

INFUSION

coffey  SPECIALIST KNOWLEDGE
EXTRAORDINARY OUTCOMES

50
YEARS
AN EXTRAORDINARY JOURNEY

**Contributing
to cultural life**

**BUSINESS
WARNED
TO ACT ON
ASBESTOS
BEFORE
NEW LAWS**

**More businesses
take the challenge**

Australia's **largest
construction** project



**SHARING THE
OIL & GAS CHALLENGES**





It is with pleasure that I welcome you to the latest edition of *Infusion*.

Coffey is celebrating its fiftieth anniversary and we are as passionate today about working with our clients to solve challenges and deliver smarter solutions as we were fifty years ago.

In this edition of *Infusion* we take a look at the specialist skills required to manage the development and delivery of cultural infrastructure, and the central role these structures take in creating vibrant spaces which encourage creativity and help strengthen communities.

Ensuring safe removal of asbestos is a worldwide issue and in Australia, upcoming legislation changes will enforce stricter controls over the management of this and other hazardous materials. In this edition you can read about where asbestos might be found and what to do if it's present in your work or living environment.

We also take a look at the growth of the oil and gas sector and the experience Coffey has helping clients to develop this vital resource worldwide.

Developing cities through urban renewal and improving residential, commercial and leisure facilities is a challenge for many countries around the world. In the Docklands precinct of Melbourne, Australia, Coffey is helping to turn a heavily industrialised site into a celebrated destination in one of the world's most liveable cities.

I was also pleased to see IBM take the Coffey International Award, part of the Business in the Community Awards for Excellence. IBM is helping to achieve the Millennium Development Goals with its innovative World Community Grid, and we strongly endorse and share the work companies and communities are doing around the world to achieve these goals.

I hope you enjoy reading this edition.

Roger Olds
Managing Director

MAKING

STIMULATING THE IRAQI ECONOMY & CREATING EMPLOYMENT

Coffey International Development has hosted a range of investment promotion events on behalf of the United Kingdom's Department for International Development and the National Investment Commission of Iraq.

The latest event, held in London in May this year, was attended by the Iraqi Prime Minister Nouri al-Maliki, key UK Government officials and over 250 of the world's biggest companies, including most of the UK's leading firms from the oil and gas sector and the financial sectors.

TAKING TO THE TORONTO HIGHWAYS

Coffey Geotechnics has been engaged to undertake bridge engineering services for two of Canada's major highways.

On Toronto's Highway 401, the second busiest freeway in North America, Coffey Geotechnics is surveying the conditions of major structures located between Leslie Street and Warden Avenue. In all, 17 bridges will be surveyed on behalf of client Delcan, along with retaining walls and noise barriers.

On Highway 427 SB Collectors, the business is undertaking a six-month condition survey schedule for its client McCormick Rankin Corporation, which includes the investigation of six bridge structures and retaining walls.

A-LEAGUE WIN

Stratcorp Consulting and partners Sporting Management Concepts have recently undertaken a feasibility study into the establishment of an A-league soccer team for the Australian state of Tasmania.

On behalf of the Tasmanian Government, Stratcorp Consulting looked at a wide range of issues, including the supporter base, potential stadium facilities and costs, administrative/training facilities, and potential revenue streams such as membership, gate revenue, sponsorship and merchandising.

A fully developed business case will be developed pending the results of this initial study.

NEWS



IBM WINS COFFEY INTERNATIONAL AWARD

IBM has won the prestigious Coffey International Award for its application of technical expertise to address the greatest societal and environmental challenges, announced at the annual Business in the Community (BITC) Awards for Excellence in London recently.

The Coffey International Award recognises companies' programs that have demonstrated positive impact against one or more of the United Nations Millennium Development Goals.

IBM received the award for World Community Grid, an innovative linking of computers around the globe to create a system with the virtual processing power of a Top 10 Supercomputer, devoted to humanitarian research.



NEW USAID RULE OF LAW PROJECT IN MEXICO

MSI, based in the United States and part of Coffey International Development, has been awarded a five-year, US\$66.3 million rule of law project funded by USAID/Mexico.

The Rule of Law III: Support for Legal Reforms project will work with state and federal justice institutions to strengthen their capacity to improve transparency, public oversight and public accountability to better serve Mexican citizens under the new constitutional reforms that shape the police and criminal procedure codes.

The project's work supports the Merida Initiative, which aims to prevent and eradicate organised crime.



SUPPORTING DARFUR

Coffey International Development has been assisting the high-level African Union Panel on Darfur by bringing together a wide range of stakeholders to participate in public hearings. The panel is currently examining the root causes of the Darfur conflict, aiming to promote justice and reconciliation.

Hearings were held in five areas of Darfur, as well as in Khartoum, and brought together internally displaced persons, tribal leaders, political parties and civil society groups. The peace process, justice, reconciliation and the role of the Darfurians in national Sudanese issues were among the key areas discussed.

The panel is chaired by former South African President Thabo Mbeki, and includes former Burundian President Pierre Buyoya, former Nigerian President Abdulsalami Abubakar, and other African dignitaries.



COFFEY MINING SUPPORTS FUTURE TALENT

Coffey Mining is collaborating with the University of Melbourne, one of Australia's most prestigious academic institutions, to address a decade-long shortage of skilled workers in the mining engineering sector.

The innovative Masters in Mining Engineering program is designed to offer people with an engineering background a pathway to high-level positions within the mining sector. Students will develop skills to complement their technical knowledge in engineering. Subjects include mineral economics, risk and safety management and mine planning methods.

MORE BUSINESSES TAKE THE CHALLENGE

Coffey International Development is managing AusAID's Enterprise Challenge Fund for the Pacific and South-East Asia, a program to encourage the private sector to develop commercially successful ventures that contribute to improving the lives of the poor.



The third bidding round of the Enterprise Challenge Fund for the Pacific and South-East Asia is likely to approve at least 11 new business projects in six countries, taking total grant funding to A\$14.5 million.

Coffey International Development's program manager, Linda Vasey, congratulated the likely new grant recipients who would be joining the 12 projects already in progress throughout the Asia Pacific.

"We are delighted to be approving around A\$6.7 million in grants during this current bidding round.

"The business projects, some of which have conditions to be satisfied before contracting can commence, include a variety of industries, including

tourism, remote location power, micro insurance, livestock development, rural based education services, agribusiness and biodiesel."

The fund encourages the private sector to develop commercially successful ventures that otherwise would not get the funding to enter the commercial market. By providing up to half of the project's funds, it helps to share setup costs and risk.

"Private sector development is essential for sustainable economic development and underpins Australia's goal of reducing poverty in the Asia Pacific region," Linda said.

The first and second bidding round provided funds for projects in Fiji, the Philippines, Cambodia, Lao PDR, Papua

New Guinea, Solomon Islands and Vanuatu.

Carnival Australia was a recipient of funding from the second bidding round for its project in Mystery Island, Wala Island and Champagne Beach, Vanuatu.

The business has established a market in several areas of Vanuatu. However, poor facilities, including jetties and sanitation facilities, have reduced the options for stopovers.

Funding will contribute to upgrading the infrastructure, opening up a new, lucrative market for locals and Carnival Australia.

"The Carnival project addresses important business-enabling impediments in terms of inadequate infrastructure,

limited business knowledge and skills in the local communities, as well as improved tourism promotion," she said.

In Laos, Sunlabob was given funding from the second bidding round to instal hybrid AC electricity grids in five remote villages, providing electricity to 650 households which do not currently have access to the main power grid.

Small hydraulic turbines, solar panels and biofuel generator sets will feed into grids in the villages that will not only provide lighting, but also enough power for standard equipment for small enterprises.

For more information, contact:
Linda Vasey
61 8 8418 1500
linda_vasey@coffey.com

CONTRIBUTING TO CULTURAL LIFE



Cultural facilities and public spaces often help define a city, just as the Louvre, the Guggenheim and the Sydney Opera House have done.

However, developing inspiring spaces – for a cultural group or for an entire city – can be a complex and challenging process, requiring a wide range of elements to be addressed, including design, heritage values, sustainability and the needs of various user groups.

Coffey Projects has considerable knowledge and experience with managing the intricacies of large-scale, high-profile, public exhibition spaces, theatres, museums, convention centres and art galleries.

CEO Tom Tucker said successful projects demanded significant planning, co-ordination, various levels of approval, and the management of diverse stakeholder groups, including local communities, user groups and government.

“Cultural projects require a specialised team that can operate in a highly creative environment, yet strictly adhere to a methodical approval process.

“Being able to communicate at all levels and with all types of stakeholders is also paramount.”

New Zealand’s Auckland Art Gallery Toi o Tamaki is currently undergoing major restoration and expansion work to transform the building into a world-class cultural facility. To provide the best possible outcome for the community, Coffey Projects is project managing the redevelopment on behalf of the Auckland City Council and the gallery.

The mayor of Auckland city, the Honourable John Banks, said the finished gallery would house the country’s finest art collection, attract major international exhibitions and bring a magnificent heritage building back to its original splendour.

The redevelopment entails heritage conservation, restoration, seismic protection and the insertion of sensitive new building elements.

Coffey Projects’ New Zealand regional manager, David Wilkie, said bringing the project to fruition involved liaison with a diverse range of stakeholders, ranging from the local arts community, councils and government to Maori and conservation interest groups.

Locals and visitors will get to walk through the doors of Auckland’s newest attraction in mid-2011.

Coffey Projects has also project managed the development of the Christchurch Art Gallery, the city’s most significant cultural project in 25 years. The world-class facility provides five times the public exhibition space that was available at the previous gallery, as well as the latest conservation laboratories.

Coffey Projects’ work began with preparing the brief, the budget and the delivery options report for the new gallery. It then managed the design and construction of the project, including selection of the architect.

“A unique two-stage architectural design competition was used to select the architect, exposing our client to 97 different design ideas, and facilitating cutting-edge design features, including the stunning ▶

fluid and elegant glazed sculpture wall patrons to the gallery now enjoy,” David said.

In Sydney, the Black Theatre project, undertaken by the Australian Government’s Indigenous Land Corporation, is another design triumph and an important resource for the local Indigenous community.

“**Being able to communicate at all levels and with all types of stakeholders is crucial to a project’s success.**”

Based in Redfern, the theatre’s exterior has been designed by local Indigenous artist Adam Hill and is based on the 1968 play *The Cherry Pickers* by Indigenous playwright Kevin Gilbert.

Koori Radio 93.7FM, Sydney’s only Aboriginal and Torres Strait Islander full-time community radio station, and Gadigal Information Services now call the theatre’s purpose-built studios home, after relocating from a disused hospital.

Coffey Projects’ New South Wales regional manager, David Williams, said the business was honoured to manage the theatre’s development from inception to occupation.

“Our work began with the preparation of the brief and feasibility studies, management of consultants, tender assessment and tenant liaison, and extended to the management of the contract administration phase and the fitout of the commercial radio station.”

The business has been subsequently engaged to project manage the National Indigenous Development Centre at the former Redfern Public School in Sydney.

“A 1.6 hectare centre is being developed to serve Indigenous social, educational and sporting programs and will serve as an integral part of the

Redfern Indigenous community,” David said.

The project has been identified as a development of state significance and incorporates the reuse of buildings listed with the National Trust.

Other cultural projects undertaken by Coffey Projects include the Civic Theatre restoration (Auckland, New Zealand), Newcastle Civic Theatre expansion (Newcastle, Australia), the Te Papa National Museum (Wellington, New Zealand), Queensland Museum – The Workshops Rail Museum (Ipswich, Australia), Perth Convention & Exhibition Centre (Perth, Australia), and Federation Square (Melbourne, Australia). ■

For more information:
David Wilkie
64 9 379 9463
david_wilkie@coffey.com

David Williams
61 2 9287 2100
david_williams@coffey.com





“

Cultural projects require a specialised team that can operate in a highly creative environment, yet strictly adhere to a methodical approval process.”

BUSINESS WARNED TO ACT ON ASBESTOS BEFORE NEW LAWS

Asbestos compliance is set to come under the microscope in Australia, according to Coffey Environments' workplace health and safety principal, Paul Foley.

"The introduction of the Fair Work Act and the move to national occupational health and safety (OHS) laws are likely to impact the way in which Australian businesses manage asbestos and other hazardous materials.

"Major changes to the workplace environment are looming, and now is the time for businesses to get their houses in order, to protect staff, to cover their legal liability and to facilitate the smooth running of their worksites," Paul said.

One of the imminent changes to the workplace environment is as a result of the Fair Work Act, which gives union officials the right to enter a business without notification, if it is believed there

are health and safety breaches. The legislation, which comes into force on 1 January 2010, also extends the right of entry to workplaces where there are no union members.

"However, businesses can proactively manage health and safety in the workplace and thereby facilitate the smooth running of a site.

"An up-to-date asbestos register and an asbestos management plan provide a business with information to run its site safely and to cost-effectively manage asbestos-containing material in the workplace.

"Under the new legislation, an asbestos register will also likely become an effective tool to communicate with employees and union officials," he explained.

Paul said on top of the changes brought about by the new

employment legislation, OHS was set to undergo major reform in Australia.

Australia is moving towards one set of OHS laws, which are developed by Safe Work Australia. This requires each state and territory to pass and adopt mirror laws by December 2011.

Currently, all states and territories are responsible for making and enforcing their own OHS laws. Although these draw on a similar approach, there are differences in the application and detail of the laws.

"New OHS laws are likely to precipitate tougher enforcement by regulators, particularly in regards to asbestos and other hazardous material compliance.

"This makes the stakes high for business, given that failure to comply in the current legislative environment may result in

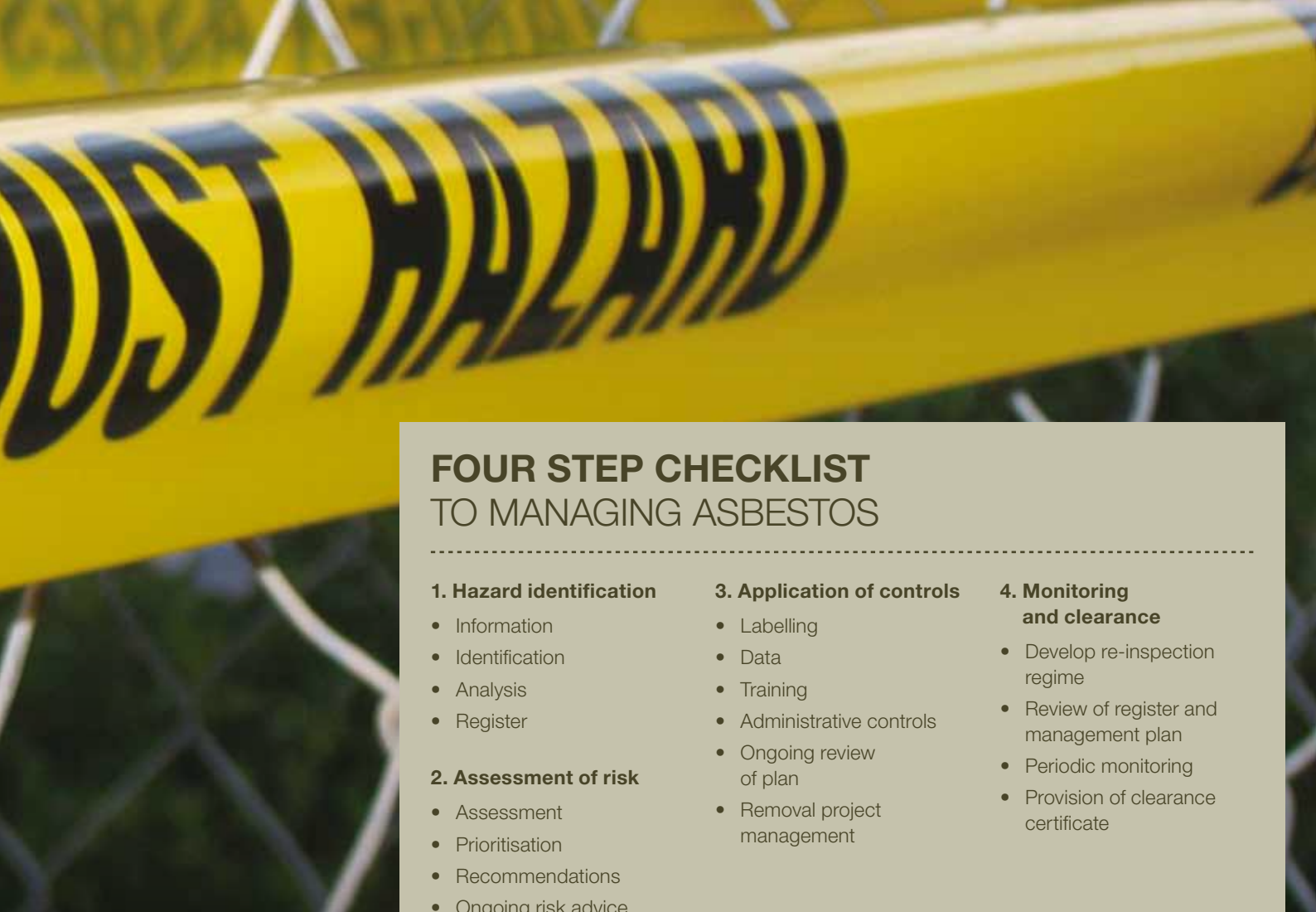
finest of up to A\$436,000 and imprisonment."

Paul suggested a wide range of facilities would come under the spotlight, with asbestos-containing materials found not only in commercial and industrial structures, but also in refineries, vessels and offshore facilities and contaminant materials in mineral ores.

While the national laws are likely to spark increased site visits from inspectors and more compliance notices being issued, it is not all bad news for businesses.

"National OHS laws will provide greater uniformity and standardisation for businesses working across states and territories.

"And with some good advice and management, hazardous material management can be cost-effectively incorporated



FOUR STEP CHECKLIST TO MANAGING ASBESTOS

1. Hazard identification

- Information
- Identification
- Analysis
- Register

2. Assessment of risk

- Assessment
- Prioritisation
- Recommendations
- Ongoing risk advice

3. Application of controls

- Labelling
- Data
- Training
- Administrative controls
- Ongoing review of plan
- Removal project management

4. Monitoring and clearance

- Develop re-inspection regime
- Review of register and management plan
- Periodic monitoring
- Provision of clearance certificate

into a business' operational plans," he explained.

Coffey Environments received Australia's first accreditation for asbestos and hazardous material surveying.

The business provides asbestos and hazardous material services throughout Australia, the USA, New Zealand and the Philippines. It also provides services to vessels prior to entering Australian waters, ensuring they are safe from asbestos and other hazardous materials, and suitable for Australian crew to board.

Coffey holds all three accreditations for asbestos work available in Australia – surveying, air monitoring/fibre counting and fibre identification.

For more information, contact:
Paul Foley
61 8 9355 7100
paul_foley@coffey.com



WHERE IS ASBESTOS FOUND?

Items that contain asbestos are often referred to as asbestos-containing materials. They are found in:

- Loose asbestos fill products, eg fire pillows and "blow in" insulation
- Preformed insulation, eg pipe lagging and boiler lagging
- Sprayed coatings for fire proofing
- Insulating boards, eg heater bank insulation and fire barriers
- Fire door cores
- Paper and felts for insulation on electrical equipment, eg electrical switchboards
- Waterproof membranes
- Industrial paints and coatings
- Ropes and textiles to wrap around hot items
- Gaskets and washers
- Friction linings in lift brakes or automatic door clutches
- Asbestos cement sheeting either flat or profiled, eg roofs, eaves, walls, ceilings
- Moulded asbestos cement products, eg extraction hoods, junction boxes
- Vinyl floor coverings either incorporated into the tile or as a backing paper

AUSTRALIA'S LARGEST CONSTRUCTION PROJECT

The land we now know as Melbourne's Docklands, located on Victoria Harbour at the western edge of Australia's second largest city, could tell many a story.

Steeped in rich history, this former marshland was home for thousands of years to the clans of the Kulin Nation – the Wurundjeri and Bunerong people. It was also the location of Melbourne's first industries, especially those connected with the livestock trade: abattoirs, bone grinders, wool washers and candle makers. In the late 1880s the site was converted into a prominent industrial and transport hub. It was virtually abandoned 90 years later.

Today the Melbourne Docklands, which covers 200

hectares of land and water, is Australia's largest construction project and Melbourne's biggest urban renewal development. It has turned this heavily industrialised site into an exciting waterfront destination, with a mixture of residential, commercial, recreational, retail and entertainment spaces spanning nine precincts.

The project, which Victorian Government body VicUrban is responsible for, is now approaching the halfway point of its 20-year staged plan, with A\$5.5 billion of development completed or under construction.

Key transport links have been established with the opening of Wurundjeri Way, the new Bourke Street footbridge,

the La Trobe and Collins Street extensions, and the redevelopment of Spencer Street Station, now Southern Cross Station.

Coffey's specialist skills have facilitated the development of this vibrant and diverse living and working space. The company has managed the remediation of a former industrial site to enable the land to be reused, and provided specialist ground and rail engineering skills for the construction of new transport links. It has also provided strategic advice and project management skills for many of the key districts and for the major leisure and entertainment facilities.

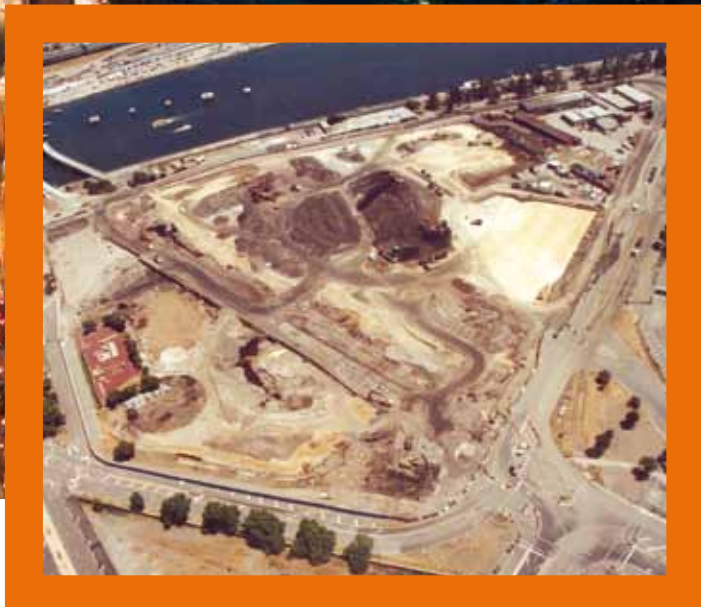
Principal scientist Phil Sinclair said Coffey Environments,

in partnership with Abigroup Contractors, remediated the former West Melbourne Gas Works site in accordance with the requirements of the Victorian Environment Protection Act.

"The 7.6 hectare site contained extensive distribution of polycyclic aromatic hydrocarbon (PAH) impacted ash, fill and free tars.

"In total, more than 270,000 cubic metres of soil was excavated from the site, with around 35 per cent being segregated, treated and reused at the site," Phil said.

At the conclusion of the excavation and validation works in 2002, the team prepared a validation report which enabled the auditor to



issue a compliance statement for the site, a prerequisite for the new development to commence.

The Victoria Harbour precinct, which now in part sits on the former gas works site, is a vibrant mix of residential, retail, office and public space with 3.7 kilometres of waterfront. A number of major corporations are relocating to the precinct, including NAB, ANZ, Myer, Lend Lease, Fujitsu and Ericsson.

Coffey Projects has more recently project managed the fitout of Ericsson's new corporate headquarters at Victoria Harbour. An integrated approach was taken, with the fitout and building designs developed concurrently, providing the client with

substantial time and cost benefits. The offices feature high-quality audio-visual and video conferencing capabilities, and all power and data runs through the floor space.

The Docklands is also home to Etihad Stadium, a multi-purpose facility designed to cater for major sporting and entertainment events. The stadium, which was project managed by Coffey Projects, is the only football stadium in the Southern Hemisphere with a fully retractable roof. Since opening in 2000, more than 19 million people have passed through the venue's turnstiles.

Across from Etihad Stadium is the state-of-the-art Digital Harbour precinct, which Coffey Environments also played a role in developing. ▶



Digital Harbour is a specialist IT precinct, housing commercial companies and government agencies that all have a strong emphasis on research and innovative technology.

Coffey Environments was the environmental auditor for the project and provided impartial advice to developer Digital Harbour Holdings on site suitability. It identified key environmental risks, enabling the developer to assess the financial risks and to structure a successful bid.

At Waterfront City, the entertainment and lifestyle precinct, Coffey Projects has worked as contract administrator on behalf of developer ING Real Estate.

Coffey Projects' regional manager Victoria, Alister Lindsay, said the business' role included monitoring the progress and quality of the A\$450 million retail, commercial, residential and leisure development, certifying the constructor's progress claims and the completion of stages.

Waterfront City's attractions include Melbourne's largest marina and the Southern Star Observation Wheel. It has recently been announced that an elite-level ice sports centre will be added to the attractions, and ING Real Estate has once again called on Coffey Projects to contract administer the A\$36 million project.

"The National Ice Sports Centre will feature two rinks with spectator seating and be equipped to host national and international ice hockey, figure

skating, curling and speed skating events," Alister said.

Coffey Projects' role also continues at other precincts within the Docklands, with the management of Kangan Batman TAFE, located at Batman's Hill. The new campus is the main statewide provider of automotive skills, training and education, incorporating industry skill, participation and knowledge. The Automotive Centre of Excellence is co-located with the Fox Classic Car Museum.

"The project has been undertaken over three stages, with stage one now complete. Managing multiple stakeholders is central to the effective management of the program," he explained.

Coffey Projects is providing full project management services, including selecting a consultant team, establishing and managing user groups, and reporting to a project control group comprising the client, Skills Victoria, Fox Car Museum and VicUrban representatives.

"We have managed all submissions to authorities and approvals, including the overall development plan, the VicUrban development agreement and all utility negotiations and approvals." ■

For more information, contact:

Phil Sinclair
61 3 9473 1400
phil_sinclair@coffey.com

Alister Lindsay
61 3 8866 2600
alister_lindsay@coffey.com



NEW SYSTEM IMPROVES SAFETY AND COST



The peak national body representing Australia's oil and gas exploration and production industry has recognised Coffey Geotechnics for developing an innovative geo-marine barge positioning system that dramatically improves the safety and project cost of geotechnical sea-bed surveys. Mitigating some of the risk associated with positioning jack-up barges, the new system is set to have worldwide application.

The Australian Petroleum Production and Exploration Association (APPEA) has awarded Coffey Geotechnics with this year's Contractor Safety Innovation Award for its geo-marine survey technology which dramatically improves the safety of sea-bed investigations.

APPEA chief executive Belinda Robinson said only companies with the best safety performance and innovative approaches were short listed for APPEA's Safety Performance Award.

"The overall winner was chosen on the basis of an initiative or innovation that has led to a significant improvement in injury rates.

"I commend Coffey Geotechnics for its innovative use of technology in substantially reducing risk during the positioning of jack-up barges."

Before Coffey Geotechnics developed the technology,

positioning exploratory jack-up barges and self-elevating work platforms for major oil and gas projects had often been a dangerous and expensive process.

"Small jack-up barges had historically been very difficult to position with any accuracy as tow vessel masters are at the mercy of strong currents, strong winds and wave action and often have no identifiable navigation aids, such as a defined coast line, to refer to," explained Sebastian Norris, Coffey Geotechnics senior engineering geologist.

"Limited reference points and the influence of tide, wind and waves made it easy to lose track of a barge's location in relation to hazards in the investigation area, including coral reefs, live pipelines or cables, and even shipwrecks with unexploded ordnances.

"With six people on a barge weighing in the vicinity of 130 tonnes, the last thing you want is for it to become unstable in any way," Sebastian said.

Coffey Geotechnics' new system allows a tow vessel master to have visibility of both the barge and its position on the tow vessel navigation screen as well as geospatial information about the sea-bed hazards in the investigation area.

"In geo-marine surveys you are often moving a barge to up to 70 different locations, with each move taking around one hour. It used to be that if you were operating in bad weather the whole process could be extended by days.

"If you didn't accurately place your barge, you'd have to go around in a circle and try again, with some moves it could take up to five hours to get right."

Sebastian said the new technology had already provided clients with substantial cost savings.

For more information, contact:

Sebastian Norris
61 8 9355 7100
sebastian_norris@coffey.com

SHARING THE OIL & GAS CHALLENGES



The risk and cost structure associated with the oil and gas sector provides a number of opportunities and challenges for owners and operators.

On the positive side, discoveries can be brought on-stream relatively quickly and have a low operating cost structure compared with major base metal discoveries.

However, projects are often onerous, requiring the delicate management of the environmental, ecological and social impacts. Exploration drilling, particularly offshore, can also be a very expensive undertaking.

Liquefied natural gas (LNG), in particular, is expected

to grow strongly over the next 10 years, with industry commentators predicting global demand to triple to 400 million tons per year by 2020.

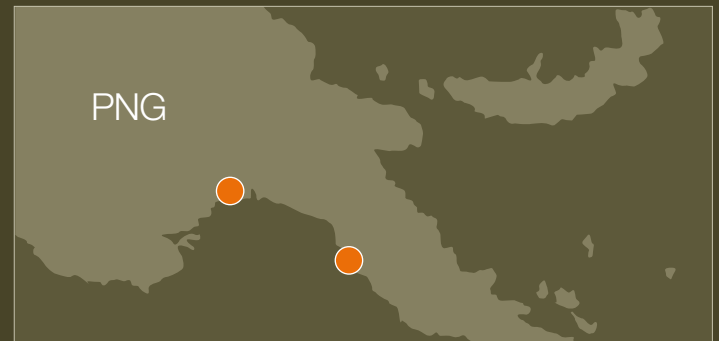
Coffey shares the challenges faced by the sector, and the company's specialist knowledge of the environment, ground engineering and the regulatory process is providing clients with valuable information to make important investment and operational decisions.

The company's accredited businesses are also providing the industry with innovative solutions to save time, reduce costs and improve safety during the exploration, construction and operational phases.

Coffey's experience encompasses some of the world's largest oil and gas projects undertaken around the world, including:

Coffey Natural Systems

Papua New Guinea
Liquefied Natural Gas Project



The Papua New Guinea Liquefied Natural Gas Project involves the development of a number of gas fields and facilities to produce LNG for export. An extensive onshore and offshore pipeline network will enable transportation of the gas to a new LNG plant near Port Moresby and stabilised condensate to the existing oil processing and storage.

The proposed project, the largest private investment in PNG, will produce 6.3 million tonnes of LNG a year, piped from the highlands to LNG facilities on the coast near Port Moresby. It will be a boon for PNG, producing an estimated benefit of more than US\$30 billion to the nation's economy over the life of the project, due to begin in 2014.

On behalf of its client Esso Highlands Limited, a PNG-based subsidiary of the Exxon Mobil Corporation, Coffey Natural Systems developed a comprehensive environmental and social impact assessment – which included substantial stakeholder engagement with government agencies, NGOs and communities in the project impact area – to advance the project.

In 2009, Papua New Guinean landowners struck a landmark agreement and an environment permit, which authorises the commencement of project works, was issued by the Government of Papua New Guinea.

Coffey Environments and Coffey Geotechnics

Ichthys Project, Western Australia and Northern Territory



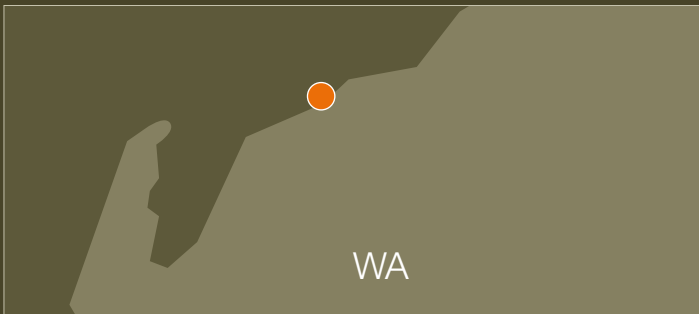
Coffey Geotechnics and Coffey Environments are providing specialist technical knowledge to the development of the proposed Ichthys Project, a joint venture between INPEX Browse and Total E&P Australia.

Gas from the Ichthys Field, located off the coast of Western Australia, will undergo preliminary processing offshore to remove water and raw liquids, including condensate. The gas will then be exported to the onshore processing facilities in Darwin via an 850-kilometre subsea pipeline. Coffey's work includes investigating and understanding the geological and foundation conditions for these important onshore and offshore facilities.

The Ichthys Project is expected to produce more than eight million tonnes of LNG, approximately 1.6 million tonnes of LPG per annum and 100,000 barrels of condensate per day.

Coffey Geotechnics, Coffey Natural Systems, Coffey Information, Coffey Environments and Coffey Projects

Wheatstone Project, Western Australia



Coffey is providing specialist services for the proposed Wheatstone Project, located on Western Australia's Pilbara coastline, between Karratha and Exmouth.

Owned and operated by Chevron, the project involves two LNG processing trains, a domestic gas plant and export facilities.

Coffey Geotechnics

Keystone Pipeline, Alberta, Canada



Information from Coffey Geotechnics' horizontal drilling assessments has enabled TransCanada, the owner of the project, to make important decisions about the pipeline.

The 3,450-kilometre long Keystone Pipeline, which is currently under construction, will transport crude oil from Hardisty through Saskatchewan and Manitoba, Canada, to the United States.

In Canada, the project involves the conversion of existing natural gas pipeline to crude oil service and the construction of new pipeline.

Coffey Geotechnics, Coffey Environments, Coffey Projects, Coffey Information and Coffey Mining

Gorgon Project, Western Australia



Coffey is providing specialist skills to the Gorgon Project, which is being pursued by the Australian subsidiaries of Chevron, ExxonMobil and Shell. The project plans to develop the Greater Gorgon area gas fields, located between 130 and 200 kilometres off the north-west coast of Western Australia.

The resource being tapped contains about 40 trillion cubic feet of LNG – enough to power a city of one million people for 800 years. Globally, the net impact of using Gorgon LNG will result in about 45 million tonnes less greenhouse gas emissions, when comparing against coal.

After the granting of production licenses and final state development approval, the green light for the Gorgon Project has recently been achieved.

OUR OFFICES

AUSTRALIA Adelaide | Albany | Albury | Alstonville | Armidale | Brisbane | Cairns | Canberra | Coffs Harbour | Darwin | Dunsborough | Geelong | Gosford | Hobart | Kalgoorlie | Maroochydore | Melbourne | Newcastle | Nowra | Port Macquarie | Perth | Sydney | Townsville | Wollongong **BRAZIL** Belo Horizonte | Salvador | São Paulo **CANADA** Barrie | Burlington | Calgary | Markham | Toronto **GHANA** Accra **INDONESIA** Jakarta **NEW ZEALAND** Auckland | Christchurch | Queenstown | Silverdale | Tauranga | Wellington **PAPUA NEW GUINEA** Port Moresby **PHILIPPINES** Manila **POLAND** Warsaw **SOUTH AFRICA** Johannesburg **UNITED ARAB EMIRATES** Dubai **UNITED KINGDOM** Burton-upon-Trent | Harrogate | London | Manchester | Reading **UNITED STATES OF AMERICA** Los Angeles | New Jersey | Washington DC **VIETNAM** Hanoi **ZAMBIA** Lusaka

OUR BUSINESSES

coffey  **SPECIALIST KNOWLEDGE
EXTRAORDINARY OUTCOMES**

coffey  **mining**
SPECIALISTS FROM BOARDROOM TO MINE FACE

coffey  **environments**
SPECIALISTS IN LIVING AND WORKING PLACES

coffey  **natural systems**
SPECIALISTS IN PEOPLE AND PLACE

coffey  **geotechnics**
SPECIALISTS MANAGING THE EARTH

coffey  **projects**
SPECIALIST LEADERS AND MANAGERS

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If you have suggestions, would like to contribute or receive *Infusion* electronically, please email contactus@coffey.com