



HALL

**GROWTH
AND EXPANSION**

ANNUAL REVIEW



**CELEBRATING
2019**



2019

WHAT A YEAR!

Welcome to the inaugural Hall annual review. Intended as a keepsake to look back on with fondness in years to come, it provides a glimpse into the year that was for Hall, highlighting key milestones and celebrating our achievements. I hope you enjoy flipping through the pages as much as I do!

This year has been one marked by expansion. We have expanded our fleet of dredges, our geographical boundaries and our digital capability.

Early in 2019, we acquired an amphibious dredge named *Mooloolah River*, which has spent months working at a coalmine in Central Queensland. Manufactured in Finland, *Mooloolah River* is compact, versatile, self-mobilised and the first dredge of its kind to join our fleet.

At the larger end of the scale, we procured our first backhoe dredge. Christened *Woomera*, the vessel has a 370-tonne excavator, which can dig hard soil at depths of up to 26 metres. *Woomera* commenced her first project in Australian waters in July, assisting in widening and deepening the Trinity Inlet shipping channel to allow larger cruise ships to enter the Port of Cairns.

We also expanded our geographic boundaries in 2019, with the civil marine division completing its first project in Tokelau – one of the most remote places on earth. A crew of adventurous Hall team members successfully undertook the logistically challenging project with great professionalism.

Back at home in South-East Queensland, our civil contracting division expanded our local footprint, carrying out works in Brisbane and Logan City.

Hall also adopted various new digital technologies throughout the year. Working closely with Sunshine Coast-based company The Fleet Office, we became one of the most technologically advanced civil contractors in the country, with smartphones and iPads now as integral as spanners and manuals in controlling and operating our fleet of earthmoving equipment and vessels.

Even with such significant growth, I am struck by the unique culture that is apparent in every Hall worksite across the globe. We are a family of people who love a challenge, no matter how difficult, and I can't wait to see where 2020 takes us!

C. Hall

CAMERON HALL
CEO



**WE ARE A
FAMILY OF
PEOPLE
WHO LOVE A
CHALLENGE, NO
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2020 TAKES US!**

CELEBRATING 2019



JANUARY



- › Commencement of Mooloolaba entrance channel dredging
- › Completion of Darwin Harbour maintenance dredging
- › Completion of River Breeze Stage 7 civil works at Griffin
- › Opening of Kawana Way road upgrade
- › Troy Cronin celebrates 30 years at Hall

- › Completion of capital dredging at Cairns Cruise Ship Terminal
- › Commencement of first project for Lennium Group at Emerald Hill in Brassall
- › Commencement of civil works at Prosperity development in Pallara
- › Completion of Palm Beach artificial reef in conjunction with Heron Construction
- › Second annual Dig Deeper Leadership Conference held at Twin Waters
- › Commencement of construction of lock and weir at Pelican Waters
- › \$5,000 Les and Mary Hall Family Scholarship awarded to USC student Indy Burt
- › Commencement of *Mabuiag* refit
- › Hall supports Underwater Hockey Invitational Cup held in Jabiru and Henzells Pelican Waters Foundation Charity Golf and Long Lunch Classic on the Sunshine Coast

AUGUST

- › Hall upgrades TMR prequalification status to 'R3 B2'
- › Commencement of Maloja and Tay Avenue upgrade project for Sunshine Coast Council
- › Commencement of Ritchie Road civil works at Pallara
- › Completion of wharf and ramp in Fakaofa Fale, Tokelau
- › Brendan Lenihan named Safety Champion of the Year at CCF Qld Excellence in Civil Construction Awards
- › Hall supports SunnyKids Mayoral Ball held on Sunshine Coast



SEPTEMBER

- › Commencement of Cairns Cruise Ship Terminal project
- › Commencement of Mooloolaba stormwater drainage upgrade
- › Completion of Lumsden Point capital dredging
- › *Mooloolah River* amphibious dredge arrives in Australia
- › Hall awarded Brendale Connect Stage 2A and 3A civil works
- › Hall awarded first project for Ausbuild at Pallara
- › Corey Reibelt commences apprenticeship with Hall



FEBRUARY

MARCH



- › Commencement of *Mooloolah River's* first dredging project at Newport lock and weir
- › Commencement of Pelican Waters canal dredging
- › Commencement of *Woomera* (formerly *Apia*) backhoe dredge commissioning
- › Official launch of Mooloolah River amphibious dredge on the Sunshine Coast
- › Hall supports Wishlist Fun Run held on Sunshine Coast

- › Commencement of final channel works at Nawi Island Marina development in Savusavu, Fiji
- › Commencement of piling operations at Pelican Waters for new lock and weir and Michael Street bridge
- › Commencement of NightQuarter civil works at Birtinya
- › Cairns Cruise Ship Terminal project reaches practical completion (one month ahead of schedule)
- › Completion of concreting works at Dicky Beach Family Holiday Park for Sunshine Coast Council
- › Two new A40G articulated dump trucks and a 14-tonne excavator join civil fleet
- › Introduction of the 'Hall of Fame', recognising staff who have dedicated 10 or more years of service to Hall
- › Commencement of beach renourishment works in Rosebud, Victoria

OCTOBER

NOVEMBER

- › Commencement of first project for Ingenia Communities at Chambers Flat
- › Commencement of wetlands and bio-retention basin works at Aura
- › Completion of maintenance dredging at Rosslyn Bay harbour
- › Completion of wharf and ramp in Fakaofo Fenua Fala, Tokelau
- › Phil Carn celebrates 10 years at Hall
- › Conclusion of *Mabuiag* refit
- › Second amphibious dredge purchased



- › Completion of Newport lock and weir construction
- › Opening of Bells Creek Arterial Road extension at Aura
- › *Mooloolah River* arrives in Moranbah allowing Hall team members to commence pumping tailings into containment tubes (a new tailings management technique)

- › Engineering students Georgia Kelly and Shaun Callanan graduate from university
- › Hall named a Host Employer Champion by Community Solutions
- › Hall awarded Toral Drive Stage 2B and 2C drainage works and Mooloolaba stormwater upgrade project



APRIL

MAY



- › Commencement of Maroochy Foreshore sand replenishment works (stage two)
- › Commencement of Rosslyn Bay harbour maintenance dredging
- › Completion of Lautoka Wharf iron sand export facility capital dredging
- › Completion of wharf and ramp in Nukunonu, Tokelau

- › Completion of pump station commissioning at River Breeze development at Griffin
- › Hall awarded additional subdivisional civil works at Pallara
- › Hall supports Kakadu Triathlon held in Jabiru and BOQ Maroochydhore Golf Classic held on the Sunshine Coast
- › *Woomera* arrives in Australia

DECEMBER

- › Commencement of North Harbour Stage 36 civil works
- › Hall awarded first 'R3' status project for TMR at Deception Bay
- › Completion of Steve Irwin Way upgrade for Australia Zoo
- › Karen Pelleri and Nathan Friske celebrate 10 years at Hall
- › Jamie Gripske celebrates 15 years at Hall
- › Hall supports Buderim 9 event held on Sunshine Coast
- › Jacob Castellaro completes apprenticeship with Hall
- › Hall awarded Clinton Channel dredging works in Gladstone
- › End-of-year celebrations take place across business



- › Commencement of Buderim Resource Recovery Centre bio-retention basin and sediment bay
- › Official launch of *Woomera* in Murarrie, Brisbane
- › Completion of four stages of civil works at Aura industrial estate
- › Completion of earthworks and Stage 1 civil works at Pelican Waters
- › Completion of River Breeze Stage 9 civil works at Griffin
- › Adam Guthrie celebrates 10 years at Hall



JUNE



JULY



- › New Zealand Prime Minister Jacinda Ardern officially unveils three of Hall's wharf and ramp structures in Tokelau
- › *Woomera* arrives at Cairns Cruise Ship Terminal to commence first project in Australian waters
- › Completion of *Woomera* commissioning
- › Department of Transport and Main Roads (TMR) approves Nicklin Way bridge and road upgrade in Bokarina
- › Commencement of civil works for Halcyon residential development in Buderim
- › Commencement of North Harbour Stage 18 and 19 civil works
- › Completion of civil works at Bokarina Beach
- › Swampy celebrates 20 years at Hall



**WE LOOK FORWARD TO
ANOTHER GREAT YEAR
TOGETHER IN 2020**





**NEW ZEALAND PRIME
MINISTER JACINDA
ARDERN OFFICIALLY
OPENED THE WHARF
AND RAMP STRUCTURES
ON ATAFU, NUKUNONU
AND FAKAOFO FALE
DURING HER VISIT TO
TOKELAU IN JULY 2019**



EXPANDING OUR HORIZONS



There's remote and there's *remote* – something Hall team members who have delivered works in Tokelau can certainly attest to. Situated approximately 500km north of Samoa and currently only accessible by sea, Tokelau's three coral atolls are easily some of the most isolated locations on the planet.

For many contractors, the logistics of transporting plant and materials thousands of nautical miles across the globe would fit firmly in the 'too hard' basket; however, with Hall eager to expand its presence in the Pacific Islands, the team didn't hesitate to throw its hat in the ring when the opportunity arose to undertake marine civil works in this secluded paradise.

With rising sea levels threatening Tokelauan shores and existing reef passages afforded little protection from rough seas, the Government of Tokelau contracted Hall to construct four wharf and ramp structures as well as widen and deepen the reef passages leading in to Atafu, Nukunonu, Fakaofu Fale and Fakaofu Fenua Fala.

The works took into account the expected impacts of climate change in the area over the next 50 years and have ensured ship-to-shore vessels, fishing boats and inter-island vessels can navigate the area more easily and safely.

Cameron Hall said proficiency in planning, logistics and stock monitoring had proved imperative, as any overlooked materials, pieces of equipment or spare parts would have had to spend weeks in transit.

"The team had to consider every conceivable scenario, ensuring everything required for the job was loaded onto the 55-metre barge setting sail from Brisbane," Cameron said.

"As a result of their thoroughness, there were no delays to the project. In fact, planning was so precise the crew completed the works in October 2019 with just two bags of aggregate remaining."

General Superintendent Brendan Lenihan, who headed up the project, said the remote location had made it necessary to construct the wharves and ramps using raw product.

"In Australia, you'd typically contact a concrete supplier, tell them what you want and when, and they'd deliver it to your construction site," Brendan said.

"In this case, we had to manage the whole process from sourcing the aggregate and batching the concrete on site, right through to placing it in situ and all the quality controls that came with that. Everything was built from raw product."

The team also lacked the luxury of having a workshop nearby to perform plant maintenance.

"Naturally, the salt air took its toll on plant, but it was the rough seas that had the most impact as we were constantly working in water," Brendan said.

"In Nukunonu, we were working in a minimum of 500mm of water at all times, yet our boilermaker, Grant Petersen, managed to keep all the plant running continuously.

"Many people would have the skill set to do that, but I don't think they'd have the patience and the dogmatic attitude. I genuinely believe the project could have come to a halt on quite a few occasions if we didn't have a person with such dedication in the role."

Brendan said working in and around water had also posed challenges for workers.

"The seas could be quite unpredictable at times and the water essentially didn't behave the same way in any two islands.

"FROM A SAFETY AND METHODOLOGY POINT OF VIEW, ONE SIZE DID NOT FIT ALL. EACH ISLAND WAS UNIQUE AND THERE WERE A NUMBER OF RISKS WE HAD TO MANAGE.

"We were constantly on the lookout for any sharp, submerged coral or other hazards in the water, and we were watchful of cross seas and riptides, particularly when mobilising or demobilising plant.

"An important consideration was directing workers to the safest position possible when anchoring and tying up all the ropes."

Brendan said team members were also careful to maintain the health of the marine environments surrounding each atoll in accordance with the project's environmental management plan.

"We conducted daily environmental checks and put a lot of effort into inspecting plant before any machinery entered the water to minimise the risk of hydraulic hoses blowing and other issues like that.

"Fuel, oil and chemicals were stored in a safe, banded area away from the shoreline and, naturally, there was no refuelling next to or near the water, which played a crucial role in ensuring the marine ecosystems we worked in remained in a good condition."

With Tokelau home to approximately 1,500 people, Brendan said it had been important for Hall team members to gain an understanding of each atoll's cultural norms. >>

TOKELAU IS SO REMOTE EXPAT WORKERS TYPICALLY SPENT BETWEEN THREE AND FIVE DAYS IN TRANSIT BETWEEN TOKELAU AND AUSTRALIA WHEN TRAVELLING HOME FOR THEIR ROSTERED BREAK



WORKFORCE:

8
EXPATS

12
SAMOANS

16
TOKELAUANS

"Each island has its own unique set of rules and expectations, particularly surrounding Sundays and prayer times," he said.

"To ensure we operated in a respectful manner, Jacob Restall (Operations Manager Marine/Pacific) visited the islands ahead of the rest of the crew and engaged with various stakeholders, then relayed his learnings back to us.

"We didn't work on Sundays because that was not permissible, and we were mindful of other important dates like Father's Day, where cultural celebrations typically run for three days and include a cricket competition.

"The local people were very hospitable and included us in most activities and celebrations.

"Obviously, we were there to do a job so our focus was on delivering the works, but by the same token, we were guests, so we made an effort to get involved with the various communities and we even tested our skills on the cricket pitch once in a while."

Brendan said during Hall's time in Tokelau, the team also learned about various cultural sites and rituals.

"One example is a rock in Fakaofu that the locals use when returning from a fishing expedition. If one of the fishermen has caught a surplus of fish, they leave some of their catch on the rock for others to take if they have not been as fortunate.

"It was understandably important to the Fakaofu community that we did not use that rock when anchoring or performing any other duties."

Brendan said local community members had played an important role in delivering the project, with a number of Tokelauan workers employed as machinery operators and labourers.

"We had anywhere between one and 10 Tokelauans working on each island, as well as up to eight expats and 12 Samoans.

"We all upskilled, and, having learned a range of construction techniques, some of the Tokelauan team members were empowered to build temporary seawalls for their community.

"We also introduced a range of safety measures like wearing steel-capped boots and procedures for slinging loads safely, which were entirely new to many of the Pacific Island workers."

Brendan said despite the project workforce not sharing a universal language, communication between team members had been relatively straightforward throughout the project.

"We presented daily 'toolbox' briefings twice – once in English and once in Samoan, which the Tokelauans understood in addition to their native tongue.

"Two of our team members could speak both English and Samoan and translated for us as needed, and we regularly communicated through images and signing with our hands."

"I recall on one occasion, I was advising a worker who solely spoke Samoan on the correct technique for using a rock breaker. I did have some difficulty conveying the information in that instance because it was quite technical, so I went online, showed him a number of pictures and put crosses beside the incorrect techniques and he immediately understood the point I was trying to communicate.

"While our methods of communication weren't necessarily traditional, they were effective, and resulted in more than 25 Pacific Island workers developing valuable skills in civil construction, working in and around water, batch plant operations, welding and operating power tools and machinery."

Brendan said the Tokelauan and Samoan workers weren't the only ones to learn something new throughout the project's duration.

"The locals introduced us to a variety of new foods such as pandanus fruit and taro, and we also ate a lot of tropical fruits like coconut and breadfruit.

"On each island, they held a welcome breakfast and blessing for us, then before we left, we participated in similar types of celebrations.

"Invariably, we all ate too much food, and I can confirm fresh tuna tastes totally different to (and far better than) tuna from a can!"

CAIRNS CONTRACT A COMPANY FIRST

Hall's newly acquired backhoe dredge, *Woomera*, was put to the test in Australian waters for the first time in 2019, assisting in widening and deepening the Trinity Inlet shipping channel as part of the \$127 million Cairns Shipping Development Project.

General Manager Dredging – Project Delivery Mark McCurdy said the project highlighted an expansion of Hall's capabilities, with backhoe dredging works previously having been limited to overseas contractors.

"Traditionally, our dredging fleet has been comprised solely of cutter suction dredges, which pump material to a discharge location as opposed to excavating it," Mark said.

"The acquisition of *Woomera* has diversified our service offering and enabled us to compete for backhoe dredging contracts for the first time in our history."

Mark said Scandinavian contractor Rohde Nielsen had engaged Hall to dredge approximately 50,000m³ of stiff clay at the Port of Cairns.

"We were tasked with establishing barge loading and unloading facilities, erecting silt fencing, excavating the material and stockpiling it for future use," he said.

"An important element of our role was acid sulphate soil management, and we rigorously tested all dredged material, treating any acid sulphate soils present and retesting them to ensure they could be stored safely.

"With Rohde Nielsen using its split hopper suction dredge *Balder R* to dredge overlying soft clays from the channel, Hall also installed and operated two booster pumps and more than 8km of pipeline to pump this material to a deposition area 5km inland.

"Using a discharge barge, we deposited the material evenly across the disposal pond.

"Our team also conducted regular water quality testing to ensure water from the pondage system was safe for release before pumping it into a local waterway and dewatering the remaining material."

Mark said the works had allowed superyachts and cruise ships up to 300 metres in length to access the port.

"More than 100 cruise ships are forecast to journey to the Port of Cairns annually by 2031, bringing with them increased visitor numbers and contributing significantly to the local economy.

"We're proud to have been involved in such a significant project for Queensland and to have successfully delivered our first backhoe dredging contract in our home state."



HALL'S FIRST BACKHOE DREDGING PROJECT

BEACHSIDE BUILD

It's part of the award-winning Oceanside development, one of the Sunshine Coast's fastest growing beachside communities, and according to Project Manager Brett Fairlamb, Bokarina Beach was the most diverse civil project Hall undertook in 2019.

"It's not often a project requires such a wide array of works in one location, but we jumped at the opportunity to work with Stockland once again and deliver the final residential precinct in Oceanside," Brett said.

"Our role encompassed everything from vegetation translocation and acid sulphate soil management, right through to the construction of roads, sewerage and water infrastructure, a lake, jetty, rising main, salinity pump station and boardwalk.

"Hall was also tasked with building a multi-lane bridge and pedestrian underpass on neighbouring Nicklin Way and upgrading the busy road to six lanes."

Brett said environmental considerations had been paramount throughout the project, with the area a native habitat for turtles, frogs and other wildlife.

"As part of the species management plan, we preserved the existing wetlands and translocated around 2,000m² of vegetation to ensure protected species like the wallum froglet and swamp crayfish were not negatively impacted.

"This involved picking up the vegetation with a custom-built excavator attachment and transferring it to a site approximately 400 metres away.

"The works were highly successful, with 100 per cent of the vegetation regrowing following the translocation."

Brett said the team had made every effort to mitigate its footprint within the Bokarina wetlands and surrounds.

"A lot of careful planning went into reducing the number of machines tracking across the dunes when constructing the new beach access, ensuring there was minimal disruption to the turtle nesting grounds," he said.

"Building an elevated boardwalk allowed us to preserve the wetlands underneath, and we removed weeds and re-established native flora in the area, which helped to improve the health of the local ecosystem."

Brett said one of the most challenging aspects of the project had been the ongoing management of acid sulphate soils and water quality within the new lake.

"We used lime to treat the acid sulphate soil and balance the water's pH levels, and undertook continual water quality testing to determine when the lake could safely house fish and other marine life.

"Wet weather events certainly put us to the test, and we had to be proactive in constructing bunds and rock checks to reduce the flow of water and manage run-off, as discharge from the area is directed south to Currimundi Lake and out into the sea.

"Our team was able to safely remove the bund separating the water body from Lake Kawana in April, marking a major project milestone."

General Manager – Civil Dan Grey said construction of the bridge had also brought its own share of challenges.

"More than 40,000 vehicles travel on Nicklin Way every day, and we were tasked with keeping all four existing lanes open during normal commuting hours," Dan said.

"Project staging and a well thought-out traffic management strategy were crucial in keeping traffic flowing smoothly.

"We built a side road and directed traffic onto it while we constructed the southbound side of the bridge, then shifted traffic onto the newly constructed lanes while we built the northbound side.

"We also worked with Stockland to engage with local community members and provide them with regular updates.

"We're proud to confirm there were no issues with traffic and no complaints received throughout the construction period."

Dan said the bridge was the biggest one Hall had constructed to date, with the build consistent with a B3-rating under the Department of Transport and Main Roads' (TMR) prequalification system.

"This project presented a great opportunity to showcase our infrastructure capabilities and we look forward to undertaking more works of this nature in the years to come.

"Having upgraded our TMR prequalification status to 'R3 B2' in August, we can now tender for complex TMR bridge and road construction projects in addition to private development projects like this one, helping us to further grow and diversify the business."

Hall wrapped up civil operations at Bokarina Beach in July and will continue working alongside Stockland on other projects in 2020.



MORE THAN
40,000
VEHICLES TRAVEL
ON NICKLIN WAY
EVERY DAY



HEADING NORTH

IN 2019, HALL EXPANDED ITS EXISTING FOOTPRINT IN CENTRAL QUEENSLAND, UNDERTAKING TAILINGS MANAGEMENT WORKS IN MORANBAH AS WELL AS MAINTENANCE DREDGING IN ROSSLYN BAY HARBOUR.

CEO Cameron Hall said the Rosslyn Bay project team dredged approximately 24,000m³ of silt, sand and gravel from the entrance channel and a number of internal channels within the harbour between July and October, improving access for deeper draft vessels.

“Rosslyn Bay is a common departure point for island cruises, fishing charters and ferry transfers, and with tidal movements generating sediment build-up in the harbour, the area requires maintenance dredging every few years to remain accessible,” Cameron said.

“The works took just over three months to complete, with the various marinas housed within the harbour remaining operational at all times.”

Cameron said the project – funded through the state government’s \$30 million Marine Infrastructure Fund – saw the dredged material pumped more than a kilometre to an approved discharge site.

“Water quality was an important consideration throughout the project, and our team performed ongoing plume monitoring as well as megafauna observation as part of our broader environmental management plan, ensuring there was minimal impact on the surrounding environment,” he said.

“We also had to contend with south-easterly swells that made dredging challenging at times.

“While these conditions slowed our progress, the crew capitalised on more favourable conditions whenever present to ensure the job could still be completed on schedule.”

Cameron said the project wasn’t the only one cutter suction dredge *Warraber* undertook while stationed in Rosslyn Bay, with the vessel also assisting the Department of Transport and Main Roads with commissioning two new pontoons.

“A number of other local stakeholders including the Queensland Police Service and Capricornia Cruising Yacht Club also engaged our team to carry out dredging works, improving access to their respective facilities within the harbour.”

Cameron said Hall had undertaken works in other parts of Central Queensland in past years and he was eager to continue expanding the company’s presence in the region and beyond.

“Hailing from the Sunshine Coast, we traditionally undertake a lot of projects in South-East Queensland and will continue to do so, but we’re also looking forward to making our mark in other parts of the state including North Queensland, where we will soon commence construction of a rock wall at the Port of Townsville.”



**ALL MARINAS IN THE
HARBOUR REMAINED
OPERATIONAL
THROUGHOUT THE
3-MONTH
PROJECT**



BUILDING BIG

It's far from the first navigational lock Hall has built in its 73 years of operation, but Newport lock holds the title of the largest and most sophisticated of its kind in Queensland, and the largest Hall has built to date.

Sunshine Coast Operations Manager Alex Brouard said Stockland had engaged Hall to construct the lock and accompanying weir as well as an elevated pedestrian bridge at its residential community in Moreton Bay.

"The structure enables vessels to enter the newly constructed lake at Newport from the neighbouring Albatross Canal and Deception Bay," he said.

"It can accommodate vessels up to 18 metres long and 5.5 metres wide and features a fully computerised key card and remote key fob operating system."

Alex said the lock included traffic signals, emergency trip stops and a 3D laser scanner to aid safe navigation.

"Pedestrians are also able to walk around safely when the lock is in use, with the pedestrian bridge designed to rise when the lock gates are open."

In addition to constructing the lock and weir, Hall also installed a salinity intake system and pump station as well as two pontoons as part of the project.

Alex said the team had taken an innovative approach to laying the salinity pipeline, engaging scuba divers to assist the crane operator in manoeuvring it into position.

"Typically, we would build a bund between the construction area and the ocean enabling us to install the infrastructure in dry conditions, but in this instance, our alternate approach presented significant time and cost savings while still achieving a quality outcome," he said.

Alex said working in a confined space had posed its fair share of challenges, but Hall had been able to overcome these with careful planning.

"We kept the harbour master abreast of works in the canals at all times and meticulously scheduled our activities to minimise any inconvenience to the local boating community.

"We also used drone photography to ensure the project team had up-to-date maps of the area and could coordinate works safely and efficiently."

Construction concluded in April 2019, with the works spanning 19 months.



25,000 CUBIC METRES
BULK
EARTHWORKS

1 SALINITY INTAKE
STRUCTURE AND
PUMPING SYSTEM

1 PUMP
STATION

2 PONTOONS

MECHANICAL
AND ELECTRICAL
WORKS

2,000 CUBIC METRES
STRUCTURAL
CONCRETE



RANGER REHABILITATION IN FULL SWING

With one of Australia's longest-running uranium mines, Ranger Mine, ceasing open-cut mining operations in 2012, attention has turned to decommissioning and rehabilitating the site in recent years.

As part of the Ranger Mine Closure Plan, Energy Resources Australia (ERA) and parent company Rio Tinto contracted Hall in 2015 to dredge and reclaim approximately 24.7 million m³ of uranium tailings.

Project Manager James Clark said Hall's operations had expanded significantly on site in 2019, with the project workforce doubling to accommodate a second cutter suction dredge, *Brolga*.

"Initially, Hall used *Jabiru* – ERA's custom-designed dredge – to transfer material from the Tailings Storage Facility to a lined burial pit on site," James said.

"*Brolga* joined in operations in August this year, increasing our dredging capability.

"Put simply, our role is to operate and maintain the two dredges, ensuring they can run around the clock.

"We move the tailings to an open pit, and ERA then treats the water using its brine concentrator."

General Manager Dredging – Project Delivery Mark McCurdy said strict safety and environmental controls were in place to prevent contamination of the surrounding national park.

"The Tailings Storage Facility we work at is a controlled area and nothing can leave the site without being inspected and properly cleaned. That includes everything from tools and personal protective equipment (PPE), right through to vehicles," he said.

"ERA is tasked with processing the material and carrying out site-wide environmental monitoring and water quality testing, and our team is very vigilant in abiding by the stringent regulations in place."

Mark said Hall also enforced rigorous safety protocols to protect the health and wellbeing of workers, and as a result, the company had never experienced any instances of radiation contamination among team members.

"Our workers wear appropriate PPE for the activity they're undertaking on site on any given day.

"While safely working around acid soils and acid tailings water has naturally been a principal focus area for this project, we've also made a concerted effort to address less obvious risks like dehydration, which can be easy to underestimate if workers have not previously worked in a tropical climate," he said.

"The build-up leading into the Northern Territory's wet season is particularly challenging, with temperatures soaring and humidity increasing significantly during this period.

"To address this, we educate our team members via 'toolbox' briefings and prominent signage, hold frequent water breaks, and ensure fresh fruit, water, Hydralyte and electrolyte ice blocks are readily available.

"We also conduct regular hydration tests and offer additional coaching to staff where needed.

"Most importantly, our team members all support each other in dealing with the extreme heat. If someone notices a colleague starting to fatigue, they'll make sure they take a drink and offer them a rest break.

"James and his supervisors lead the charge on that for Hall and manage the team really well."

Mark said one challenge Hall had faced while working on the project was logistical difficulties posed by the mine's remote location.

"Ranger Mine is situated approximately 260km south-east of Darwin and road access can sometimes be cut off for weeks at a time during the wet season," he said.

"To minimise disruptions to the project, we undertook a lot of detailed planning in the initial stages, mapping out the spare parts we were likely to require and estimating when we thought these would be needed.

"While we keep a lot of stock on site, every now and again we need to fly in a part from interstate or overseas.

"Having a really robust stock management system has ensured these instances are few and far between, minimising project down time and allowing us to get on with the job.

"The team has done a fantastic job in getting the system up and running, ensuring dredging works have remained on schedule."

Hall's operations at Ranger Mine are expected to conclude in late 2020.



GROWTH SPURT

MOOLOOLAH RIVER MAKES A SPLASH

Shallow water projects got a whole lot easier in 2019, following the arrival of Hall's brand new amphibious dredge, *Mooloolah River*, in February.

The \$1.3 million dredge is the first in Hall's fleet with the ability to operate both on land and in water. Its compact design and ability to mobilise itself make it possible to tackle a range of projects that previously would have posed accessibility challenges.

In addition to removing sediment and invasive vegetation from waterways, *Mooloolah River* can also deepen shallow waterways, assist with flood mitigation and clean urban canals, rivers and tailings ponds.

Hall family member Helen Hall christened the vessel at a ceremony on the Sunshine Coast in March. A range of dignitaries including Federal Member for Fisher Andrew Wallace, State Member for Ninderry Daniel Purdie, State Member for Kawana Jarrod Bleijie, Sunshine Coast Deputy Mayor Tim Dwyer and Sunshine Coast Councillor Greg Rogerson attended the celebration.

DREDGE ACQUISITION AN AUSTRALIAN FIRST

Hall became home to the largest Australian-owned backhoe dredge in 2019, welcoming *Woomera* – a Backacter (BA) 900 – to its fleet.

As the company's first backhoe dredge, *Woomera* has enabled Hall to expand its service offering and undertake dredging projects that were previously limited to overseas contractors. The dredge makes it possible to excavate hard material like rock and clay in confined locations.

Woomera was officially unveiled in Brisbane in June, with Hall Director Tory Richards christening the new vessel.

**DESIGNED IN THE NETHERLANDS,
WOOMERA SPANS 65 METRES IN
LENGTH AND CAN DREDGE DEPTHS
OF UP TO 26 METRES.**

NEW PLANT READY TO ROLL

Christmas came early for the workshop team, who welcomed two brand new A40G articulated dump trucks and a 14-tonne excavator in November.

The dump trucks are designed for heavy hauling in off-road locations and can easily climb steep gradients. Their dump support system increases stability in rugged terrain and their on-board weighing system maximises production, boosts fuel efficiency and reduces machine wear.

Crews in Brendale were the first to put the trucks through their paces, while team members working on the Caloundra Coastal Path tested out the new excavator.

MABUIAG GETS MAKEOVER

Cutter suction dredge *Mabuiag* underwent a refit in 2019, with the dredging maintenance team travelling to Port Hedland in September to undertake a range of works.

The team rebuilt the dredge pump and winches, repaired the engines and pontoons, fitted new handrails and much more. The month-long works addressed wear and tear *Mabuiag* sustained during the Lumsden Point dredging project and improved the condition of the vessel as part of Hall's ongoing fleet maintenance efforts.

Team members Chris, Mark, Braeden, Justin and Hayden finished the refit on time and under budget.



WOOMERA
FEATURES A MASSIVE
370-TONNE
EXCAVATOR



CORE TECHNOLOGY

Work smarter, not harder.

It's the age-old adage that has businesses striving to improve their systems and processes, and in Hall's case, it drove the implementation of an online management system in 2019 that successfully streamlined the company's health, safety, environment and quality (HSEQ) procedures.

Environment & Quality Assurance Manager David Honour said as part of the overhaul, Hall had consolidated and digitised a number of formerly paper-based procedures, generating time efficiencies and allowing staff members to access up-to-date information regarding training, plant and projects.

"This year, the team at The Fleet Office helped us deliver online pre-starts for all of our mobile plant," David said.

"They also built an online platform that manages our staff's training requirements, verifications of competency and online inductions.

"In addition to this, we rolled out HammerTech – a platform that manages subcontractors and centralises HSEQ audits, site inspections and equipment inspections.

"Detailed reporting allows us to track our performance and continually improve our HSEQ outcomes.

"We're also preparing to introduce online incident reporting in the near future, ensuring all key forms and records are at workers' fingertips."

Human Resources Manager Tara Williams said the changes had made inducting workers onto site more efficient, saving time and enabling them to start work sooner.

"Workers complete an online induction prior to arriving on site, and the system captures all of their qualifications and tickets," Tara said.

"It also advises which other qualifications are essential to start work (if any), which ones will be required in the first six months of the role and which ones are desirable if time permits.

"One of the biggest benefits is that site engineers and foremen can view their crew members' qualifications in real time rather than relying on a spreadsheet that might not be updated straight away, so the data they're accessing is always up to date.

"The system also issues an alert if a team member's licence is approaching its expiry date so we can address this in plenty of time."

Civil Asset Manager Rob Fearn said data entry and doubling handling of records had reduced significantly since introducing the new online management system.

"Previously, pre-start checklists were all paper based, so the foreman at each site would have to walk around and collect them all, then bring them to head office for manual processing," Rob said.

"For non-urgent issues reported on a Monday, the earliest we could address them was the following Monday.

"Now, every team member can download The Fleet Office app on their mobile phone, select the piece of plant they're assigned to operate and run through the pre-start checklist electronically.

"Any issues flag with the relevant foreman and maintenance requests are automatically logged for our field services team so we can address concerns promptly.

"This frees up our admin staff and also saves me a lot of time, as we no longer have to manually trawl through hundreds of pre-start checklists every week."

Rob said he was also able to track the location and performance of plant through The Fleet Office's online portal.

"I can see where all the machines are, what they've been up to, how efficient they've been, how many hours they've worked, what outstanding work orders they have and when they're due for a service, all from my computer or phone," he said.

"If I'm on a job site, I can simply point my phone at a particular piece of equipment while logged into the augmented reality app and all the information will appear on screen.

"These details help with scheduling and monitoring whether a job is progressing as it should be, and also enable me to make informed choices when purchasing new plant.

"For example, if I see that one brand of excavator uses significantly more fuel per hour than another when all other factors are equal, I'll know to select the more cost-effective model when placing future orders.

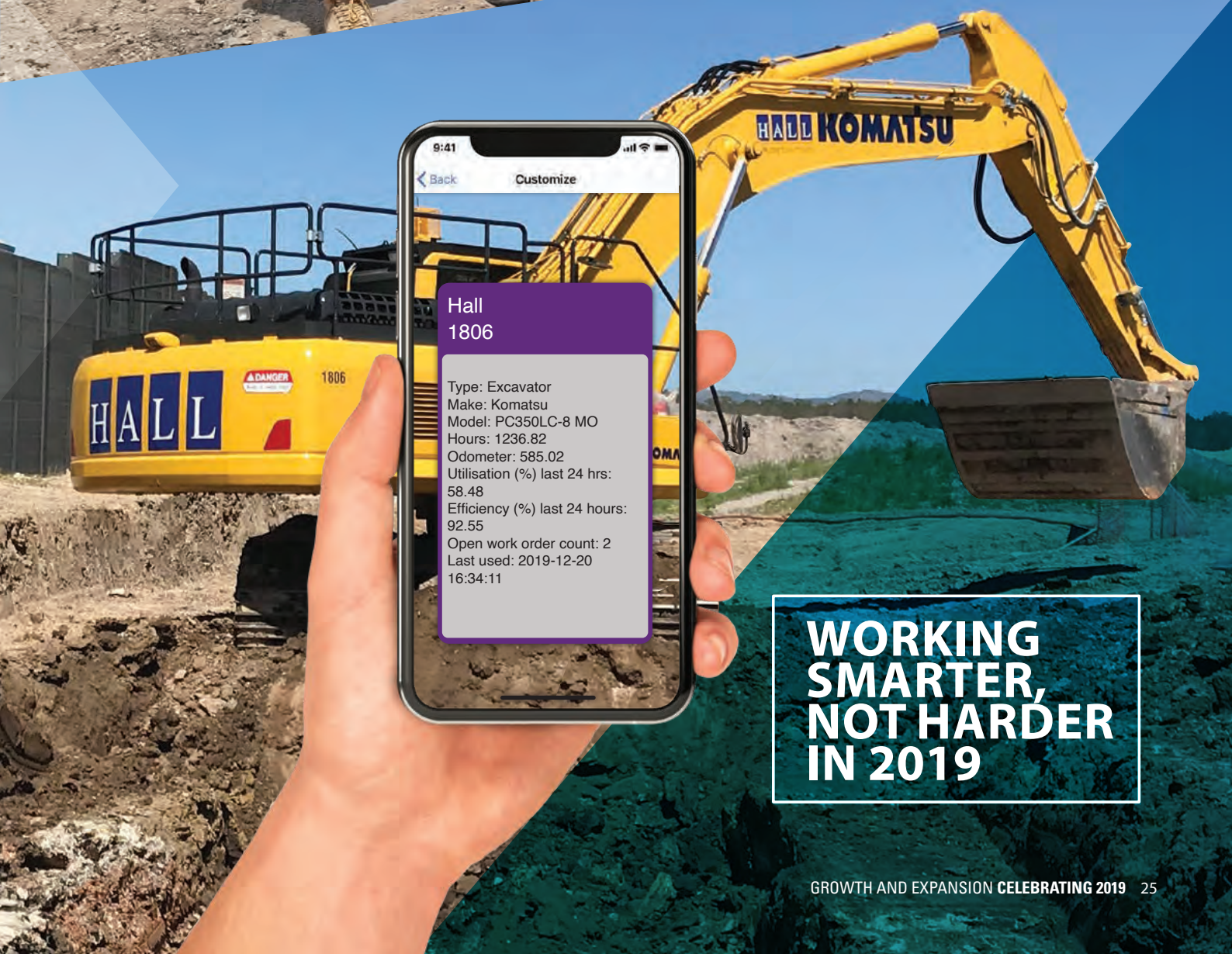
"I can also see when machines are idling excessively, so we were able to address this in 2019 and minimise our fuel consumption."

Rob said the system's GPS tracking technology had proved particularly useful over the Christmas break, when three utes and a minibus were stolen from Hall's head office.

"We were able to track the vehicles in real time and advise police of their location, leading to a number of arrests.

"We recovered all four vehicles, which we may not have been able to do without this invaluable technology."

Hall intends to continue working with HammerTech and The Fleet Office in the coming years to further expand and improve the online management system's capabilities.



Hall
1806

Type: Excavator
Make: Komatsu
Model: PC350LC-8 MO
Hours: 1236.82
Odometer: 585.02
Utilisation (%) last 24 hrs:
58.48
Efficiency (%) last 24 hours:
92.55
Open work order count: 2
Last used: 2019-12-20
16:34:11

**WORKING
SMARTER,
NOT HARDER
IN 2019**

LEADING THE WAY

DIG DEEPER LEADERSHIP CONFERENCE

More than 50 staff members came together at Novotel Twin Waters Resort in September to participate in Hall's second annual Dig Deeper Leadership Conference.

The event aimed to educate, entertain and inspire team members in leadership positions, equipping them with valuable skills to assist in leading their respective teams.

Attendees were provided with a company and systems update, and treated to a keynote presentation from leadership expert Matt Church – one of only eight

people inducted into the Australian Speaker Hall of Fame. They also had the opportunity to network with their peers.

The team-building activity held in the afternoon saw each team compete in a series of challenges and build a bicycle. The highlight of the day was a surprise visit from children receiving assistance from Deaf Children Australia, who were the lucky recipients of the eight bikes Hall staff members assembled.





AWARDS AND MILESTONES

COMPANY COMMENDED AT AWARDS EVENING

Hall was recognised for its efforts in creating career pathways for young adults at the Community Solutions Apprentices and Trainees Awards Night in April, earning the title of Host Employer Champion.

Estimating Manager Phillip Carn said the accolade celebrated 15 years of assisting Sunshine Coast youngsters to gain qualifications in their chosen trade.

"To date, we've hosted 40 apprentices and trainees studying in a range of areas including diesel fitting, mobile plant technology, civil pipe laying and civil construction," Phillip said.

"There are so many motivated young people living locally and it's really rewarding to be able to introduce some of them to the civil and marine construction industry and assist them to become competent, qualified tradespeople.

"We're thrilled to have received recognition for our efforts and look forward to bringing more apprentices and trainees on board in the coming years."

Apprentice Wayne Hawke said he enjoyed getting to work on a range of civil construction and dredging equipment as he trained to become a qualified diesel fitter.

"A typical day for me involves carrying out welding and diagnostics, and working with hydraulics and gears," Wayne said.

"I've got a great group of people around me and I really enjoy the hands-on learning environment."

In addition to hosting apprentices and trainees, Hall also employed a number of undergraduate and graduate engineers in 2019 as part of its commitment to local youth employment generation.

MAKING WAVES

Hall's Marine Asset Manager Ben Weedon made a name for himself on the world stage in 2019, becoming one of only 15 people in the world to be appointed to The Nautical Institute's Younger Members' Council.

The Nautical Institute is a non-governmental organisation that has consultative status with the International Maritime Organization, and it represents the opinions of seafarers and maritime workers across the globe.

Ben's peers nominated him for the role, and he journeyed to London in December to discuss industry issues and champion the views of fellow young maritime professionals based in Australia and the Pacific Islands.

General Manager Dredging – Project Delivery Mark McCurdy commended Ben on the appointment.

"This is an achievement of the highest level and highlights Ben's extensive expertise and commitment to ongoing improvement," Mark said.

"It's fantastic to see him recognised as a world leader in the maritime industry and we're incredibly proud of his accomplishment."

The Nautical Institute received close to 100 applications from around the world, with Ben selected for the position due to his outstanding teamwork and leadership skills, as well as his awareness of maritime issues.



PACIFIC ISLANDS PROJECT IN SAFE HANDS

Hall team member Brendan Lenihan was recognised for his commitment to safe work practices in 2019, with the Civil Contractors Federation Queensland (CCFQ) naming him Safety Champion of the Year at the CCFQ Excellence in Civil Construction Awards held in August.

Hall Health and Safety Manager Gordon Beddoe nominated Brendan for the accolade, which shines the spotlight on workers who demonstrate an outstanding commitment beyond normal responsibilities to improving health and safety in their workplace.

Gordon said Brendan had enforced Australian safety standards when overseeing the Tokelau wharf and ramp project, educating team members about safe work procedures and mandating steel-cap boots and high visibility clothing despite this not being standard practice in the Pacific Islands.

"With many workers on the project hailing from Samoa or Tokelau, Brendan also arranged for daily briefings to be delivered in multiple languages," Gordon said.

"He presented safety information in picture form and provided regular hands-on instruction to eliminate any confusion resulting from language barriers.

"Safety is such an important focus area within Hall and we're thrilled to see Brendan recognised for his efforts."

10 YEARS ON AND GOING STRONG

Hall and Fortescue Metals Group (FMG) marked a significant milestone in 2019, celebrating 10 years of collaboration.

After successfully dredging tailings at FMG's iron ore facility in Western Australia a decade ago, Hall was engaged to dredge a new tug facility and approach channel at Port Hedland in 2016 and 2017.

Most recently, our team dredged 1.3 million m³ of sand, gravel and conglomerate material in the Pilbara on behalf of FMG to form the proposed Lumsden Point General Cargo Facility approach channel, swing basin and berth pockets.

Hall CEO Cameron Hall and Business Development Manager William Blank met with FMG CEO Elizabeth Gaines and colleague Matthew Anderson in Perth in April to mark the occasion.

We're proud to have worked alongside FMG for such a substantial period of time and look forward to building on this relationship in the future.

1. Phillip Carn accepting award at Community Solutions Apprentices and Trainees Awards Night.

2. Ben Weedon, who has been appointed to The Nautical Institute's Younger Members' Council.

3. Cameron Hall and Brendan Lenihan celebrating CCFQ award win.

4. Cameron Hall and Business Development Manager William Blank with FMG CEO Elizabeth Gaines and colleague Matthew Anderson.



GIVING BACK

CHARITY SUPPORT IN THE BAG

Queensland kids entering foster care and group homes were given a reason to smile this year, with Hall joining forces with not-for-profit Sweet Dreams and Good Night Wishes to compile 'care bags' containing everyday essentials like clothing and personal care items.

With Hall matching every generous donation from staff members, the team collectively managed to compile 82 bags.

Sweet Dreams and Good Night Wishes founder Melissa Kennedy said in addition to pyjamas; a set of clothes; underwear; socks; a toothbrush; hairbrush; hair ties; and a book, each care bag also included a cuddly toy to offer comfort in times of distress.

"Children typically enter care under traumatic circumstances and with no personal belongings other than the clothes on their back," Melissa said.

"This can be particularly challenging if the children arrive at their placement late at night, leaving carers unable to purchase items for them.

"We make sure all items in the bags are new as a stigma exists around children in foster care having second-hand belongings, which can make them feel unworthy and unimportant.

"We want them to know they are valued, and that everything in the bags is new and chosen especially for them."

With Hall promoting the initiative via print, radio, television and online media across Queensland, Sweet Dreams and Good Night Wishes attracted volunteers to transport bags to care agencies in Rockhampton and Mackay. The organisation previously lacked the resourcing to do this, but can now help children in these areas, as well as locally.

The media coverage generated also prompted Sunshine Coast community members to donate a large number of bags to the cause throughout September, with the charity collecting more than 1,000 bags across South-East Queensland throughout the campaign period (an increase of around 300 per cent from the previous collection period).

KAKADU ATHLETES DARE TO TRI

More than 100 fitness enthusiasts took part in the Kakadu Triathlon on 11 May, raising vital funds for aeromedical charity CareFlight Top End.

With a number of Hall team members living and working in the town of Jabiru, Hall is proud to be a part of the local community and to have sponsored this event once again in 2019.

Now in its fifth year, the triathlon included a 250-metre (croc-free!) swim, a 10km bike ride and a 2.5km run.

This isn't the only community initiative Hall has supported in Jabiru this year, having also helped fund the inaugural Under Water Hockey Invitational Cup held in September.

A RUN FOR OUR MONEY!

A handful of Hall team members dusted off their running shoes and pounded the pavement in the name of charity on Sunday, 31 March, participating in the Wishlist Fun Run 2019. Participants had the option of tackling the 10km track, or taking a more leisurely stroll or run around the 5km course.

The event – held at Lake Kawana – raised funds for Sunshine Coast hospital patients and their families, with Hall proud to sponsor the event for the third year running.

1. Cameron Hall presented USC engineering student Indy Burt with the \$5,000 Les and Mary Hall Family Scholarship in September.

2. A handful of Hall team members attended the 2019 SunnyKids Mayoral Ball. Hall was a Gold Partner, supporting at-risk children.

3. Hall once again sponsored Buderim 9 – a 76km community cycling event that raises funds for Queenslanders with cerebral palsy and other physical disabilities. Hall team member Craig Turner took part in the event and finished in the top 10!

4. Hall continued to sponsor West Fiji Dolphins rugby league club in 2019.



11 CHARITIES & COMMUNITY GROUPS SUPPORTED



Image credit: Cade Mooney.





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