



OVERVIEW OF ABCO WATER SYSTEMS



ABCO Water Systems

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EC11076



EXECUTIVE SUMMARY

Andrew Brown & Co Pty Ltd (ABCO) was established in 1997 and has grown to be one of the largest privately owned water and wastewater treatment specialists in Australia.

With over 20 years of experience, the ABCO Group has a wide and diverse range of clients, both in Australia and abroad, including; Ghana, Senegal, Tanzania, Burma, Singapore, East Timor, Indonesia, Papua New Guinea, Nauru and New Caledonia.

Our company's culture can be best summed up in the company's key operating objectives.

These are as follows:

- Ensuring our organisational structure contains the dynamics required to keep it in the forefront of modern project delivery methods
- Provide collaborative expertise to all projects with the wealth and depth of experience the company has gained
- Meet or exceed our client's specified benchmarks using a certified and fully auditable QA system.

Provide our clients with an end product that is value for money by ensuring that projects are delivered within budget and by providing ongoing value engineering.

- Delivery of our client's projects in a timely manner.
- Provide our clients with ongoing risk management to minimise exposure.
- Provide a safe environment on our projects that are fully auditable against industry standards.
- Ensure that our work practices are both environmentally sound and sustainable.
- Manage project industrial relations to ensure that all risk of time and cost overruns are minimised.
- Ensure that our staff are fully trained and apprised of changing industry practices and techniques.

Today, ABCO Water Systems wide range of operations includes design, manufacturing, construction, installation, commissioning, operation, servicing of the following:

- Water supply pumping and sterilization treatment plants
- Reverse Osmosis (RO) water purification
- Ultra-Filtration (UF) water filtration
- Equipping of water bores and pipelines
- Equipping rivers, lakes and other water sources
- All forms and size of water tanks, galvanized steel, fiberglass, polypropylene up to 2 ML capacity
- Fire water tanks
- Fire pumping systems to AS 2914 and AS 2419
- Wastewater treatment plants, RBC, AS, IDEA, SBR and Trickle Filter.
- All pumping stations including sewerage and water transfer
- Vacuum Sewerage Systems
- Pressure Sewerage Systems
- Effluent disposal
- Sludge handling, sludge thickening and sludge drying (Sludge Geo Bags)
- Oily water separation
- Acid Mine Drainage

Overview of ABCO Water Systems

ABCO Water Systems pride themselves on intelligent design, short delivery times and effective delivery service of all products. We have the staff and management systems in place to ensure the success of your projects. Our systems are designed and manufactured by our in-house team of experts, including all electrical and control systems. This allows our clients direct access to design engineers and the manufacturing team. The engineering and manufacturing team comprises qualified engineers with design, mechanical, environmental, systems, electrical, chemical and process disciplines; experienced project managers responsible for ensuring each project passes through a safe, planned process to completion; a skilled trades team; mobile service technicians; who work together to ensuring all project timelines are adhered to.

The last five years has seen significant development in the company's capability and capacity. Our capacity to self-perform the majority of the scope enables us to optimise the project cost, quality and schedule ensuring we deliver the best possible ONTIME outcome to our clients.

With over 10 employees, a large inventory of owned plant and equipment, a history of continuous profitable operation, ABCO Water Systems have the resources and ability to drive sustainable growth in our target market.



Recently Installed 1000kL Storage Tank



105kL Water Storage and Pump Room



1400EP Waste Water Treatment Plant in Nauru

The full system was transported in the one 20 foot sea container saving on shipping costs



Vacuum Collection & RBC Waste Water Treatment Plant (RWQMP Compliant) Complete with Cyclone rated Building housing the Control room and equipment

PROJECT HISTORY

Year	Client	Site Details	Project Details	Contract Value	Contact	Contact Position	Telephone
2018	Strata Plan No.52051	Yallingup, WA	Installation of 2 x RBC WWTP	\$1,100,000	Gareth Thomas	Chief Operations Officer	08 9205 6011
	FQM Australia Nickel	Ravensthorpe, WA	New tank and liner Existing WWTP	\$71,000.00	Chad Francis	Maintenance Supervisor	08 8983 2102
	Australian Nickel Investments	Cosmos Nickel Complex	Upgrade of WWTP	\$157,000.00	Peter Cullinan	Manager	08 9334 7718
	Newmont Tanami	Tanami Desert, NT	Replacement of two water Liner	\$46,097.00	John Lucas	DBS Fixed Plant Maintenance Planner	08 8993 8264
	CITIC Pacific Mining	Cape Preston, WA	Replacement water Liner	\$30,728.00	Andrea Rujic	Maintenance Planner	08 9178 3423
	ENI Australia Ltd	Wadeye, NT	Replacement of Potable water Liner	\$37,892.00	Josh Harrison (UPS)	WA/NT Field Operations Manager	08 6109 4000
	CITIC Pacific Mining	Cape Preston, WA	Install of a 378kl water tank	\$90,000.00	Chris Davies	Superintendent Mine	08 9178 3288

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						Maintenance Services	
	Shire of Gingin	Guilderton Caravan Park, WA	Upgrade existing WWTP	\$38,000.00	Bob Kelly	Senior EHO	08 9575 2211
2017	Oregon Nominees	Mt Magnet, WA	Install of Replacement WWTP	\$168,000.00	Mike Burrows	Owner	08 9581 9217
	FQM Australia Nickel	Ravensthorpe, WA	Upgrade of Existing WWTP	\$130,000.00	Jason Pugh	Superintendent, Maintenance Services	08 9838 2106
	Citic Pacific Mining	Cape Preston, WA	Relocation of 330kl water tank	\$39,000.00	Rennie Gordon	Superintendent Mine and Maintenance	08 9178 3288
	Australian Nickel Investments	Cosmos Nickel Project, WA	Rental of Trickle Filter WWTP	\$48,030.00	Peter Cullinan	Registered Manager Cosmos	08 9334 7718
2016	Kimberley Port Authority	Broome Port, Broome, WA	Vacuum Sewage and RBC WWTP	\$1,010,000	Peter Collins	Project Engineer	08 9194 3100
	Yarra Pilbara Fertilisers Pty Ltd	Karratha, WA	RBC WWTP	\$350,000.00	Jens Dickmeis	Process Engineer	08 9183 4050
	Australian Government Dept. of Defence	Laura, North QLD	Rental of Trickle Filter WWTP	\$154,108.00	Luke Ebnetter		
	Citic Pacific Mining	Cape Preston, WA	Rental of 225kl RO Plant	\$90,000.00	Robert Clifton	Manager Operations Support	08 9178 3589
2015	Newmont Tanami	Tanami Desert, NT	Replacement 2 tank liner to WWTP Tank	\$37,440.00	Brian Wehrs	Maintenance	
	Newmont Tanami	Tanami Desert, NT	Supply & Install Pump Station	\$20,600.00	Jason Gray	Contracts Administrator	08 9423 6419
	APH Contracting	Millbridge Estate, Australind, WA	Vacuum collection chambers – Valve installation	Exceeding \$80,000	Dwayne Day	Site Supervisor	08 9725 4755
	Leighton Contractors	Elizabeth Quays, WA	Vacuum sewage pumping station	\$220,000.00	Patrick McInerney	Package Manager	08 6436 6563
	RSA Consulting Engineers	Perth Vineyard Caravan Park, WA	400EP Upgrade sewage pump station	\$17,300.00	Alistair Arian	Engineering Manager	08 9317 3331
	API Management Pty Ltd	Mining Camp, WA	Water Treatment Unit – UV Sterilisation	\$2,546.00	Brian Myles	Camp Construction Superintendent	08 9423 0222
	Newmont Tanami	Tanami Desert, NT	Supply and Installation 1000kL	\$161,189.00	Gary Duignan	Project Supervisor	08 8993 8617

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			Ground Water Tank				
	Newmont Tanami	Tanami Desert, NT	Replacement tank liner to 400kL Tank	\$35,000.00	Don Firth	Supervisor	08 9423 63212
	Great Southern Nickel	Norseman, WA	25EP Wastewater Treatment Plant (Supply only)	\$41,700.00	Cameron Tuffley	Field Manager	04199 777 355
	Citic Pacific Mining	Cape Preston, WA	330kL Ground Water Tank	\$80,790.00	Des Thompson	Superintendent Mine and Maintenance Services	08 9178 3388
2014	RSA Consulting Engineers	Porthedland, WA	100EP RO, Water and Wastewater Treatment Plant	\$552,370.00	Brendan Scott	General Manager	08 9317 3331
	Nemjon Plumbing and Drainage	Samsung Camp, Roy Hill Project, WA	Rental – RO, Water and Wastewater Treatment Plant	\$376,170.00	Leigh Roberts	Water Services Supervisor	08 9407 9899
	Citic Pacific Mining	Cape Preston, WA	Replacement of Tank Liner	\$42,000.00	Rennie Gordon	Superintendent Mine and Maintenance Services	08 9178 3288
	Burrows & Charlton	Tammin Roadhouse, WA	Leach drains for 6kL per day	\$37,288.00	Mike Burrows	Owner	08 9581 9217
	Citic Pacific Mining	Cape Preston, WA	Downgrade to existing WWTP	\$26,750.00	Luke Barber	Water Technician (Facilities Management)	08 9178 3480
2013	Trepang Pty Ltd	Darwin Detention Centre, NT	500EP Upgrade at Detention Centre WWTP (Stage 3)	Exceeding \$1,000,000	Reid Robinson	Director	08 8931 6868
	Auzcorp Corporation	Mia Mia Camp, Port Hedland, WA	Sewage pump stations and new sewage ponds	\$124,640.00	Paul Eaglesome	Camp Manager	0438 615 787
	Auzcorp Corporation	Mia Mia Camp, Port Hedland, WA	New camp water pump system in cabinet	\$21,950.00	Paul Eaglesome	Camp Manager	0438 615 787
	Pindan Rio Tinto Iron	Wildflower Camp, WA	Equip water bore with pump and lay flat hose	\$52,943.00	I Gillespie	Project Engineer	08 6274 7358

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	RSA Consulting Engineers	Mia Mia Camp, Port Hedland, WA	Stormwater collection and pumping system	\$129,855.00	Joe Comisso	Project Engineer	08 9317 3331
	Fortescue Metal Group	Porthedland, WA	1 x 180kL RO Plants (Rental Project)	\$419,440.00	Sam Bennett	Project Engineer	08 6218 8888
	Fortescue Metal Group	Porthedland, WA	750 EP Camp – Water and Wastewater Treatment	\$829,460.00	Sam Bennett	Project Engineer	08 6218 8888
	Fortescue Metal Group	Porthedland, WA	Removal of effluent off site for extended period of time	\$481,400.00	Sam Bennett	Project Engineer	08 6218 8888
	Ngaanyatjarra Services	Tjirrkali Community, WA	105kL Water Storage	\$217,783.00	Mark McGill	Essential Services	08 9363 1805
	Citic Pacific Mining	Cape Preston, WA	220kL Steel Water Storage Tank	\$47,610.00	Des Thompson	Supervisor Mine & Maintenance Services	08 9178 3388



AUSTRALIAN NICKEL
INVESTMENTS PTY LTD

TECHNICAL CAPABILITY

ABCO Group's diverse range of capabilities includes the Design, Construction, Installation, Operation, Servicing and Rental of water and wastewater treatment solutions. ABCO Water Systems pride themselves in the intelligent design, short delivery times and effective delivery service of all products. All products and components are warranted for 12 months with a 24 hour telephone and email support service for emergency contact.

Our systems are designed and manufactured by our in-house team of experts, including all electrical and control systems. This allows our clients direct access to design engineers and the manufacturing team. The engineering and manufacturing team comprises qualified engineers with design, mechanical, environmental, systems, electrical, plumbing, chemical and process disciplines; experienced project managers responsible for ensuring each project passes through a safe, planned process to completion; a skilled trades team; mobile service technicians; who work together to ensuring all project timelines are adhered too. ABCO Water Systems deliver projects from design to commission, on time, on budget and safely. We typically manage between 10-20 custom projects per year.

Design and Engineering	<ul style="list-style-type: none"> All in house
Civil works	<ul style="list-style-type: none"> Both in house and by sub-contractors
Water bores	<ul style="list-style-type: none"> Drilling by sub-contractors
	<ul style="list-style-type: none"> Bore pumps and rising shafts to ground level
	<ul style="list-style-type: none"> All head works, monitoring, and telemetry
	<ul style="list-style-type: none"> Control panels and electrical requirements
	<ul style="list-style-type: none"> All rising mains, air relief and auto pump control
Water tanks	<ul style="list-style-type: none"> Manufacture all tanks including bolted steel 50kL to 2,000kL
	<ul style="list-style-type: none"> Fibreglass tanks suitable for ground installation or on end offering an elevated tank option without a stand. All fully engineer certified, 3.4m in diameter and up to 19m in length
	<ul style="list-style-type: none"> Replacement of Tank liners, adaption of a fixing system that removes the need to remove the roof to complete.
Water Supply	<ul style="list-style-type: none"> Including Ultra filtration, Reverse Osmosis, Electrode ionization, Chlorine / UV sterilization and pumping units
Sewage Pump Station	<ul style="list-style-type: none"> Fully assembled off site if required. Either 1100mm diameter or 1800mm diameter fibreglass moulds available. No depth restrictions.
Wastewater Treatment	<ul style="list-style-type: none"> All package systems available SAF (Submerged Aerated Filter), SBR (Sequencing Batch Reactor), RBC (Rotating Biological Contactor) and Trickle Filters.
Sewer Ponds	<ul style="list-style-type: none"> All design and construction provided
Sludge removal	<ul style="list-style-type: none"> ABCO Water Systems are equipped with a truck mounted sludge dewatering unit. This unit reduces volume removed off site to thickened sludge only
Electrical Department	<ul style="list-style-type: none"> Design, manufacture and install custom control panels, inclusive of PLC, HMI and telemetry
Fire Protection	<ul style="list-style-type: none"> Fully compliant fire protection water systems designed to suit project needs.
Service & Maintenance	<ul style="list-style-type: none"> Regular system servicing and maintenance available. Works undertaken by qualified and experienced service technicians.

PLANT AND EQUIPMENT

ABCO Water Systems has an extensive fleet of equipment that we own, maintain and operate. Our centralized Plant and Procurement department is located at the company's base in Kelmscott, and is responsible for managing the acquisition, maintenance, mobilization, demobilization and disposal of major plant and equipment and the procurement of goods for the business. Our plant department will establish the best combination of owned and hired plant for the purposes of the project.

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Project Resourcing Planning meetings are held on a weekly basis to support our business in planning for and allocating plant and equipment to current and anticipated projects.

A commitment to preventative maintenance allows repairs and maintenance to coincide with construction activities to minimise downtime and maximise productivity.

Owning the plant and equipment gives us the advantages of:

- Availability of equipment suitable for the task;
- Reliability of equipment through routine and preventative maintenance;
- Increased control of plant and operations;
- Reduced risk normally associated with large scale subcontracting; and
- Competitive plant rates.

All our plant is maintained and operated to OEM guidelines by our large team of experienced personnel. We ensure critical equipment components are stocked to ensure security of supply of plant i.e. spare parts for key items of plant are kept on hand.

MATERIALS

We actively manage our supply chain to ensure security of supply of key goods and materials for projects we undertake. From the pre-contracts phase through to the project close-out phase procurement officers work closely with estimating and project personnel to support the procurement of strategic or specialist items for our projects. The procurement team undertakes a number of key activities to support our operations:

- Early investigation of strategic items
- Test the market for availability of materials or plant
- Inspect plant and equipment for suitability to a project
- Educate external suppliers on the site specific requirements to ensure plant availability matches specifications for the site.
- Undertake early investigation of local suppliers to get a feel for the market and their commitment.
- Investigate local freight providers to understand their suitability to service our project requirements in terms of bulk airfreight, road freight, overnight freight and Air Express, with the aim of optimizing freight to the project.
- Identify critical component and goods that are have a long lead time or in scarce supply.
- Identify and brief suppliers on the requirements for long lead items.
- Negotiate strategic supplier agreements for any critical item / material.

CONTINGENCY MEASURES

ABCO Water Systems guarantee that we have the capacity to resource every project that we have tendered for.

ABCO Water Systems propose to carry out work under this contract without impacting other Company work in hand and we guarantee that we would manage other work to ensure that it does not impact on this contract.

With access to a skilled workforce coupled with strong engineering and project management teams we have absolute confidence in the capacity of our company to undertake the contract.

ABCO Water Systems own an extensive and diverse fleet of plant and equipment and as such control the availability and productivity of the fleet to ensure project needs are met.

Overview of ABCO Water Systems

Our extensive experience in scaling project teams up and down to meet changing project requirements or specific constraints is proof we can collaborate with our clients to achieve best for project outcomes. As a self-performing contractor, our personnel and plant can be readily mobilized by our HR and logistics teams respectively. Well-resourced in-house surveying, estimating, planning, IT and HSECQ teams provide our project teams with the right level of support to deliver on project requirements

Whether we are working our schedules around accommodation constraints, staging the execution of projects around design completion, or prioritizing resources to meet unidentified urgent requirements you can be assured we have the experience and resources to rapidly respond to the needs of this contract.

KEY PERSONNEL

Murray Brown
Managing Director

Murray has gained over 40 Years' experience in Engineering, Construction and Project Management to include Water Industry experience ranging from site management to company management. Murray's belief in transparency and accountability are fundamental to ABCO forming long-term relationships with clients. In addition to his commitment to providing a harmonious, safe and secure environment for team members has seen us enjoy low staff turnover.

Ron Levitt
Process Engineer
B App Science, G Dip ed

Ron has been employed as a consultant for ABCO Water Systems for the past seven years. Ron is heavily involved in project design. Ron also supervises testing and commissioning of installed treatment plants ensuring all systems are compliant with design parameters.

Kevin Roberts
Operations Manager / Senior Electrician (licensed contractor)

Kevin is a qualified electrician with over 20 years industry experience across a wide range of disciplines including power stations, renewable energy, building services and water infrastructure. He has extensive experience in design, construction, and project management. Kevin has a great practical approach to undertaking projects, planning and organising materials and labour, working with and encouraging younger and less experienced members of the team and teaching them how to safely operate equipment and machinery.

Alec Sharland
Senior Plumber (licensed contractor)

Alec is a qualified plumber with over 10 years' experience and has a vast knowledge of the water and waste water industry makes him a valued asset on any project. He is responsible for overseeing the day-to-day works on site with excellent communication skills with clients. Alec's role is to ensure project time-frames are met; quality workmanship, on-site safety, and most importantly to ensure the client needs are met.

Tony Van Der Mey
HSEQ Manager

Tony joined the ABCO team in 2007 as Quality Manager and was appointed to his current position of HSEQ Systems Manager in 2011. Tony is responsible for the development, implementation and ongoing maintenance of the ABCO Management System to ensure compliance with internal and external requirements such as Legislation, ABCO's Certification to ISO9001, ISO14001 and AS/NZS 4801, Client Standards and

Overview of ABCO Water Systems

Project Specifications. Tony's key duties include achieving a competitive advantage through the creation of industry best practice and value adding management systems.

QUALITY ASSURANCE

ABCO Water Systems has a well-established Health, Safety, Quality and Environmental Management system that support in delivering projects safely, to a high standard and without harm to the environment.

Senior management plays a major role in demonstrating leadership in all aspects of Health, Safety, Environment and Quality (HSEQ) to the workforce and instilling a positive working environment.

The table below highlights our incident report history.

	Date
Lost Time Injury	15/04/2012
Medically Treated Injury (Minor)	18/07/2012
Environmental Incident	31/10/2013

HSEQ ACCREDITATIONS

ABCO Water Systems hold the following third party accreditations, since July 2012:

- Health and Safety Management is accredited to AS/NZS 4801:2001
- Quality System is accredited ISO 9001:2015
- Environmental Management System is accredited to ISO 14001:2015. ABCO Water Systems partake in internal and third party audits to monitor compliance with all contractual obligations and legislation standards. Our aim is for continual improvement in all aspects of Safety, Health, Environmental and Quality Management Systems.

TRAINING

ABCO Water Systems recognize the importance of continued staff training. Additional training and further education is promoted and subsidized.

All site personnel are fully inducted.

As most of our contracts are in remote locations all external workers are fully trained not only for the scope of works but also to cover logistical operational aspects of working in changing weather conditions.

ENVIRONMENTAL

ABCO Water Systems acknowledge the sensitivity and importance of environmental.

All employees and contractors have a duty to act in an environmentally responsible manner.

An Environmental Impact Register is to be developed and maintained which is to define:-

- Activities to be undertaken.
- Environmental aspects of each activity.
- Potential impact to the environment of each aspect.
- Level of impact associated with each aspect.
- Any control measures required to manage and/or reduce the level of impact.

FINANCIAL STABILITY

Andrew Brown & Co Pty Ltd trading as ABCO Water Systems is privately owned.

ABCO Water Systems Pty Ltd is not acting as an agent for another party.

ABCO Water Systems Pty Ltd is not acting as a trustee of a trust.

ABCO Water Systems Pty Ltd is fully insured to include the following insurances; public liability, professional indemnity, motor vehicle, contracts works and workers compensation.

ABCO Water Systems is presently able to pay all our debts in full as and when they fall due.

ABCO Water Systems is not currently engaged in litigation as a result of which it may be liable for \$50,000 or more.

If ABCO Water Systems is awarded the Contract, it will be able to full fill the requirements from its own resources or from resources readily available to it and will remain able to pay all debts in full as and when they fall due.

FINANCIAL REFEREES

Bendigo Bank

6/837 South Western Highway, Byford WA 6122

Contact: Tony Greipl (Branch Manager) 08 9525 0879

Ebara Pumps Pty Ltd

7 Holloway Drive, Bayswater, Victoria 3153

ACCOUNTANTS

Maroo & Associates Chartered Accountants

Suite 5, 163 Main Street, Osborne Park, Western Australia 6017

Contact: Shannon Castensen (Principal) 08 9444 8323