



# INTERIM REPORT TO STAKEHOLDERS

AUGUST 2008

CAROONA COAL PROJECT



**bhpbilliton**  
resourcing the future

# 1 Introduction

BHP Billiton commenced exploration activities in the Caroonia Exploration Licence Area (ELA) in April 2006 as part of a five year program to determine the extent of the coal resource and potentially develop a mine proposal.

BHP Billiton informed stakeholders of a three-step process for the exploration program, proceeding through regional exploration, to targeted exploration then specific assessment of a mine proposal should a suitable resource be identified.

REGIONAL EXPLORATION

2006-2008

TARGETED EXPLORATION

2008-2009

PROJECT ASSESSMENT

2009-2011

The company has completed the regional exploration program and is now in a position to provide an interim report to stakeholders on two years of activity and outline its plan for a targeted exploration program.

This interim report to stakeholders provides a summary of exploration activities over the past two years, covering the extent of the regional exploration program, environmental monitoring, community consultation and the Community Fund. The report then outlines where within the ELA BHP Billiton will be focusing its targeted exploration program over the next two years.

## Key Points

- Regional exploration phase, including 95 exploration drill holes, extensive seismic surveys and surface surveys are now complete
- Extensive environmental monitoring covering groundwater, surface water, dust, meteorological conditions and geology now in place
- BHP Billiton is not considering open cut mining on any part of the Caroonia ELA
- Area for targeted exploration program now identified
- Community Fund approved contributions of \$567,000 to local initiatives

## 2 The Regional Exploration Program

The regional exploration program was designed to scope the extent of the coal resource in the ELA, the geological, hydrogeological and preliminary environmental constraints in accessing the coal, and to gather baseline data for a range of environmental measures. Limited exploration work had been carried out by NSW Government agencies in the region over the previous 30 years.

The ELA contains a variety of landform features, with some elevated topography (ridge country) as well as low-lying alluvial sediments (the flood plain) with deep alluvial aquifers underneath parts of the flood plain.

The regional exploration program involved the use of a number of exploration techniques:

- A matrix of slimcore exploration drill holes was mapped out at between four and two kilometre intervals on the floodplain and at one kilometre intervals on ridge country;
- A range of remote sensing devices were used, including BHP Billiton's FALCON® airborne remote sensing technology, to gather geological data with minimum impact for landholders; and
- Seismic survey works were completed to provide additional information for modelling the location of geological structures (e.g. fault zones).

As at June 30, 2008, 95 slimcore exploration drill holes were complete and the majority of the grid was complete. Some of these 95 bore holes were in addition to the original regional exploration plan, and represent additional holes required for environmental monitoring and a transition into more targeted exploration in the ridge country.

Each drill hole serves a number of purposes; it provides data on the geology of the area, location, depth and quality of the coal seam, and, if present, the location and depth of alluvial aquifers and the strata above and below these features.

All data is logged and used in various aspects of geological and hydrogeological modelling and environmental monitoring.

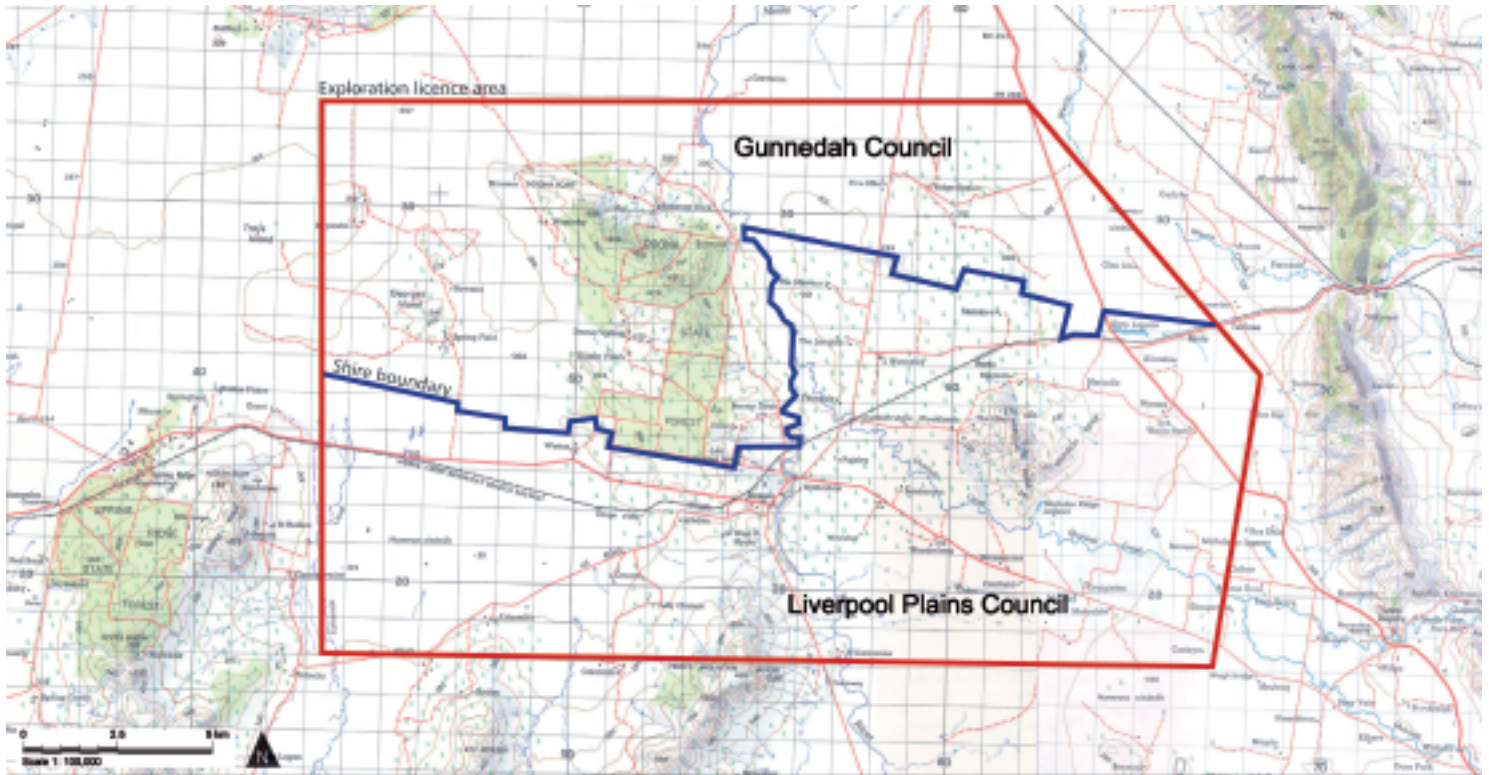
Prior to the commencement of each drill hole, BHP Billiton undertakes an assessment process to ensure any particular fauna, flora or cultural heritage that require protection are identified and appropriate management controls implemented.

The regional exploration program, and data from previous work carried out by Government agencies, has allowed broad definition of the location of the

deep alluvial aquifer, location of the coal resource, and completion of preliminary assessment on how mining may impact the environment of the ELA.

Further drilling will occur across the ELA in the future to better define the location of deep alluvial irrigation aquifers, the coal resource and other geological features.

## Map 1: Caroona Exploration Licence Area



## 3 Working With Landholders

While the wider Gunnedah Basin has a long history of coal mining, mineral exploration is a new experience for many Liverpool Plains landholders.

Landholders have had to come to grips with many issues about the exploration program. They are understandably anxious about the future and what a mine could mean for the region.

During the first round of meetings and consultation in 2006 landholders told BHP Billiton they wanted to know more about mining and the exploration process.

They wanted information about approval processes and reassurance there would be independent assessment of a mine proposal.

Landholders expressed concern about the uncertainty of living in an exploration licence area.

Landholders told BHP Billiton about the value they attached to existing land use and their way of life. They were concerned that any changes to water security would damage both their livelihoods and way of life.

BHP Billiton respects the depth of landholder concerns and has worked hard to address these issues.

Landholders have helped BHP Billiton understand the value of the Liverpool Plains floodplain for agriculture and how important the deep alluvial aquifer is for irrigation and town water supply.

BHP Billiton expresses its gratitude for the time land holders have spent showing company representatives around their properties, explaining local landuse and groundwater use and suggesting how we could make our exploration activities less intrusive.

BHP Billiton has had more than 250 face-to-face meetings with landholders to talk through the exploration drilling program and access arrangements for drilling operations.

We express our thanks to landholders who have allowed us to conduct exploration drilling. Drilling assists us to have a better understanding of the coal resource and hydrogeological and geological features.

This Interim Report to Stakeholders outlines how BHP Billiton has responded to the issues raised by landholders and the company's plan to focus on a targeted exploration area.

## 4 Community Consultation

The Caroon Community Consultative Committee (CCC) was formed in June 2006 as a forum for open discussion between appointed community representatives, relevant government agencies, other interested stakeholders and the Caroon Coal Project team. Mr Garry West (former NSW State Minister and Member for Orange) was appointed as Chairman.

The committee's membership included:

- two representatives from BHP Billiton;
- The Department of Primary Industries;
- Liverpool Plains Shire - two representatives;
- Gunnedah Shire - two representatives; and
- Eight community representatives covering landholder interests, local business interests and members of the Walhallow community.

The CCC has been active throughout the regional exploration process. The committee has brought in external advisors to assist the committee review

technical aspects of exploration in the ELA and has asked for presentations from a number of experts working with BHP Billiton on the project.

The CCC also established a website to make technical reports and meeting agendas accessible to the community.

Fifteen committee meetings were held between June 2006 and June 2008. BHP Billiton expresses its thanks to current and past members of the CCC for their contribution.

In addition to the CCC, BHP Billiton has participated in a number of forums and open days to discuss the exploration program. Caroon Coal Project representatives have provided briefings on the project to local government, regional development organisations, natural resource management agencies and relevant state government agencies, educators, service clubs and local landholders.

BHP Billiton has opened offices in Quirindi and Gunnedah to make the company more accessible for the local communities.

## 5 Environmental Monitoring

During the regional exploration process BHP Billiton also established an environmental monitoring program. The environmental monitoring program provides data to measure any impacts of exploration activities but more importantly, provides a baseline of data to assess a potential future mining proposal.

Monitoring has focused on establishing baseline data on a range of measures covering groundwater, surface water, air quality, meteorological conditions, geology and land use.

Given the importance of the deep alluvial irrigation aquifer to the region, significant attention has been paid to understanding the extent of aquifers and putting in place monitoring systems to measure water quality and depth.

Hydrogeological work is seeking to determine if there is any connectivity between water in the deep alluvial aquifers and water in coal seams.

During the targeted exploration phase, and the future project assessment phase, there will be further environmental studies including groundwater, surface water, ecology, Aboriginal archaeology, historic heritage, air quality, noise, landscape, soils and geomorphology to determine existing conditions as part of an Environmental Impact Assessment.

### Groundwater

In 2006 BHP Billiton developed an extensive plan for groundwater monitoring across the ELA.

The Caroon Community Consultative Committee (CCC), chaired by Garry West, engaged Dr Wendy Timms, from the UNSW Water Research Laboratory, to review BHP Billiton's proposed groundwater monitoring plan and recommend any improvements.

Following Dr Timm's review and adoption of her recommendations, the plan was progressively implemented as exploration drilling proceeded.

Currently 15 groundwater monitoring bores have been installed as part of the project. These bores contain a total of 11 standpipe piezometers and 24 vibrating wire piezometers (in 4 bores) to monitor groundwater in the alluvium and coal seam aquifer systems within the ELA. The monitoring program also includes monitoring of 13 existing Department of Water & Energy (DWE) standpipe piezometers in 11 separate bores already located within the ELA. A total of approximately 52 bores containing standpipe or vibrating wire piezometers will be monitored as part of the Caroon exploration project, including the bores established to date and the DWE bores.

The different types of monitoring bores allow monitoring at different depths and for water samples to be collected from different aquifers and from around coal seams. The program monitors for water levels and bore flow, pH, electrical conductivity and dissolved oxygen. Extensive analysis of the mineral content of water is carried out at independent laboratories to develop a baseline understanding of the quality of groundwater in the ELA.

Water quality monitoring covers analytes, including major cations and anions (calcium, magnesium, sodium, potassium, manganese, chloride, sulfate, bicarbonate), total nitrogen, total phosphorus, sulphide, nitrate, iron (ferrous and ferric), selenium, boron, strontium and bromide.

BHP Billiton has also been conducting rock permeability tests to map fractured rock aquifers that may be present.

When BHP Billiton's hydrogeological studies and modelling are complete, the outcomes will be shared with the CCC and other relevant stakeholders. Monitoring will continue throughout the life of the Carooona Coal Project.

BHP Billiton also sampled water in existing stock or irrigation bores (if these bores were near an exploration drill hole) before and after drilling.

### Surface Water

Surface water monitoring is taking place on the Mooki River and on Quirindi Creek.

Water quality monitoring is being undertaken monthly at these sites to determine existing surface water conditions. The selected sites are located close to river flow gauging stations managed by the NSW Department of Water and Energy (DWE), so that the water quality data collected during the monitoring program can be combined with the flow data currently being collected by DWE.

Surface water monitoring covers similar quality indicators to those established for groundwater monitoring. In addition, surface water monitoring also samples for nutrients and petroleum hydrocarbons.

### Air Quality

Eight dust monitoring stations have been established to gather data on existing dust levels across the ELA.

Six dust deposition gauges have been set up to measure the heavier dust particles in the atmosphere, which settle out of the air and deposit on the ground.

Two High Volume Air Samplers have been installed within the Carooona ELA to measure the amount of finer dust particles that are suspended in the air

### Meteorological

An automatic meteorological station was installed in the ELA in February 2008. The station continuously monitors weather conditions including temperature, rainfall, wind speed and direction, and solar radiation. Data collected from the meteorological station will establish the local weather conditions to supplement data from other nearby Bureau of Meteorology stations. Local, accurate weather data will assist in better modelling of how any future mine proposal might impact on the region.

### Geology and Soils

Extensive data is being gathered to assist in understanding the hydrogeological properties of rocks and sediments.

This includes:

- geophysical logging of both the alluvium and the bedrock (this helps define the depth and thickness of the aquifers and characteristics of the rock strata;
- permeability tests on the aquifers and on the rock material that separates the aquifers; and
- geotechnical tests on rock samples to define the strength and attributes of the rock.

Extensive information is being gathered about the location of coal seams and their relationship with the deep alluvial irrigation aquifers.

## 6 Community Fund

In addition to consultation about the exploration program, extensive consultation was carried out as part of the development of the \$5 million community fund.

BHP Billiton businesses aim to make a valuable contribution to their local communities, not only by providing employment opportunities, but also by supporting organisations that help to create a healthy and sustainable social fabric.

In October and November 2006 BHP Billiton, in conjunction with Coakes Consulting, engaged the assistance of key community representatives across a range of sectors to determine community needs and priority areas for investment.

The most common areas of need raised during consultation were:

- Improving access to health services;
- Skills development training in mining and non-mining sectors;
- Support for local businesses;
- Support programs for the indigenous community;
- Support for local community group initiatives; and
- Preservation of water resources.

BHP Billiton would like to thank the seventeen education and training organisations, the six Community groups, the Shires of Gunnedah and Liverpool Plains, the five Economic Development bodies and the seven Environment and Land Management groups that assisted in shaping the structure of the Fund.

Following community consultation, BHP Billiton used the community needs analysis to develop Community Fund Focus Areas which would deliver tangible and sustainable community outcomes. The five focus areas are Education and Training, Indigenous Development, Health, Community Development and Environment.

Between April 2006 and June 2008 the Community Fund approved contributions of over \$567,000 to support community based programs broken down as follows:

- \$345,508 in Education and Training, which includes five University Scholarships for local students receiving \$8,000 per year per student, and 25 Year 10 students in Gunnedah and Quirindi completing a Cert 1 in Metals and Engineering;
- \$15,626 in Indigenous Development which includes laptops for students studying remotely, sport programs and NAIDOC Week celebrations;

- \$34,550 in Health funding which supported a Community Forum on Depression, regional fund raising events for the Cancer Council and Westpac Rescue Helicopter and support to engage a Project Manager for the Gunnedah Rural Health Centre. The Community Fund has committed \$500,000 in principle towards the Gunnedah Rural Health Centre subject to the project attracting sufficient funds from other sources;
- \$41,082 in Community Development for projects such as sculptor carvings in Pensioner Hill recreation area in Gunnedah, War Memorial works at Tambar Springs and local Business Awards; and
- \$35,000 in Environment works in partnership with the Namoi CMA, Quirindi High School and Liverpool Plains Shire Council to improve the structural integrity of a water course.

Through the Local Sponsorship programme \$36,972 supported local sport and recreation and \$58,900 was invested in the arts including the Dorothea MacKellar Poetry Awards, the Two Rivers Arts Council and the Gunnedah Shire Band.

## 7 Next Stage: Targeted Exploration

After two years of regional scale exploration, BHP Billiton has identified areas within the ELA for further targeted exploration.

These areas are generally located under the ridge country of Doona Point (including Doona State Forest), Nicholas Ridge and George's Island (refer to map - opposite page).

These areas are being targeted for further exploration because they represent a significant coal resource that has the potential to be efficiently extracted by underground longwall mining. While there are significant coal deposits under the floodplain, due to the sensitivity of the floodplain and associated agriculture to subsidence, these coal deposits cannot be efficiently extracted with current longwall technology.

Exploration drilling to date, and other survey work, suggests the surface topography and landuse on the ridge country have the potential to co-exist with some level of subsidence associated with longwall mining.

The parts of the ELA that are excluded from the targeted exploration area are generally the floodplain and where the deep alluvial aquifers are located.

As part of BHP Billiton's commitment to not bring forward a mining proposal that would negatively impact the deep alluvial irrigation aquifer or significantly impact agriculture on the floodplain, BHP Billiton will not pursue a longwall mining proposal in these areas.

The Mooki River and Quirindi Creek are outside the area to be targeted for further exploration.

BHP Billiton is not considering open cut mining on any part of the Caroonna ELA.

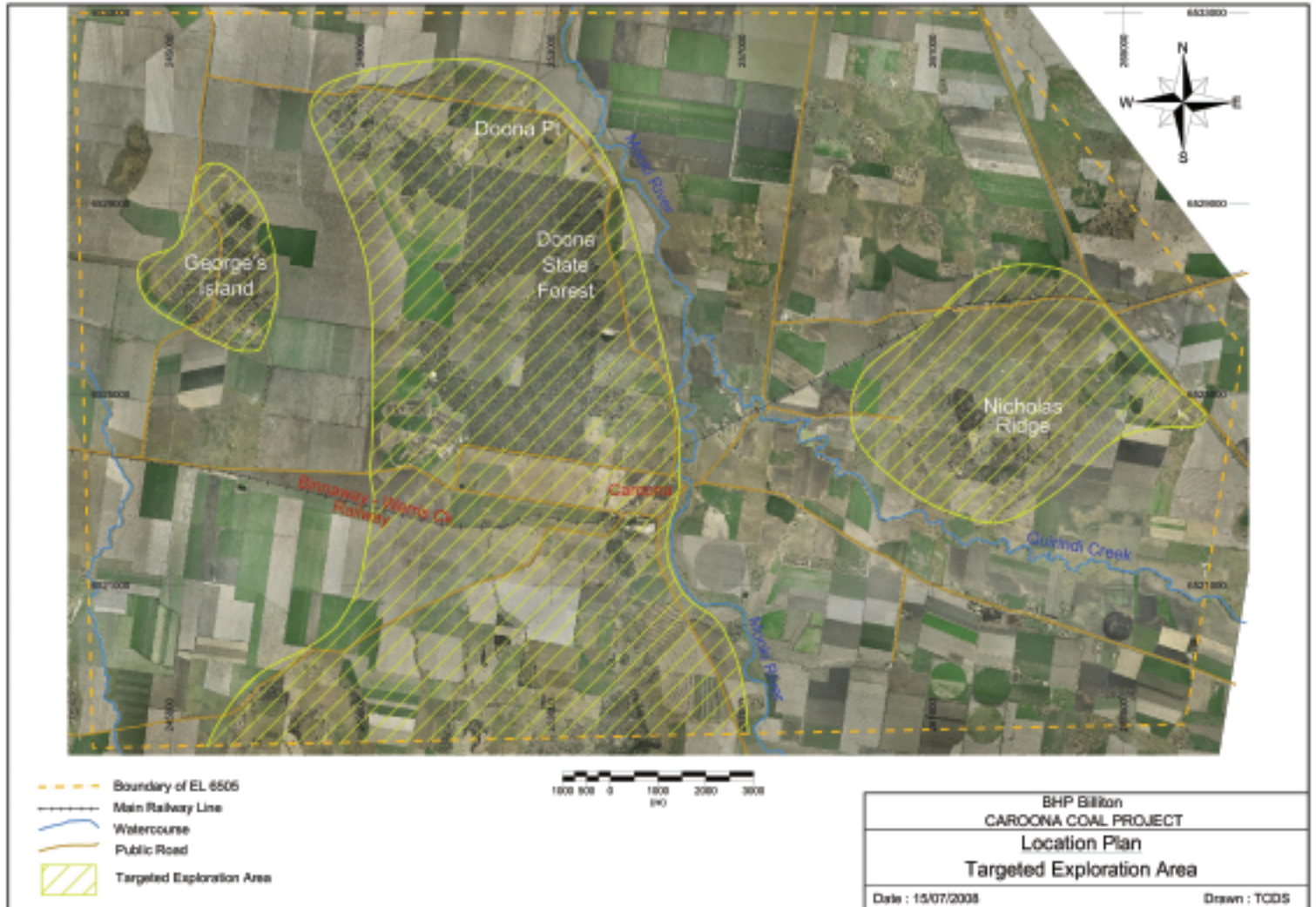
The company will complete its program of regional exploration drilling in the non-target area to further develop knowledge of deep alluvial irrigation aquifers and regional geology within the ELA.

The targeted exploration area represents approximately 126 square kilometres of the 350 square kilometre ELA.

The identification of areas for targeted exploration will bring greater certainty for all landholders within the ELA.

BHP Billiton is taking a balanced approach to any potential future development. This approach would minimise impact on high value irrigated agriculture while a coal resource that would create significant job opportunities and wealth for the region could be developed.

## Map 2: Targeted Exploration Area



### What next ?

BHP Billiton will commence another round of community consultation to present an overview of its regional exploration program and to outline its plans for the targeted exploration program.

BHP Billiton plans to meet with the CCC, local government, natural resource management agencies and other relevant state government agencies.

Most importantly, BHP Billiton will commence another round of one-on-one meetings with landholders within the ELA to brief them on the regional exploration program and plans for further exploration in the target area.

BHP Billiton is seeking through this next round of consultation to continue discussions about how farming and mining could coexist and make a sustainable contribution to the future of the region.

The targeted exploration phase will require further drilling and other exploration activity to better understand geology and hydrogeology.

Environmental monitoring within the target area and surrounds will continue to capture data on groundwater, surface water, air quality, meteorological conditions, geology and soils, and be stepped up to include other baseline environmental investigations including noise, flora and fauna, cultural heritage and soils.

More seismic surveys and other remote sensing technology will be used as part of the targeted program.

The targeted exploration phase, over the next two years, will enable BHP Billiton to understand the geology and hydrogeology of the area and assess if a mine could be economically viable and could proceed with acceptable environmental impacts.

At the conclusion of the targeted exploration phase (anticipated to be late 2009) BHP Billiton will again report back to stakeholders. By this time, BHP Billiton will have more certainty on its plans to potentially develop a mine proposal for full environmental and planning assessment.

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