

JOINING FORCES TO SECURE THE HUNTER'S WATER FUTURE

When the Hunter Water Corporation embarked on a major upgrade program, they brought together two of the biggest names in the business.

In March 2009 Hunter Water Corporation established the Hunter Treatment Alliance with a joint venture between Abigroup and CH2M HILL to undertake a \$240 million program of nine Wastewater Treatment Upgrades over a five year period. The Hunter Treatment Alliance is a ground-breaking public-private partnership to achieve value for money and share knowledge through a cooperative design, procurement and project delivery group.

The Alliance framework is a delivery platform which allows a much greater degree of collaboration between Hunter Water and its design and construction partners than alternative delivery strategies. HTA is structured to enable one team to manage,

undertake design and carry out construction across the whole program of works. This provides a range of efficiencies and allows the lessons learnt from one project to be shared and implemented within the next.

A centralised 'head office' was established in Newcastle in 2009 to integrate and co-locate staff from the different alliance partners to facilitate collaboration and delivery.

Key staff located in this office includes the program management team, designers, construction personnel, environmental, communication and safety managers and the procurement and commercial teams. There is a high level of integration between

all parties which promotes extensive and effective collaboration across all the projects.

The Hunter Treatment Alliance delivery model has proven to be a time and cost effective structure for the delivery of large scale treatment projects. The Hunter Treatment Alliance has recently completed significant upgrades of Hunter Water Wastewater Treatment Works at Branxton, Paxton, Boulder Bay, Burwood Beach, ABF Tower, Toronto, and Shortland. In addition, the Farley upgrade is nearing completion.

Hunter Treatment Alliance projects have ranged from \$5 Million to \$40 Million in value and encompass all aspects of project delivery from planning and community consultation, design, construction, commissioning and project handover. In addition the treatment technologies used to provide the appropriate solutions range from traditional primary treatment to advanced technology including membrane bioreactors,

microfiltration, reverse osmosis,

ultraviolet disinfection and odour control systems. A number of innovative programs have set the HTA program apart from common practice. These include innovation in planning, design and construction, SMART (Save Money And Reduce Time) Awards for Innovation, development of Key Performance Indicators, Quality Management Program and strategies used for the selection and management of sub-contractors.

The Hunter Treatment Alliance is committed to completing its program of works 'Incident and Injury Free'. To assist in achieving this goal the organisation introduced an Occupational Health and Safety (OH&S) program called Think SAFE. Live SAFE. Work SAFE. This philosophy being worked on the Hunter Treatment Alliance has proved our excellence in safety leadership with statistics showing that more than 950,000 hours have been worked on the Program with only a single Lost Time Injury.

The Hunter Treatment Alliance has a rigorous structure for managing safety and environmental risks. Risk Assessment meetings are conducted early in project planning to identify and control quantified hazards or risks associated with the construction of projects.

These sessions encourage the identification of unquantifiable hazards, risks or events that may have an impact on the project delivery. The focus of these sessions is not solely about cost and value for money but predominantly to identify and integrate elements relating to Safety, Environmental and Quality performance.

The Hunter Treatment Alliance program adopts a process of Construction Work Package (CWP) development. Construction Work Packages provide the strategy for delivery and are required prior to commencement of major construction works. Activities that involve legislated or predetermined high risk activities such as structure construction, cut in or shutdown activities are also included. Construction Work packages include; design references, construction schedules, subcontractor engagement timelines, external permits and licences, Work Method Statement requirements and Process Control Plans (PCP). During the process relevant hold points and accountabilities are assigned. This process ensures a level of consultation and integration of all program disciplines associated with, or required to perform, the activity.

For more information contact Hunter Water, phone 1300 657 657, website www.hunterwater.com.au



ACCESS ALL AREAS



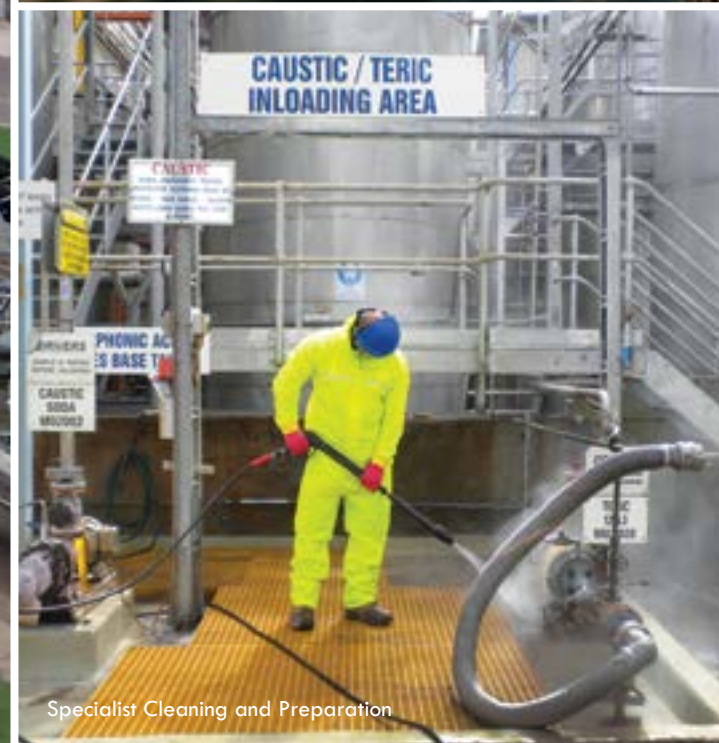
Water Infrastructure and Australian Concrete Repair Group



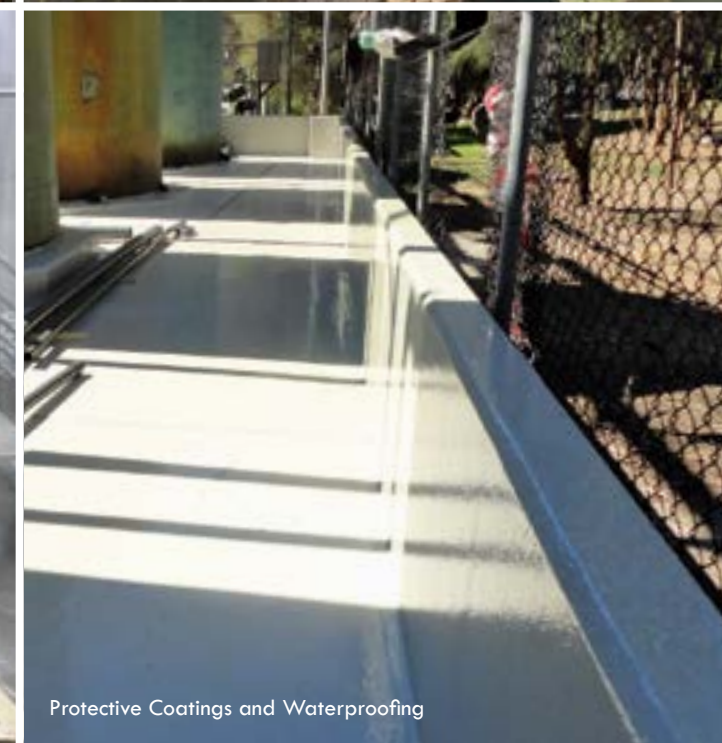
Repairs and Resurfacing



Diagnosis, Testing and Remedial Solutions



Specialist Cleaning and Preparation



Protective Coatings and Waterproofing

While water may appear to be a benign substance, water treatment plants are in fact very vulnerable to damage by both water and air borne contaminants.

Therefore protecting water plant infrastructure is a very important and specialised area that is vital to ensure the longevity of every aspect of a treatment plant.

Engaged by the Abigroup (Lend Lease) to work on the Hunter Treatment Alliance (HTA), Australian Concrete Repair Group P/L (ACR Group) are highly specialised in all aspects of concrete restoration, preservation and protection. Utilising their experience and the latest technologies, they have the ability to preserve and protect any type of concrete or masonry based structure.

Based in the Central Coast region of New South Wales, ACR Group provide extensive remedial solutions to a diverse range of industries including Water & Waste Water Infrastructure, Civil Infrastructure, Marine, Mining, Commercial, Industrial and Residential. Within these industries individual projects vary greatly, with ACR Group having worked on everything from multi story residential assignments, through to complex multi-million dollar infrastructure.

ACR Group was established in 2008, by directors David Patten and Dean Osborne who have over 40 years of combined experience in the remedial and construction industry – including 16 years with worldwide product manufacturers in technical and advisory roles. For the HTA ACR Group

supplied and installed protective coatings, linings and repair systems to concrete and masonry structures. This included structures such as sewage inlets, grit tanks, clarifiers, chemical bunds and tanks at a number of the plants. These specialised coating are designed to help protect and preserve the structure's substrate from attack and degradation caused by contaminants.

To ensure the success of this type of work it is crucial to correctly perform the remediation and preparation of new and existing substrates, to support the performance characteristics and longevity of the new protective systems. As a result, the company utilised various teams of highly qualified remedial technicians which were engaged on several different projects across the HTA.

As part of the HTA team, ACR Group came on board to provide their expert resources and quality systems to the project, while overcoming a number of specific challenges.

Naturally having any water treatment plant near a populated area out of action is an issue. So careful planning was required to ensure that they could conduct the works without adversely compromising the operational aspects of the plant, or inconveniencing the public.

The other challenge was that much of the work needed to be complete in confined spaces with difficult access, with the presence of hazardous substances. However ACR Group have highly skilled, confined space certified crews which specialise in all aspects

of protective coatings including heavy duty chemical resistant coatings and epoxies, crystal growth formulas, silane treatments, carbon and chloride resistant coatings. Their extensive knowledge and experience enables them to engage in even the most challenging of application types on any size project.

Having completed a number of projects for Hunter Water, ACR Group believe that the consultative, team approach adopted by HTA has enabled them to provide a great result. This collaborative effort, combined with their vast industry experience, enabled the company to provide effective solutions and overcome some challenging circumstances.

ACR Group provide services to a number of other clients Australia wide, this consists of

critical infrastructure for various local councils and government departments – including the Roads and Maritime Services, Sydney Trains and the Dept of National Parks, Sydney Water, Department of Defence, Sydney Catchment Authority, Department of Commerce and research facilities, such as CSIRO and ANSTO. These projects include concrete remediation work, providing waterproofing and protective coating systems, road and bridge refurbishments, epoxy injection work, crack repair, carbon fibre reinforcement, WWII Heritage Sites and Central Station upgrade.

For more information contact the Australian Concrete Repair Group Pty Ltd, 9/7 Teamster Close, Tuggerah, NSW, 2259, phone 02 4355 4881, fax 02 4355 4778, website www.acrgroup.com.au



NO JOB TOO TOUGH FOR GEOSURV

Specialising in land and construction terrain as well as engineering and resource projects, Geosurv is not afraid to tackle the most challenging projects.

“We try to look for the more difficult projects rather than the easy ones,” Geosurv Director Michael Croft explains. “Geosurv has carried out substantial work for the resource and energy sectors. We have completed electrical work, solar farms and a number of wastewater projects, often working in remote areas.”

Given its extensive experience in the engineering and resources sector, undertaking projects within the Hunter Treatment Alliance for Lend Lease and Hunter Water was a natural fit. Geosurv did anything from design detail right through to construction, including completing a couple of projects from start to finish.

“It was important to achieve all the standards set out by Lend Lease and Hunter Water on the projects,” Michael said. “This includes safety, which is paramount to Geosurv on all sites.”

Geosurv worked on the Boulder Bay Wastewater Treatment Works, Farley Wastewater Treatment Works, Toronto Wastewater Treatment Works, Branxton Wastewater Treatment Works, Shortland Wastewater Treatment Works, Paxton Wastewater Treatment Works and Burwood Beach Wastewater Treatment Works.

“On all these jobs we had full time surveyors. All of our surveyors have five-plus years’ experience and all are either TAFE or University graduates,” Michael said.

“Quality of work and looking after our clients is important, as is making sure everything on a project is running effectively and on time.”

The company employs more than 30 staff, ranging from directors to registered surveyors to engineers, senior drafters and project surveyors. Geosurv is also ISO 9001 accredited.

Geosurv has just completed work on the Adelaide Oval for Lend Lease and is currently working on the new Australian Federal Police forensic facility for Cockram Constructions, a Defence Housing Australia development for Grindley Constructions and a project at the University of Newcastle for John Holland.



For more information contact Michael Croft, PO Box R1670, Royal Exchange NSW 1225, phone 1300 554 675, fax: 1300 859 564, email info@geosurv.com.au, website www.geosurv.com.au

Opposite Top: Front (L-R) – Peter Groch, Tony Caristo
2nd row (L-R) – Manu Khatibi, Eric Crooke, Jason Hagarty
3rd row (L-R) – Brian Sestito, Elena Zaballero, Sajith Chathoth
Back row – Javier Flores-Nakashima



WORLD-CLASS TECHNOLOGY DELIVERS UNIQUE SOLUTION

It's a logical fit that RPC Technologies should be involved in the very significant works being carried out under the Hunter Treatment Alliance (HTA) banner.

As Australasia's leading manufacturer of engineered composite materials, RPC has been supplying GRP (Glass Reinforced Plastic) composite products for over 40 years.

During this time, RPC has successfully utilised the world's best composite technologies to deliver tailored project solutions to a diverse range of sectors including Defence, Infrastructure, Environment, Pipe Systems, Resources, Energy, Transport, Water and Waste Water Treatment.

As part of the HTA, RPC's Infrastructure and Environment business was awarded a total of seven contracts, with a total value approaching \$3 million. The contracts were spread across a number of Waste Water Treatment Plants with two contracts each for Boulder Bay and Burwood Beach, and one each for Shortland, Branxton and Toronto. The first contract was awarded in May 2010 and as a result of the projects, RPC increased the workforce at its local Broadmeadow facility.

At the Toronto, Shortland and Branxton plants, RPC was contracted to produce odour control covers and ducting using corrosion resistant GRP. A critical success factor in producing the flat odour control covers was RPC's early engagement. Having the design and engineering completed quickly, meant that the installation of the cover support beams could be incorporated into the civil works. This was an important efficiency and timing factor, which allowed the civil contractor to install the concrete beams in advance.

At the Burwood Beach Water Treatment Plant, the experience of the RPC designers and engineers came into its own. Here the company was charged with the responsibility of providing a replacement circular tank cover for the ABF (Activated Bio-Filter) Tower. This required the manufacture of a tailor-made, self-supporting segmented

GRP cover with a 30 metre diameter, this very large cover was designed and produced in 45 'pie slice' segments. The segments were assembled at ground level and lifted into place with a 400 tonne crane. This method effectively reduced the OHS risks of tradesmen to working at significant heights and when completed the cover was lifted into its final position as a sub-assembly.

The unique challenge for RPC was to produce such a large cover that was also self-supporting. RPC Sydney and Broadmeadow engineers worked closely with Abigroup and CH2M Hill to find a workable design solution, before the cover was manufactured at RPC's Batam Island manufacturing facility in Indonesia.

The project management, installation support and construction teams were supplied by the RPC Broadmeadow office in Newcastle.

The pie segments were manufactured at RPC's fully-owned facility at Batam Island in Indonesia. This state-of-the-art facility is recognised for the supply of high quality filament wound pipes and hand lay up GRP covers. It has been quality accredited since 1996 and employs a number of Australians, including the Plant Manager Darren Bishop an ex-Broadmeadow employee and Newcastle local.

RPC are widely recognised for their unique ability to blend innovative technology with advanced composite materials, complemented by a willingness to work closely with each client to find the optimum solution. Their professional engineering, on time delivery and the quality of their execution, are all a tribute to the commitment of their workforce which is in excess of 500 people across 3 countries.

RPC congratulate Abigroup and CH2M HILL on the successful completion of the HTA and look forward to future collaboration.

For more information contact RPC Technologies Pty Ltd, 24 Powers Road, Seven Hills, 2147 NSW, phone 02 9624 9800, email infrastructure@rpctechnologies.com, website www.rpctechnologies.com

GROWING THROUGH INNOVATION

When the Hunter Treatment Alliance (HTA) set about upgrading a number of plants in the Hunter region, they called on the services of one of Australia's largest vegetation management companies.

Active Tree Services has a mobile Australia-wide workforce of over 600 people and an annual revenue of over \$100 million. In addition, they have the scale, expertise and technological capability to operate in both urban and rural environments.

For the regional HTA project, the company was engaged by Abigroup to help facilitate the upgrade of the water treatment plants at Merewether and Branxton. The two very different jobs were a testament to the fact that no job is too big or too small for this team of professionals.

The smaller job at the Merewether site, involved the removal of trees and vegetation along a roadway leading into the plant to provide a better line of sight. Further vegetation was removed from around the plant to improve access for the construction teams to come.

In contrast, the task at the Branxton Waste Water Treatment Works required the skills of a specialist team of arborists. Charged with the delicate and high risk job of removing 40 very large Flooded gum trees, an experienced team of ten people was put together. The job required the services of three climbing arborists, two large truck and chipper combinations and a two 30 tonne cranes.

The trees were located near significant infrastructure assets, so they couldn't be clear felled and because of their size they had to instead be carefully dismantled over several days. Active Tree Services used their expertise to remove the trees in a safe and incident free manner, making way for the further expansion of the plant.

While water utilities can present particular challenges for vegetation management, Active Tree Services can draw on over 35 years of experience to provide clients with safe, reliable and cost-effective solutions. Today the company continues to drive innovation in the industry, while servicing the needs of local councils,

power utilities, road and rail authorities, civil contractors, community organisations and asset managers. Plus with branches across Australia they have a thorough understanding of local issues and environmental factors, as well as individual customer needs.

The combination of highly trained staff and an extensive fleet of specialist equipment located in every state, has seen the company become a serious player in the civil sector which is a rapidly growing area for the business. The company is also a leading player in both the commercial and construction industries.

Over recent years the company has invested heavily in plant and equipment that is compliant to current NSW civil specifications, including cranes, excavators and specialised forestry equipment. This, along with the company's reputation for meeting best work practices, has seen Active Tree Services become a preferred supplier to councils, utilities and energy authorities around the country.

In addition to providing one-off services, the company conducts ongoing cyclic vegetation management and they can also provide a rapid response to emergency situations, such as natural disasters.

Active Tree Services is currently working on a number of high profile projects, including Sydney's M2 upgrade and M5 west widening project. They are heavily involved in the South West Rail Link project and the inner west light rail, for the John Holland Group, which will extend from Lilyfield to Dulwich Hill. The company has also started early works on the North West Rail Link for Boulderstone and will be tendering for the major works.



For more information contact Active Tree Services, 77 Bassett Street Mona Vale NSW, phone 02 9997 4422, fax 02 9997 6788, email enquiries@activetreeservices.com.au, website www.activetreeservices.com.au



CUTTING EDGE MONITORING AND TECHNOLOGY

The Hunter Treatment Alliance upgrades incorporate state-of-the-art water monitoring and control solutions supplied by Royce Water Technologies. When embarking on this major regional water infrastructure project, the Hunter Treatment Alliance (HTA) was looking for long-term partners that are also leaders in their field. As a privately owned and independent company, Royce Water Technologies (RWT) fitted the bill perfectly.

For almost 10 years, RWT has been a highly respected local and global supplier of high quality monitoring and control instrumentation and sensors specifically designed for a diverse range of applications. In particular, RWT are known for supplying water and wastewater technologies including Online Analytical Instrumentation to accurately measure parameters in water and wastewater, and Sonication of wastewater sludge to improve the denitrification process in wastewater plants.

As part of the Hunter upgrades, the company was engaged to supply specialised equipment for the waste water treatment plants at Burwood Beach, Branxton, Paxton, Boulder Bay, Farley and Toronto. The relationship between the HTA and RWT goes back five years, when HTA conducted their own tests with RWT equipment at their Toronto plant. Exhaustive investigations determined that RWT offered the most accurate and reliable systems for

the project, leading to their equipment being specified for a number of the plants.

For the HTA needs, RWT supplied and commissioned Online Dissolved Oxygen Analysers and Online Nutrient Analysers. This essential equipment tests the microbiology of the water to ensure optimum operation and to ensure that the water meets critical standards before it is discharged from the plants. The main components that are measured include ammonia, Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), nitrate, chlorine, ortho-phosphate and turbidity.

With very accurate sensors, the RWT systems monitor and control these components to exacting standards. In fact, the company worked in collaboration with HTA engineers to trial their systems for up to nine months before delivering a tailored solution. The end products supplied by RWT were carefully selected to provide reliable and accurate operation, while at the same time reducing on-going operating costs and minimising maintenance. RWT has also been contracted to supply ongoing maintenance and support to these plants in the years to come.

Over the years, RWT has nurtured strong partnerships with specialist companies overseas, in the USA, United Kingdom and Germany, working closely with them to offer local organisations access to the very latest cutting edge technology from around the world.

For example, RWT has recently introduced into the Australian marketplace revolutionary 2nd Generation ATP Testing. These test kits, which are exclusive to RWT in Australia, provide critical information on the total living microbiology in a plant's process, collection and distribution system that is rapid, accurate, complete and quantitative. The ability to measure this information in only a few minutes allows users to save valuable time, help better manage risk and reduce operational costs.

With RWT's Online Analytical Instruments being used by almost 100 water and wastewater plants in NSW alone, the company is currently involved in minor as well as major upgrade projects. They are also involved in a Sonication Pilot Plant project at Maroochydore in Queensland. Plus they are working with a number of wastewater plants that are already using the 2nd Generation ATP Technology to help reduce their energy consumption.

While their head office is located in Brisbane, RWT service the entire country via offices in Sydney and Melbourne, and distributors in West Australia, South Australia and Tasmania.

For more information contact Royce Water Technologies, PO Box 377, Narrabeen, NSW 2101, phone 0408 079 073, email tim.curtis@roycewater.com.au, website www.roycewater.com.au





FINDING THE RIGHT CHEMICAL STORAGE SOLUTION

While water treatment plants and water storage tanks go hand in hand, it's clear that not all tanks are created equal. Just ask the experts at Chemstore. This family owned, proudly Australian company has been producing a diverse range of premium quality storage tanks for over 40 years.

Today Chemstore specialises in manufacturing fibreglass reinforced plastic (FRP) tanks, FRP underground tanks, FRP pipe and ducting, fusion bonded epoxy steel panel tanks and glass fused steel panel tanks.

As a supplier to Hunter Water for over 25 years, Chemstore has worked with the organisation from their Sydney, and more recently, their Parkes office.

As part of the Hunter Treatment Alliance (HTA), Chemstore were engaged to engineer, manufacture and deliver a range of different sized FRP chemical storage tanks. The tanks were commissioned for the Branxton, Mayfield and Shortland plants, as part of the overall infrastructure upgrades, to store a variety of chemicals used in the water treatment process.

Each tank was carefully tailor-made for its specific use with the company's engineers and tank specialists working together to expertly select the resin composite materials used in the manufacture of each tank. This process is essential to align the material used, to the specific chemical being held in each tank. The wide range of chemicals being stored include, among others, Sodium Hypochlorite, Aqueous Ammonia and Caustic Soda.

Customised resin selection, individually engineered vessel design and in-house drafting services are just some of the unique benefits of a Chemstore manufactured FRP tank.

In total, Chemstore supplied over ten tanks to the HTA ranging in size from 2 kilolitres to 30 kilolitres. The design process was a collaborative effort involving Chemstore's in-house composite engineers and engineers from the Abigroup, to ensure the tanks met the project's very exacting requirements.

Once the specifications were agreed upon, Chemstore set about producing the tanks at their state-of-the-art facility. The Parkes factory includes over 6000m² of manufacturing area, a complete testing facility and some of the world's best technology and equipment.

The tanks for the HTA were produced using a chop hoop filament wound process. This combination of high hoop strength provided by filament winding and the multi directional strength of chopped strand laminate, results in superior lateral strength, highly robust and superior products.

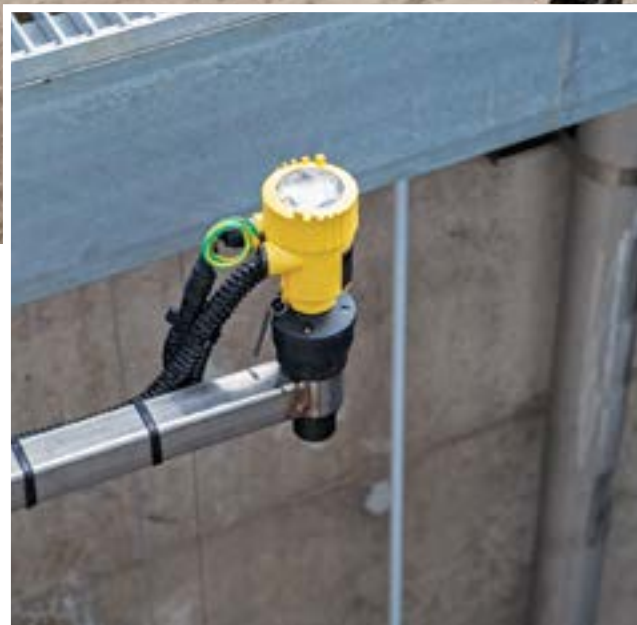
Once completed the tanks were put through their paces by professionals at Chemstore's full scope testing facility. The company is fully committed to updating, maintaining and improving their Quality Management activities to enhance the performance and life span of all products.

Every product has a full quality check, signed off by their Quality Management team in accordance with a strict Quality Management System Accredited to ISO9001:2008. In addition, all tanks manufactured by Chemstore are fully designed in accordance with Australian, British or American standards.

The company has been involved in the HTA project for some 18 months, producing each tank to meet the very precise project deadlines and to ensure the work on site could continue on schedule. Once the tanks were manufactured in Parkes, a specialist Chemstore team supervised the safe transport and delivery to each site.

The company takes great pride in all of its work and was very proud to be involved with such a high profile project for the Hunter region. At present Chemstore is currently working on a number of other projects for APLNG, QGC Northern Water Treatment Plant, Ulan Coal and the Rio Tinto Yandi Sustainable Project.

For more information contact Chemstore Group, 19-21 Clarke Street, Parkes, NSW 2870, phone 02 6862 4866 or 1300 139 971, fax 02 6863 5766, email sales@chemstoregroup.com.au, website www.chemstoregroup.com.au



FINDING REAL SOLUTIONS

Family owned and operated, engineering business **Brent & Warburton** has been operating in Newcastle and the Hunter for over 100 years.

General manager Darcy Currey said it was the company's strong focus on customer service that saw the team continue to work with many customers for decades.

"We have been involved with some major companies such as Hunter Water since the beginning of our operation and pride ourselves on continuing to maintain this valuable business relationship," he said.

"Brent & Warburton were originally located in Newcastle's CBD followed by Broadmeadow.

"Our current location in Tomago is well located between the Pacific Highway and Newcastle Airport and provides convenient access to the whole of the Newcastle and Hunter Region. "Steady growth over many years has required that we move to larger workshops with more capabilities and we now boast six over head cranes, seven CNC lathes, five CNC mills as well as many manual machines, fabrication and fitting facilities and onsite fitting capabilities.

"Our company specialises in providing fast turn around manufacturing, fitting and fabrication services through our 35 experienced and knowledgeable staff members."

Being a part of the company's fourth generation of management, Darcy understands the importance of providing versatility and up to date quality assistance through its manufacturing and fitting services to businesses in the surrounding region as well as further afield.

Brent & Warburton's manufacturing services include turning, milling and boring. Working mostly with metals from a pocket sized work piece up to two metres by 10 metres the CNC and manual machines provide the flexibility to meet clients' needs.

For the Hunter Water Treatment Project the company specialises in fitting services, removing, repairing, and reinstalling water and sewage pumps and other water treatment equipment. With machining and fabrication facilities, almost all repair and overhaul work is performed at our workshop.

"We are all about finding real solutions for our clients and our extensive history shows that we have been showing our exceptional skills for many years and look forward to continuing this tradition into the future."

For more information contact Brent & Warburton, 5 McIntyre Rd, Tomago, NSW 2322, phone 02 4964 8600, email sales@brentandwarburton.com.au, website www.brentandwarburton.com.au

A LEVEL ABOVE THE REST

"All of our clients know that at VEGA Australia we have the backing of over 54 years of experience from the world leading supplier of level, pressure and density instrumentation and for the past 26 years have been active in the Australian market and have grown from strength to strength", said Tony Scarborough, NSW Business Development Manager.

VEGA has a global presence with offices also located across Europe, North & South America, Africa, and Asia and always has the one basic objective that is, to set the standard and remain a technology

leader through continued development and innovation guaranteeing high performance even under difficult process conditions but most importantly reducing ongoing costs.

On the Hunter Water Project VEGA showcased various sensor technologies for continuous level and pressure measurement including: ultrasonic; radar; hydrostatic and; pressure with their patented 'CERTEC' ceramic capacitive measurement cell used on applications such as inlet & outlet channel flume flow, as well as chemical storage tank, pumping station wet well, settling pond and aeration tank levels.

Its projects such as these that allow VEGA to not only demonstrate best in class technology but to also better understand the needs of an ever changing market.

"We continue to be an integral part of many water and wastewater projects and plants throughout Australia because our sensors work both accurately and reliably in many difficult and challenging environments. Our ability and success is also seen in industries such as mining, bulk handling, power generation, petrochemical, chemical and food & beverage", says Tony.

For more information contact VEGA Australia Pty Ltd, 398 The Boulevard, Kirrawee 2232, phone 02 9542 6662, fax 02 95426665 website www.vega.com.au



A NAME SYNONYMOUS WITH HUNTER WATER

Perfab Engineering has used their multi-disciplined approach to complete countless projects for Hunter Water.

Since 1989, Perfab Engineering has been the first choice of many high profile businesses in both the Newcastle region, and right across the country. The company's business covers three main areas - stainless steel fabrication, carbon steel fabrication and field services.

For over 20 years they have forged a strong relationship with Hunter Water, while demonstrating their expertise in design, manufacture, installation, maintenance and project management. During this time they have provided premium products and services to assist Hunter Water with the ongoing maintenance of their existing infrastructure.

As part of the Hunter Treatment Alliance the company was contracted to complete stainless steel pipe work fabrication and to provide a range of aluminum platforms, walkways, stairs and handrails. This large project began some three years ago, with Perfab providing their products progressively as the Burwood Beach, Boulder Bay, Shortland and Farley water treatment plants were upgraded.

Tailor made for each installation at their Tomago manufacturing facilities, all of the products were carefully designed to deliver optimum, long-term performance and to help increase the capacity of the treatment plants.

Drawing on their many years of experience, the diverse and multi skilled Perfab team are committed to working with customers to plan, design and produce the highest quality workmanship. All while meeting the most rigorous Australian and International quality standards.

While Perfab is one of the largest stainless steel fabricators in Newcastle, they regularly receive repeat business from all over Australia including the Pilbara region, Kalgoorlie and the Northern Territory.

Perfab are currently working on a number of large projects including the Apling Origin project in Queensland, stainless steel tanks for Ulan Coal and Orica's Kooragang Island facility.

For more information contact Perfab Engineering, 18 Martin Drive, Tomago, NSW 2322, phone 02 4964 0500, fax 02 4964 8410, email admin@perfab.com.au, website www.perfab.com.au

GROUP PROVIDES SOLUTIONS TO KEEP CUSTOMERS MOVING FORWARD

Trivantage is a national provider of comprehensive and innovative electrical and specialist low and medium voltage solutions. With a truly national network, decades of experience and a superior team of people, this is a company that has the power to perform.

Trivantage's specialist teams operate in every state, offering a diverse range of services to an expanding number of business sectors. This can be seen clearly through the New South Wales operated division SJ Electric Group. SJ Electric Group senior manager –water Chris Holmes said with all divisions of Trivantage, the group was all about people, professionalism, products, project management and performance.

"This clearly adds up to reliability and satisfied clients and given the magnitude of many of our projects this is vital," he said. "On projects such as the Hunter Water Treatment Project, SJ Electric Group brought together the expertise of some of Australia's most experienced and respected electrical specialists to manufacture and install the motor control centres and electric panels."

"This project allowed us to provide quality electrical and control solutions for the water industry which is something that we have the experience and knowledge to do well."

"On projects such as this you are dealing with a valuable and essential service and plants that need to operate reliably and sustainably well

into the future so there is no room for error and this is where the over 40 years experience of the SJ Electric Group comes in."

SJ Electric Group has worked on a number of other significant projects in New South Wales including the State Water Dam Upgrade, Mount Arthur Coal, Wallerawang and Shoalhaven WWTP.

"These projects highlight the adaptability of our team that they are able to work on such a wide range of undertakings."

With particular expertise in commercial and industrial environments, electrical engineering, contracting and switchboard manufacturing, SJ Electric Group understands how critical electrical and control services are to continuity of business trading and productivity.

"We respond with well-engineered solutions and timely service that keep the doors open, processes in-train and systems online."



For more information contact SJ Electric Group NSW, 14A Lidco Street, Arndell Park, NSW 2148, phone 02 9672 0400





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KEEPING THE WORK FLOWING

After 25 years in the business, there's not much that PJS Plumbing can't handle. As professional plumbers and gasfitters, the company is experienced in working on commercial and industrial construction projects, along with small to medium civil works within the Newcastle region.

As part of the Hunter Treatment Alliance, PJS Plumbing was responsible for setting up temporary compounds at a number of the water treatment plants. This involved supplying tanks and other infrastructure, to bypass the permanent plants that were being upgraded. As a result, the renovation work could be undertaken without any disruption to the region's water supply.

The highly qualified team has a reputation for finding solutions to even the most challenging circumstances and as licensed plumbers they can offer customers a complete solution. Other projects the company is involved in include Eraring Power Station, Cardiff Railway Station and the connection of services to the Newcastle Water trunk main.



For more information contact
PJS Plumbing, 24 Newton St,
Broadmeadow NSW 2292, phone
02 4957 0203, fax 02 4952 1634,
email admin@pjsplumbing.com.au

AUSTRALIAN NATIONAL CONSTRUCTION REVIEW

PERSONALISED PUMP SOLUTIONS

When the Hunter Treatment Alliance needed to source pumps for significant upgrades to the Boulder Bay and Farley Waste Water Treatment Works, they turned to a tried and trusted supplier.

For 60 years Pomona Pumps have been in the business of designing and manufacturing a diverse range of both standard and tailor-made pump solutions. This proudly Australian owned company, is committed to delivering the best possible pumping solution for each very individual application. The result is a professional solution guaranteeing that each pump is correctly engineered for optimum, long-lasting performance.

The effluent pumps required for the Boulder Bay and Farley upgrades were designed and manufactured in the company's state-of-the-art Melbourne factory to their engineer's exacting standards. Here Pomona Pumps also has a fully endorsed pump test facility that ensures every pump produced meets with quoted duties.

While the company stocks a small range of standard pumps, their expertise lies in using their vast knowledge to produce pumps that are built to suit the installation. Pomona Pumps have carved a niche for themselves supplying pumps for both standard and complex installations located right around Australia.

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Being a small company, Pomona Pumps pride themselves on knowing every job intimately, so they can provide a unique level of post-installation service. Plus with all of the pumps manufactured locally, they can facilitate repairs and supply spare parts quickly. This back up service, is complemented by the company's team of skilled professionals who can see the job right through to installation. The company's flexibility also means that pumps can be delivered fully assembled, so they can simply be dropped into place.

With their commitment to delivering sound advice, quality workmanship and innovative solutions, Pomona Pumps have a loyal list of repeat clients who can testify to the company's philosophy to be there for the long run.

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