

## 2 CONSOLIDATED LIST OF COMMITMENTS

BHP Billiton is seeking government approval to expand the existing Olympic Dam mining and processing operation. The activities proposed for the expansion were described in Chapter 5 of the Draft EIS, with the remaining chapters of the Draft EIS presenting the findings of environmental, social, cultural and economic assessments of these activities.

Each assessment concluded with a description of the predicted level of residual impact or benefit. That is, the level of impact or benefit remaining after commitments and management measures had been applied.

For the purpose of the Draft EIS and this Supplementary EIS, commitments are defined as those safeguards that BHP Billiton can commit to at this time. They include:

- project design decisions that would avoid an impact (e.g. a road-over-rail overpass would be constructed about 15 km north of Woomera to avoid vehicle and train interaction)
- outcome-based commitments (e.g. dust levels at Roxby Downs would not exceed applicable limits).

Table 27.1 of the Draft EIS provided a list of the 30 key commitments made in the Draft EIS. These commitments were in addition to the 200 management measures identified throughout the Draft EIS and collated in the Environmental Management Framework outlined in Chapter 24 and presented as drafts in Appendix U.

Following the receipt of public and government submissions on the Draft EIS, additional studies have been undertaken and the responses to issues raised are provided in this Supplementary EIS. In some cases, the responses include commitments by BHP Billiton that are in addition to those presented in the Draft EIS. Table 2.1 of this chapter provides a consolidated list of the commitments made in the Draft EIS and the Supplementary EIS for the proposed expansion of Olympic Dam. As with the Draft EIS, additional management measures have been identified throughout the Supplementary EIS and have again been collated and added to the Draft Environmental Management Programs, as discussed further in Chapter 29 of the Supplementary EIS. As noted in Chapter 1 of the Supplementary EIS, Appendix A3 provides a consolidated list of the management measures, monitoring programs and contingency measures listed in the Draft EIS and Supplementary EIS.

**Table 2.1 Commitments**

Issue	Commitment	Context
<b>Project component</b>	<b>Desalination plant</b>	
Impacts of desalination plant design and construction on the marine environment	To mitigate potential impacts during the breeding period of the Australian Giant Cuttlefish, the installation of the intake pipe in any rocky reef breeding habitat would only occur between 1 November and 1 May.	Australian Giant Cuttlefish congregate and breed on the rocky reef areas off Point Lowly during winter months. Installing the intake pipe for the desalination plant outside this period would reduce the potential for the cuttlefish to be affected. Draft EIS Reference: 16.5.2
	Should any areas of Australian Giant Cuttlefish breeding habitat be disturbed during construction activities, they would be reinstated following these activities.	Should rocky reef habitat be disturbed, the displaced rock would be reinstated to maintain the habitat value of the area. It is likely that the reinstated rock would be used as breeding habitat, as happens on the artificial rock breakwaters around Whyalla. Draft EIS Reference: 16.6.11
	The outfall pipe for the proposed Point Lowly desalination plant would be installed by tunnelling, rather than the trenching method described in the Draft EIS.	Responses to the Draft EIS highlighted a preference for tunnelling to reduce blasting in the rocky reef habitat offshore of Point Lowly. In response, BHP Billiton has committed to a tunnelling construction method for the installation of the outfall pipe. It is noted that trenching would remain the proposed construction method for the intake pipe because the alignment of this pipe is through soft sediments rather than the rocky reef cuttlefish breeding habitat and therefore would require minimal, if any, marine blasting. Supplementary EIS Reference: 1.4
Impacts of desalination plant design and operation on the marine environment	The return water diffuser would be designed and operated to deliver, as a minimum, the dilution predicted in the Draft EIS at 100 m from the diffuser and the dilution required to mitigate significant impacts at the nearest cuttlefish breeding habitat.	Modelling of the dispersion from the return water diffuser has been based on a set of design parameters aimed to provide a dilution that would protect the marine environment. However, the final design may be different to the modelled design and the predicted dispersion would be met by the final design. Draft EIS Reference: 16.5.2
	BHP Billiton would also ensure that chlorine was neutralised prior to discharge or disposed of on land, with only traces of common water treatment chemicals being present in the return water and within compliance limits.	Chlorine is added to the feedwater of the desalination plant to prevent marine growth inside the intake pipe. Chlorine reacts with bromide present in seawater to produce hypobromite and free chlorine. The chlorinated feed water is passed to the backwash settling lagoons, and any residual chlorine is neutralised using sodium metabisulphite. Sodium metabisulphite reduces hypobromous acid and hypochlorous acid (and their ionised counterparts) to benign sodium salts. The products of this reaction include halogenated organic chlorine by-products and possibly some residual sodium metabisulphite, both of which would be discharged in trace concentrations. Supplementary EIS Reference: 17.8.4

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
<b>Project component</b>	<b>Desalination plant (cont'd)</b>	
Impacts of desalination plant operation on the marine environment	BHP Billiton would undertake appropriate monitoring to identify significant changes to marine flora and fauna communities and water quality.	The modelling has provided estimates of the characteristics and impacts of the discharge water on the marine flora and fauna and water quality. Ongoing monitoring would occur to ensure that actual outcomes aligned with predicted outcomes. Methods of monitoring would be revised from time to time.  Draft EIS Reference: 16.6.5
	<p>Further details of this monitoring commitment provided in the Supplementary EIS are:</p> <ul style="list-style-type: none"> <li>• a detailed marine monitoring and management plan, incorporating habitat maps, would be developed in liaison with relevant stakeholders</li> <li>• future monitoring of salinity levels would be undertaken for comparison against species protection trigger values (SPTV)</li> <li>• monitoring would occur two years before the start of construction</li> <li>• monitoring would occur during the construction period</li> <li>• monitoring would occur during operations to verify the return water dispersion modelling results, and this would include times of dodge tides.</li> </ul> <p>BHP Billiton also commits to working with appropriate stakeholders to develop a capability to conduct marine biological work in the Point Lowly region.</p> <p>Furthermore, BHP Billiton commits to retrieving operational monitoring data in real-time (using live telemetry) enabling appropriate management responses to be initiated should dilution targets be exceeded.</p>	<p>Submissions questioned the adequacy of contingency measures proposed to counteract a system failure.</p> <p>In terms of risk, the likelihood of this event occurring was assessed as part of the Draft EIS and was categorised as 'rare', which was defined as occurring in only very exceptional circumstances (refer Chapter 26 and Appendix C of the Draft EIS for details). The consequence was categorised as 'serious' against the water quality and flora and fauna aspects (refer Table 26.2 of the Draft EIS for details). The resulting risk ranking is therefore 'high', indicating that the risk is tolerable but requiring a monitoring program and identification of contingency measures (as per Figure 1.11 of the Draft EIS).  Supplementary EIS Reference: 17.10.9</p>
	<p>BHP Billiton has committed to undertaking an annual survey of the Australian Giant Cuttlefish population at Point Lowly to establish a suitable baseline for the population before construction and operation of the desalination plant.</p> <p>BHP Billiton has committed to financing surveys of cuttlefish abundance and biomass, which would continue to improve the understanding of natural population variability.</p>	<p>Population surveys of the cuttlefish breeding population have been undertaken for the Draft and Supplementary EIS in 2008, 2009 and 2010 and by others since 2001. It is difficult to ascertain whether the recent declines in population size since 2001 represent an unusually delayed response to the intense exploitation of the species between 1993 and 1998, variation in recruitment success, possibly in response to changed environmental conditions, or natural cyclical variability in the population.  Supplementary EIS Reference: 17.10.3</p>
	If the return water discharge did not meet agreed regulatory thresholds for return water dispersion or monitoring identified unacceptable impacts, BHP Billiton would cease discharging return water from the desalination plant into Upper Spencer Gulf until the issue was resolved.	While BHP Billiton commits to ceasing the saline discharge in the event of failure to meet the government performance criteria, it is noted that the scientific assessments presented in Chapter 16 of the Draft EIS, and confirmed in Chapter 17 of the Supplementary EIS, show that the impact on marine fauna would be negligible, particularly on the Australian Giant Cuttlefish.  Supplementary EIS Reference: 32.2.2

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
Project component	General operation	
<p>Water supply for the proposed expansion</p>	<p>No additional water for the proposed expansion would be obtained from the Great Artesian Basin (GAB) beyond sustainable yields and that which is available under approvals from the South Australian Government.</p>	<p>The primary water supply for the proposed expansion would become a desalination plant located at Point Lowly, not groundwater from the Great Artesian Basin.</p> <p>Any additional water extracted from the Great Artesian Basin would be within South Australian Government approvals.</p> <p>Draft EIS Reference: 2.10.3; 12.7</p> <p>Supplementary EIS Reference: 12.5.8</p>
	<p>If monitoring results established that groundwater drawdown was likely to affect current third party groundwater users in the future, alternative water supply options for the affected users would be investigated. These may include relocating or deepening existing groundwater wells, or providing an alternative water supply. Options would be considered in consultation with the third party user.</p>	<p>Groundwater modelling undertaken as part of the Draft EIS established that there would be no impact on the quantity or quality of groundwater supplies for third party groundwater users as a result of the proposed expansion, during the time of operations and up to 500 years post-closure.</p> <p>Additional modelling conducted for the Supplementary EIS, with revised inputs, indicates that there would be no impact on third party groundwater users for about 100 years post-closure (i.e. around 2150). After this time, some reduction in groundwater levels at nine third party groundwater users may occur, with reduced levels likely to be less than three metres.</p> <p>Supplementary EIS Reference: 12.5.7</p>
	<p>BHP Billiton will provide the South Australian Government with a monitoring program, including contingency measures, for the proposed abstraction of groundwater from the Motherwell wellfield.</p>	<p>The Motherwell saline wellfield, located approximately 30 km north of Olympic Dam, is planned to provide the water supply for the construction phase of the proposed expansion.</p> <p>Numerical modelling has shown that operation of the proposed Motherwell wellfield (which would draw water from the Andamooka Limestone aquifer) would influence regional groundwater drawdowns.</p> <p>Draft EIS Reference: 5.7.7</p> <p>Supplementary EIS Reference: 12.5.3</p>
<p>Greenhouse gas emissions from the expanded project</p>	<p>Greenhouse gas emissions would be addressed by:</p> <ul style="list-style-type: none"> <li>• applying a goal of reducing greenhouse gas emissions (reportable under the National Greenhouse and Energy Reporting (Measurement) Determination 2008) to an amount equivalent to at least a 60% reduction (to an amount equal to or less than 40%) of 1990 emissions, by 2050</li> <li>• constructing an on-site cogeneration power station (250 MW capacity) for recovering waste heat</li> <li>• sourcing renewable energy (35 MW capacity) via the national electricity market (NEM) for the seawater desalination plant</li> <li>• producing an annual 'road map' that quantifies emission reduction opportunities and achievements.</li> </ul>	<p>Greenhouse gases are recognised as key contributors to climate change, evidenced through the findings of the International Panel on Climate Change.</p> <p>The current operation and the expansion would consume fossil fuels directly and indirectly, leading to greenhouse gas emissions.</p> <p>BHP Billiton has established its Climate Change Position and recognises that carbon trading schemes will play a significant role in achieving national and international goals.</p> <p>Draft EIS Reference: 13.2</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
Project component	General operation (cont'd)	
Greenhouse gas emissions from the expanded project (cont'd)	<ul style="list-style-type: none"> <li>• sourcing more renewable energy (22 MW capacity) via the NEM to power the pumping stations needed to transfer the water from the Point Lowly desalination plant to Olympic Dam</li> <li>• installing solar panels at the airport to supplement the electricity supplied from the NEM</li> <li>• supporting government in the development of a sector agreement on greenhouse gas and use of renewable energy</li> <li>• incorporating the Carbon Pollution Reduction Scheme (CPRS) into the economic modelling for the project once details of the scheme become available and there is certainty that it will be implemented</li> <li>• complying with the relevant requirements of such a scheme if and when it is implemented</li> <li>• including the effects of such a scheme on the viability of greenhouse gas abatement projects, and hence the projected emissions trajectory for the expanded operation in Olympic Dam's Greenhouse Gas and Energy Management Plan.</li> </ul>	<p>Since the Draft EIS was published, BHP Billiton has expanded the commitment to utilise renewable energy from the NEM for the desalination plant to include powering the pump stations that move the water to Olympic Dam. This equates to an additional 22 MW of renewable energy.</p> <p>In additional, BHP Billiton recognises that sectoral agreements can play a role in avoiding unnecessary carbon leakage in an international GHG mitigation scheme if they cover a critical mass of global production and are legally binding under international law with appropriate enforcement and verification measures. As such, BHP Billiton would support the Australian and South Australian governments in formulating an international sectoral agreement, and would welcome the opportunity to provide advice and comments to government in cooperation with national and international industry associations.</p> <p>Supplementary EIS Reference: 6.3.1, 13.2, 32.2.3</p>
Vegetation clearance offsets	<p>A significant environmental benefit (SEB) offset strategy would be implemented. This could be achieved by setting aside 126,650 ha of land in the South Australian Arid Lands Natural Resources Management (NRM) region or alternative arrangements as agreed with the South Australian Government.</p>	<p>Disturbance to approximately 17,000 ha of native vegetation is required for the expansion. <i>The Native Vegetation Act 1991</i> regulates the clearance of native vegetation in South Australia and clearance is to be minimised within the area approved for disturbance and be offset by an SEB (or set-aside area).</p> <p>There would be no clearance of native vegetation in the Northern Territory.</p> <p>Draft EIS Reference: 15.5.1</p>
	<p>BHP Billiton also commits to developing management plans for the nominated SEB areas in consultation with the Native Vegetation Council (NVC) and local NRM boards.</p>	<p>A native vegetation management plan is required to be submitted to the NVC describing how the SEB would be achieved, as part of the application for a vegetation clearance under the <i>Native Vegetation Act 1991</i>. NVC approval initiates a legal requirement to preserve nominated set-aside areas in perpetuity, ensuring ongoing environmental benefit to the region.</p> <p>Supplementary EIS Reference: 16.6</p>
	<p>With regard to offsets for the Northern, and Yorke and Eyre Peninsula NRM Regions, BHP Billiton proposes to retain the services of a third party to facilitate the required set-asides and achieve the SEB in compliance with the Native Vegetation Act.</p>	<p>BHP Billiton proposes to disturb 165 ha and 100 ha in the Northern, and Yorke and Eyre Peninsula NRM regions respectively, which would require an SEB approved by the NVC.</p> <p>While a third party would be utilised to assist in determining the appropriate set-asides for achievement of the SEB, BHP Billiton would also consult with the NVC and relevant stakeholders.</p> <p>Draft EIS Reference: 15.5, Section N9 of Appendix N</p> <p>Supplementary EIS Reference: 16.6</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
<b>Project component</b>	<b>General operation (cont'd)</b>	
Vegetation clearance offsets (cont'd)	BHP Billiton would make sufficient financial provision in the annual operational budget to fund management actions required to effect significant environmental benefit for the operational life-of-mine.	Draft EIS Reference: 23.1, 23.10 Supplementary EIS Reference: 16.6
Net biodiversity gain	<p>Actions would be taken to achieve a net gain for biodiversity over time, including:</p> <ul style="list-style-type: none"> <li>• implementing feral animal monitoring and control programs in the Olympic Dam region</li> <li>• collaborating with the Roxby Downs Council to reduce the impact of increased human activity on native flora and fauna in the region</li> <li>• developing targeted weed management strategies, including control of declared and environmental species in consultation with relevant NRM Boards.</li> </ul>	<p>Throughout the operation of Olympic Dam, BHP Billiton has dedicated resources to monitor and control introduced vertebrate species, and more recently to control introduced plant species, together with local stakeholders (Arid Recovery, Andamooka Progress and Opal Miners Association, and the Roxby Downs Council). The regional weed management strategy, developed by BHP Billiton with these partners, was first implemented in 2004 and is reviewed annually. The strategy represents a proactive approach to managing weeds in the Roxby Downs region.</p> <p>Draft EIS Reference: 15.5.11, 15.6 Supplementary EIS Reference: 16.6</p>
Workforce exposure to radiation	BHP Billiton would comply with internationally accepted radiation limits for workers and the public and would set a goal of maintaining doses at less than 50% of the internationally acceptable limits for workers.	<p>The internationally accepted approach to radiation safety, involving a system of dose minimisation and dose limitation, has been adopted in Australia and is a legislative requirement in South Australia and the Northern Territory.</p> <p>The approach is designed to protect the health of employees and the public.</p> <p>Draft EIS Reference: 22.6.5</p>
	BHP Billiton will conduct an International Commission on Radiological Protection (ICRP) ALARA (i.e. as low as reasonably achievable) optimisation study during the detailed design phase of the open pit and metallurgical plant.	<p>This study would review the effectiveness of measures for 'optimisation' proposed to be adopted by the expansion. 'Optimisation', as defined by the ICRP and the Radiation Code, refers to the process of implementing measures that either ensure restrictions on the doses to individuals (dose constraints), or limit the risks to individuals in the case of potential exposures (risk constraints), such that radiation doses are kept as low as reasonably achievable. Measures adopted for the expansion include:</p> <ul style="list-style-type: none"> <li>• specific radiation risk assessments</li> <li>• specific radiation-related design criteria</li> <li>• a research program to obtain further information on the radiation-related parameters of the proposed expansion.</li> </ul> <p>Supplementary EIS Reference: 26.1.2</p>
Occupational health and safety	<p>A 'safety case' for the current operation is being conducted and would incorporate all components of the proposed expansion. This includes:</p> <ul style="list-style-type: none"> <li>• identifying the hazards and risks of the proposed expansion</li> <li>• describing how the risks are controlled</li> <li>• outlining the safety management system and its implementation</li> <li>• monitoring and reviewing its effectiveness.</li> </ul>	<p>A 'safety case' is a rigorous assessment of the safety of complex or large industrial facilities and provides a comprehensive understanding of safety-related issues.</p> <p>The health and safety of employees and contractors is a primary goal of BHP Billiton and a 'safety case' provides a sound basis for ensuring that strategies are implemented to maintain safety at all times.</p> <p>Draft EIS Reference: 22.5.2</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
Project component	General operation (cont'd)	
Transport, storage and handling of fuels and hazardous materials	<p>Transport, handling and storage of fuels and other hazardous materials in the Special Mining Lease (SML) would be in accordance with the relevant state and Australian statutory requirements. As a minimum, the South Australian Environment Protection Authority standards would be used, which require bund sizes and volumes to be 120% of the net capacity of the largest tank and 133% for flammable material.</p>	<p>The objective of this commitment, as occurs with the current operation, is to prevent spills from occurring and, if they do occur, to contain the spillage.</p> <p>Draft EIS Reference: 10.5.4, 11.5.2, 12.6.2, 22.6.8</p> <p>Supplementary EIS Reference: 10.4, 11.1.2, 32.2.5</p>
Impacts from air emissions other than dust or sulphur dioxide	<p>BHP Billiton is committed to ensuring that emissions from the expanded operation do not adversely impact the health and well-being of nearby communities through adhering to relevant emissions criteria, and cooperating with government in the development of future emissions limits as necessary to reflect the increasing body of knowledge surrounding the health impacts of air pollutants.</p>	<p>The BHP Billiton Group Sustainable Development Policy outlines the company's goal of Zero Harm to its people, their host communities and the environment in which it operates. The Policy also commits the company to contributing lasting benefits to society by considering the health, safety, social, environmental, ethical and economic aspects of the activities it undertakes.</p> <p>Supplementary EIS Reference: 14.1.3</p>
Impacts from noise from the expanded operation	<p>BHP Billiton would maintain noise levels generated from the expanded mining and processing operations to below 45 dB at the exterior of residential dwellings in Roxby Downs and Hiltaba Village.</p>	<p>The South Australian Environment Protection (Noise) Policy 2007 contains no specific criteria for avoiding sleep disturbance. However, it does require, in Section 5, Part (8), that noise levels in closed rooms should meet either the criteria outlined in the Australian/ New Zealand Standard AS/NZS 2107:2000 – Acoustic Recommended Design Sound Levels and Reverberation Times for Building Interiors, or the external noise criteria minus 20 dB, whichever is greater. Noise attenuation studies undertaken by both the proposed accommodation unit manufacturers and ARUP Acoustics have demonstrated that, with the windows closed, the proposed accommodation units would reduce external noise by between 24 and 30 dB, ensuring that operation noise levels within the accommodation units would not exceed 30 dBL<sub>Aeq</sub> with the windows closed.</p> <p>Supplementary EIS Reference: 15.1</p>
Weed management	<p>The regional weed management strategy developed between BHP Billiton, Arid Recovery, the Roxby Downs Council and the Andamooka Progress and Opal Miners Association (APOMA) would be updated to include the new components of the project before construction of these components began.</p> <p>The distribution of extreme- and high-risk weed species would be mapped as part of the flora monitoring program and the information would be used to determine the need for amendments to the weed management strategy, control activities or management measures.</p>	<p>As discussed previously with reference to net biodiversity gain, the regional weed management strategy represents a long-term, proactive approach to managing weeds in the wider Roxby Downs region. This approach would be utilised in managing risks posed by new areas of disturbance associated with the proposed expansion.</p> <p>Draft EIS Reference: 15.5.11, 24.4.6</p> <p>Supplementary EIS Reference: 16.3</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
<b>Project component</b>	<b>General operation (cont'd)</b>	
Weed management (cont'd)	<p>A series of management measures is proposed to mitigate the spread of weeds, including:</p> <ul style="list-style-type: none"> <li>• liaising with relevant NRM Boards to develop targeted weed management strategies, including coordinated efforts to control high-priority species</li> <li>• ensuring the diligent cleaning of plant, equipment and vehicles before construction work began and after leaving areas infested by declared weeds</li> <li>• identifying areas where weed hygiene measures would be implemented by undertaking searches for declared weeds during the field surveys for the final infrastructure locations</li> <li>• minimising the disturbance caused by construction and operational activities wherever possible</li> <li>• ensuring that vehicles remained on designated tracks to minimise disturbance and weed spread</li> <li>• conducting follow-up surveys 12 months after construction and/or after significant rains to determine the need for weed control</li> <li>• undertaking control activities for declared and environmental species where they occur on lands owned by BHP Billiton.</li> </ul>	
Stakeholder consultation and engagement	<p>BHP Billiton commits to ongoing community consultation with affected parties on the proposed expansion. Interaction with the many stakeholders who have already been consulted as part of the project planning phase would continue throughout the project construction, execution and decommissioning phases, including:</p> <ul style="list-style-type: none"> <li>• the Australian, South Australian, Northern Territory and local governments</li> <li>• local communities</li> <li>• pastoralists and landholders.</li> </ul>	<p>During the development and release of the Draft EIS, an extensive public consultation and engagement program was completed. BHP Billiton would continue to consult with affected communities and stakeholders throughout the ensuing project phases.</p> <p>Draft EIS Reference: 7.4 Supplementary EIS Reference: 7.1</p>
	<p>BHP Billiton would provide support and input into regional environmental management and monitoring activities with regulators and other users and occupiers of Upper Spencer Gulf, to assist in a collective and collaborative approach to managing the marine environment.</p>	<p>BHP Billiton has an established record in providing, facilitating and supporting ecological research in the areas affected by the Olympic Dam operation. It is a founding partner of Arid Recovery, provided resources and researchers to help complete peer-reviewed research into the ecology of the Lake Eyre Basin and continues to actively research environmentally significant ecological communities such as those associated with the mound springs, at the southern boundary of the Great Artesian Basin. In doing so, BHP Billiton has often worked cooperatively with third parties (including academic and government bodies) and made the outcomes of its research publicly available.</p> <p>BHP Billiton would continue this approach in areas potentially affected by the expanded operation, including the Upper Spencer Gulf.</p> <p>Supplementary EIS Reference: 29.1.4, 29.1.9</p>



**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
<b>Project component</b>	<b>General operation (cont'd)</b>	
Closure	<p>The existing Rehabilitation and Closure Plan for the current Olympic Dam operation would be updated to include the expanded components of the proposed expansion after the detailed design phase of the project has been completed.</p> <p>BHP Billiton would continue to consult and engage with relevant government departments and other stakeholders to further develop and refine the closure criteria, including final land uses, rehabilitation, management and ongoing monitoring.</p> <p>The Plan would be reviewed annually and updated if required.</p>	<p>The current Olympic Dam Rehabilitation and Closure Plan is reviewed annually, with a major review every three years.</p> <p>Rehabilitation and Closure Plan activities are reported to the Minister for Mineral Resources Development in the BHP Billiton Annual Environmental Management and Monitoring Report (EMMR), which is submitted to the South Australian Government for review each year.</p> <p>Draft EIS Reference: 23.3, 23.4.2, 23.8 Supplementary EIS Reference: 28.1.1, 28.1.2</p>
Closure of the open pit	<p>Erosion control measures would be installed to mitigate the risk of pit wall instability post-closure.</p>	<p>Weathered layers of sand and earth that may be susceptible to erosion by run-off occur within the top 10–40 m of the pit wall, after which hard (i.e. competent) rock dominates. Mitigation measures to control erosion may include constructing a bund around the pit edge to divert stormwater run-off away from the open pit and installing erosion control banks in the weathered layers.</p> <p>Draft EIS Reference: 23.8.1 Supplementary EIS Reference: 28.1.2</p>
<b>Project component</b>	<b>Mining</b>	
Dust from mining operations	<p>The National Environment Protection (Ambient Air Quality) Measure (NEPM) ground level dust concentration (applied to operational dust contributions at Roxby Downs and Hiltaba Village) would be met through design and operational management controls of mining operations at Olympic Dam.</p>	<p>The Olympic Dam expansion project is expected to move more than 400 Mtpa of mine rock and ore as part of the new open pit mining operation. Loading, transport and unloading of this material would generate fugitive particulate emissions.</p> <p>Sensitive dust receptors include residents in Roxby Downs, Hiltaba Village and to a lesser extent communities living near service infrastructure and associated corridors during the construction period. Dust modelling assessment suggests that dust criteria would be met under most circumstances at key receptors. Two possible exceptions include Roxby Downs and Hiltaba Village during adverse wind and temperature inversion conditions. The modelling also suggests that modifying operational activities during these periods enables the dust criteria at sensitive receptors to be met.</p> <p>Draft EIS Reference: 13.3.4</p>
	<p>Good-quality haul roads would be constructed and maintained with regular application of saline water and/or the application of suitable dust suppressants.</p>	<p>Experience in other open pit mines and the EIS modelling have shown that haul roads can be significant sources of fugitive dust. Designing, constructing and maintaining good-quality haul roads by measures such as compacting surfaces where necessary, regular grading and clearing, repairing potholes as soon as possible, and using appropriate dust suppressants, combined with operator training, can be effective in controlling fugitive dust.</p> <p>Draft EIS Reference: 13.3.4</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
<b>Project component</b>	<b>Mining (cont'd)</b>	
Dust from mining operations (cont'd)	A real-time dust and meteorological monitoring system would be installed at Olympic Dam to predict dust concentrations which would provide information for operational control of dust.	The ability to predict the conditions that may cause dust concentrations to exceed limits is essential in managing the open pit operation. Installing the monitoring system would provide information that helps mine management control emissions. Draft EIS Reference: 13.3.5
Impacts of seepage from the rock storage facility (RSF)	Potentially reactive mine rock would be enclosed within the RSF.	A proportion of the mined rock contains low-grade, non-economic levels of uranium and copper, or is potentially acid-generating, and this is known as 'reactive rock'. The volume of potentially reactive mine rock is proportionally small when compared to the total volumes of mine rock in the RSF. An effective method of controlling this material is by enclosing it within the non-reactive or neutralising rock structure. Appropriate planning and operations make this selective placement of reactive rock a straightforward process. Draft EIS Reference: 12.5.2 Supplementary EIS Reference: 12.4
Impacts of the expanded operation on Arid Recovery	Arid Recovery would continue to be supported by: <ul style="list-style-type: none"> <li>maintaining a distance of 500 m between the RSF and Arid Recovery</li> <li>ongoing financial support</li> <li>scientific, managerial and professional support by BHP Billiton.</li> </ul>	As a founding member and primary financial supporter of Arid Recovery, Olympic Dam and BHP Billiton recognise the importance of this iconic research and conservation initiative. These commitments ensure BHP Billiton's continued support of Arid Recovery. Draft EIS Reference: 15.3.10
	BHP Billiton commits, in principle, to supporting relevant research, including establishing a regional hub for natural resources and environmental management and research. The cost of the commitment is estimated to be approx. \$1.2m over 3 years.	BHP Billiton actively promotes the positive outcomes achieved by Arid Recovery and is the largest financial contributor. This initiative provides a best practice example of voluntary corporate funding contributing to environmental research. Supplementary EIS Reference: 32.2.1
Export of nuclear material	BHP Billiton is committed to full and transparent compliance with Australian law, specifically Australia's uranium export regulations, international law and Chinese law as applicable.	In Australia, the Australian, state and territory governments regulate BHP Billiton for its management, safe handling, sale and export of copper concentrate containing uranium and uranium oxide concentrate. Any operation in China would be subject to Chinese law. Draft EIS Reference: Section E3 of Appendix E Supplementary EIS Reference: 27.9.2
	In developing plans to manage uranium contained in copper ore concentrate, BHP Billiton has taken into account that a new bilateral agreement would need to be in place before concentrate exports could proceed. BHP Billiton commits to third party auditing of the Australian Obligated Nuclear Material (AONM) accounts in China.	Before negotiating and ratifying a bilateral safeguards agreement, the Australian Government considers a full range of issues, including strategic issues. Since 2007, the Australian Government has granted licences to export uranium oxide concentrate to China. Draft EIS Reference: Section E3 of Appendix E Supplementary EIS Reference: 27.5.1

**Table 2.1 Commitments (cont'd)**

<b>Issue</b>	<b>Commitment</b>	<b>Context</b>
<b>Project component</b>	<b>Mining (cont'd)</b>	
Export of nuclear material (cont'd)	<p>BHP Billiton commits to following the Uranium Stewardship Principles (developed for the nuclear industry in conjunction with partners, stakeholders and clients) with the goal of reducing, as far as practicable, any residual risk for harm to people and the environment from the nuclear industry, including to:</p> <ul style="list-style-type: none"> <li>• support the safe and peaceful use of nuclear technology</li> <li>• act responsibly in the areas that BHP Billiton manages and controls</li> <li>• operate ethically with sound corporate governance</li> <li>• uphold and promote fundamental human rights</li> <li>• contribute to social and economic development of the regions in which BHP Billiton operates</li> <li>• provide responsible sourcing, use and disposition of uranium oxide and its by-products</li> <li>• encourage best practice and responsible behaviour throughout the nuclear fuel cycle</li> <li>• improve continually in all areas of BHP Billiton performance</li> <li>• communicate regularly on progress</li> <li>• review and update as necessary.</li> </ul>	<p>Applied to the export of concentrate, the Uranium Stewardship Program and the adoption of the Principles mean BHP Billiton has a direct responsibility in the areas and functions that it controls and operates, and a shared concern in those areas and functions where others have a direct responsibility.</p> <p>Draft EIS Reference: Section E3 of Appendix E Supplementary EIS Reference: 27.9.1</p>
<b>Project component</b>	<b>Processing plant</b>	
Sulphur dioxide (SO <sub>2</sub> ) emissions	<p>Real-time monitoring of sulphur dioxide in the smelter would be used to assess the continuing adequacy and effectiveness of the ventilation system.</p>	<p>Sulphur dioxide is generated during the smelting process and can be harmful to personal health. The smelter has been designed to minimise emissions into the workplace and, to assess the effectiveness of this design, real-time monitoring of sulphur dioxide provides the best indicator of performance.</p> <p>Draft EIS Reference: 22.6.3</p>
<b>Project component</b>	<b>Tailings storage facility (TSF)</b>	
Impacts of seepage from existing and future TSF	<p>The design of the TSF incorporates controls to minimise seepage including:</p> <ul style="list-style-type: none"> <li>• increasing the volume of liquor recycled from the TSF</li> <li>• constructing larger cells with greater evaporation capacity</li> <li>• collecting liquor through a central decant arrangement</li> <li>• installing a liner beneath the central decant systems</li> <li>• recycling water from the mound beneath the TSF.</li> </ul>	<p>Tailings liquor is acidic, slightly radioactive and contains heavy metals. The most effective method of managing tailings liquor is through evaporation, and the TSF is designed to contain the solids, maximise evaporation and minimise seepage.</p> <p>The physical process of seepage through the underlying substrate significantly reduces acidity, radioactivity and metal concentrations through neutralisation of the liquor.</p> <p>Draft EIS Reference: 5.5.6</p>
Closure Plan for the TSF	<p>Tailings cells would be capped when they reached their target design height, and when it was safe for vehicles to access the TSF surface.</p>	<p>The TSF would be capped with appropriate material at the end of its operating life to reduce the long-term release of radon and dust.</p> <p>Draft EIS Reference: 23.8.4</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
<b>Project component</b>	<b>Tailings storage facility (TSF) (cont'd)</b>	
Post-closure radiation exposure from the TSF	BHP Billiton commits to undertaking a formal radiation risk assessment (called a FEP study) for the TSF.	A FEP (Features, Events and Processes) study is a structured radiation risk assessment usually reserved for high-level radioactive waste repositories. Currently FEPs do not exist for tailings systems.  Supplementary EIS Reference: 26.5.2
TSF and wildlife access	<p>The proposed expansion of the TSF would minimise impacts on birds, by:</p> <ul style="list-style-type: none"> <li>• not building additional evaporation ponds</li> <li>• netting (or similar) the central decant pond of each expansion TSF cell</li> <li>• covering the balancing ponds with netting or similar.</li> </ul> <p>BHP Billiton is committed to ongoing avian research to inform management measures and controls, improve monitoring methods, to assess environmental performance, and to enable continual improvement. Research into bird deterrents would continue, including:</p> <ul style="list-style-type: none"> <li>• investigation into a more advanced radar</li> <li>• trials of sound identification software for use as part of an on-demand deterrent system</li> <li>• collaborative research with Deakin University and the Department of Environment and Heritage into aversive stimuli and bird movements.</li> </ul>	<p>Open waterbodies, including sewage ponds, process water storage, acidic liquor ponds and wet tailings beach environments at the existing operation attract fauna, particularly waterbirds. Large numbers of these species are regularly recorded utilising good-quality water storages, such as process water and sewage ponds in the vicinity of the operation.</p> <p>Acidic liquor ponds and wet tailings beach environments in the TSF offer poor-quality habitat for fauna, but a number of animals still attempt to utilise the facilities as they are attracted to the prospect of suitable habitat. Numerous mitigation measures and deterrent devices have been trialled and implemented at the existing Olympic Dam operations to reduce its attractiveness to birds. These measures have met with varying success, and the proposed expansion offers an opportunity to reduce the area of free liquor by improved design.</p> <p>Ongoing research and development in this area would continue.</p> <p>Draft EIS Reference: 15.4.2</p> <p>Preventing and deterring visits by large flocks of birds remains a focus of management efforts for the Olympic Dam Tailings Retention System.</p> <p>Research into bird deterrents complements specific design modifications adopted for the proposed expansion to mitigate impacts to visiting birds (refer previous commitments above).</p> <p>Draft EIS Reference: 15.5.7</p> <p>Supplementary EIS Reference: 16.5, 29.5</p>
<b>Project component</b>	<b>Water and gas supply pipelines</b>	
Impacts to fauna from construction of linear infrastructure	A Trench Management Plan would be developed to address the collection and safe removal of animals that fell into the temporary open trenches that would be required for the installation of the water and gas supply pipelines.	BHP Billiton has considerable experience in managing impacts to fauna from open trenches. BHP Billiton was commended on its environmental management of open trenches during the construction of the water pipeline from Borefield B in 1996, prior to the last major expansion of Olympic Dam in 1997. Lessons learnt from that project and other more recent pipeline construction projects were included in the management measures described in Section 15.5.11 of the Draft EIS. These measures that would be included in the proposed Trench Management Plan.  Draft EIS Reference: 15.5.11 Supplementary EIS Reference: 29.3

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
<b>Project component</b>	<b>Transport and logistics</b>	
Transport and handling of concentrate	<p>BHP Billiton would implement strict radiation controls at the Port of Darwin through implementing design features and proven management systems, similar to the systems that already exist at Olympic Dam.</p> <p>A 'closed system' would be used to transport, store and convey concentrate from Olympic Dam to the ship's hold at the Port of Darwin. Specifically:</p> <ul style="list-style-type: none"> <li>• appropriate dedicated equipment would be constructed and used</li> <li>• rail wagons would be effectively sealed with suitable covers fitted in such a manner that concentrate would not escape during routine transport</li> <li>• the concentrate storage system and conveying system would have a negatively pressured extraction ventilation system with automatic unloading and rail wagon wash systems</li> <li>• the water used to wash the outside of the rail wagons would be collected and reused. Solids that settled from this water would be placed on the concentrate stockpile and, when required, water would be returned to Olympic Dam for disposal</li> </ul> <ul style="list-style-type: none"> <li>• develop and implement an Emergency Response Plan, and a Transport Plan for uranium oxide and for copper concentrate</li> <li>• train and support SA and NT emergency services to ensure ongoing capability to address, if required, a rail incident between Olympic Dam and the Port of Darwin in accordance with industry best practice</li> <li>• work with emergency services in Alice Springs to develop ways to minimise delays to emergency vehicles when responding to an emergency at times when a concentrate train was passing</li> <li>• ensure that appropriate clean-up and emergency response equipment accompanied each train carrying concentrate to the Port of Darwin</li> <li>• ensure that any area affected by a spill was cordoned off and secured.</li> </ul>	<p>Bulk quantities of concentrate would be transported to international customers by rail, road and sea. The levels of radioactivity are low (containing up to 2,000 ppm uranium), but are sufficient for the material to be defined as 'radioactive', requiring special precautions to be taken.</p> <p>Olympic Dam has been producing and exporting uranium oxide since 1988 under strictly controlled conditions without incident. A large amount of expertise has been accumulated, resulting in an ongoing safe and environmentally competent operation.</p> <p>Draft EIS Reference: 5.9.5 Supplementary EIS Reference: 26.1.1</p> <p>Emergency response planning to manage the transport of copper concentrate would be modelled on BHP Billiton's existing emergency response plans for incidents associated with transporting uranium oxide. The plans would build on the successful transport of uranium oxide from Olympic Dam to Port Adelaide and the Port of Darwin by BHP Billiton. In more than 20 years of operation, there has been no incident involving spills of uranium oxide from Olympic Dam.</p> <p>Draft emergency response and traffic plans that address risks identified with transporting and handling concentrate have been included in the Supplementary EIS. These plans would form the basis of emergency response planning with relevant agencies.</p> <p>Draft EIS Reference: 22.6.10 Supplementary EIS Reference: 25.1.1</p>
Concentrate storage facility	<p>BHP Billiton commits to ongoing consultation with the Northern Territory Government, the Darwin Port Authority and other relevant authorities in regard to the planning, operation and security arrangements of the proposed East Arm concentrate storage facility.</p>	<p>This commitment builds on the consultation and engagement program completed for the Draft EIS, where BHP Billiton contributed to discussions about the new East Arm master plan with the consultants who were preparing the plan on behalf of the Darwin Port Authority. In those discussions, BHP Billiton outlined its emerging requirements for the proposed transport solution at the East Arm facility to ensure the plan considered the port's capabilities to meet future cargo demand.</p> <p>BHP Billiton will continue to maintain a close working relationship with the Darwin Port Authority to integrate detailed planning for the expanded facilities.</p> <p>Supplementary EIS Reference: 20.2</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
<b>Project component</b>	<b>Transport and logistics</b>	
Impacts on safety from increased transport and road use	<p>BHP Billiton would provide for the safe and efficient movement of materials and goods in and out of Olympic Dam through:</p> <ul style="list-style-type: none"> <li>• installing a rail/road intermodal facility at Pimba and constructing a rail line between Pimba and Olympic Dam</li> <li>• installing a landing facility south of Port Augusta to handle pre-assemblies</li> <li>• constructing a road-over-rail overpass on Olympic Way</li> <li>• installing up to 15 passing bays along the Stuart Highway and Olympic Way that would enable traffic to pass safely.</li> </ul> <ul style="list-style-type: none"> <li>• relocating the access corridor from the landing facility to the pre-assembly yard nearer to the Port Augusta airport and on a revised route around the Eureka estate to minimise impacts in line with government and community requests</li> <li>• repairing damage to Shack and Caroona roads that may occur as a direct result of additional BHP Billiton traffic on these roads</li> <li>• upgrading the access corridor crossing points at Shack Road, Caroona Road and the Eyre Highway</li> <li>• collaborating with the Port Augusta Council, the Department of Transport, Energy and Infrastructure (DTEI) and the Australian Rail Track Corporation to manage the impacts of increased project-related rail traffic through the City of Port Augusta</li> <li>• not transporting pre-assembled modules on the public road network between the landing facility and the pre-assembly yard at Port Augusta West.</li> </ul>	<p>The installation of the Pimba intermodal facility and the rail spur would maximise the amount of freight transported by rail for the construction and operational phases of the proposed expansion. Over-dimensional loads would by necessity travel by road, requiring specific additional safety precautions. BHP Billiton recognises the potential inconvenience and safety implications and would continue to work with the South Australian Government to refine its draft traffic management plan.</p> <p>Draft EIS Reference: 5.9.2, 22.6.9</p> <p>Commitments associated with the access corridor from the landing facility are aimed at reducing potential impacts on current and future residential developments, ensuring that existing road surfaces are not damaged by Olympic Dam-related traffic and/or are maintained appropriately if damage does occur, and that road traffic can continue to move safely through crossing locations at the designated speed limit.</p> <p>Draft EIS Reference: 19.5.6, 22.6.9 Supplementary EIS Reference: 6.1.3, 22.1</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
<b>Project component</b>	<b>Transport and logistics (cont'd)</b>	
Impacts on safety from increased transport and road use (cont'd)	<p>To provide for the safe movement of traffic between, and within, Roxby Downs, Hiltaba Village and Olympic Dam, BHP Billiton would:</p> <ul style="list-style-type: none"> <li>• construct a new four-lane, median-separated carriageway from the northern intersection of the heavy vehicle bypass and Olympic Way to a new main gate at Olympic Dam</li> <li>• construct new roads, intersections and engineered traffic controls, such as roundabouts in Roxby Downs</li> <li>• provide a fleet of buses for travel between the construction site and accommodation areas.</li> <li>• construct an additional road on the Special Mining Lease and between Hiltaba Village and the mine site to isolate this traffic from the public road network</li> <li>• work in partnership with South Australian Government agencies and the Roxby Downs Council to coordinate and align road safety initiatives that can be applied to all road users.</li> </ul>	<p>The expansion project would result in an increase in the short-, medium- and long-term population of Roxby Downs, Olympic Village and Hiltaba Village with a corresponding increase in traffic. BHP Billiton would work with local government and the South Australian Government to develop measures to manage impacts.</p> <p>The provision of a fleet of buses to transport the construction workforce would reduce the need for construction workers to have personal vehicles.</p> <p>Draft EIS Reference: 19.5.6, 22.6.9</p> <p>To further improve transport safety, by isolating where practicable traffic generated as a result of the proposed expansion from the general travelling public, a new dedicated access road between Hiltaba Village and the mine site is proposed in the Supplementary EIS (see Section 1.4 for details).</p> <p>As part of the Draft Traffic Management Plan, (included as Appendix K1 of the Supplementary EIS), BHP Billiton would develop suitable traffic safety plans and procedures around key areas of safe road use, safe speeds and safe vehicles for expansion-related traffic movements on the public network. However, as BHP Billiton has no authority over the road network, BHP Billiton would work with other agencies in delivering its traffic safety plans.</p> <p>Supplementary EIS Reference: 22.2</p>
Impacts on safety from increased transport and road use	<p>Inconvenience to the general public and the safe and efficient transport of over-dimensional loads and pre-assemblies between Port Augusta and Olympic Dam would be managed by:</p> <ul style="list-style-type: none"> <li>• notification of road usage and interruptions through regular community announcements</li> <li>• aiming to transport over-dimensional loads at times that are out of peak periods</li> <li>• applying a goal of ensuring that the maximum time that the general public may be disrupted by individual road closure events was 45 minutes.</li> <li>• developing a traffic management plan in consultation with DTEI to ensure that traffic-related impacts on residents from the movement of over-dimensional loads during construction and operation of off-site infrastructure were minimised, and that people were not unduly inconvenienced</li> <li>• assisting interested parties in a study aimed at determining the feasibility of a bus service between Andamooka and Olympic Dam</li> <li>• supporting any study that may be initiated by the State Government into the feasibility of a public transport system for Roxby Downs.</li> </ul>	<p>Large over-dimensional loads would be transported to the operation during the construction phase and there would be delays for road users on occasions.</p> <p>BHP Billiton would aim to keep these impacts to a minimum and would implement a range of measures in conjunction with the state authorities.</p> <p>Similar measures were successfully implemented during previous expansions at Olympic Dam.</p> <p>Draft EIS Reference: 19.5.6</p> <p>Submissions on the Draft EIS questioned whether BHP Billiton would establish a bus service between Andamooka and Olympic Dam, and a public transport system within Roxby Downs. While these are outside the direct responsibility of BHP Billiton, support and assistance in determining the feasibility of such transport systems would be provided to the State Government and interested third parties.</p> <p>Supplementary EIS Reference: 21.7.3</p>

**Table 2.1 Commitments (cont'd)**

<b>Issue</b>	<b>Commitment</b>	<b>Context</b>
<b>Project component</b>	<b>Transport and logistics (cont'd)</b>	
Landing facility construction and operation	<p>A program of ongoing consultation with stakeholders would be undertaken to address community issues associated with the landing facility. This consultation would continue throughout the project construction, execution and decommissioning phases.</p> <p>BHP Billiton does not propose to use the landing facility for any activities other than those described in the Draft EIS, nor does it propose to allow third parties to use this facility.</p>	<p>This commitment is consistent with the overall commitment to continue consultation with interested stakeholders throughout the project construction, execution and decommissioning phases.</p> <p>Supplementary EIS Reference: 7.3</p> <p>A submission to the Draft EIS asked whether the proposed landing facility would be used in the future for activities other than those described in the Draft EIS.</p> <p>Supplementary EIS Reference: 5.7.2, 6.1.1</p>
Impacts to safety from landing facility construction and operation	<p>Specific management controls would be implemented to ensure the risk of vessel collisions during construction was controlled.</p> <p>A maritime safety management plan would be implemented for operations and cover:</p> <ul style="list-style-type: none"> <li>• emergency response</li> <li>• controls on vessel movements</li> <li>• community liaison</li> <li>• safety and other issues related to shipping.</li> </ul>	<p>BHP Billiton instigated an independent maritime safety review of Upper Spencer Gulf to address the range of maritime safety-related issues, including an independent risk assessment. The review, conducted in 2010, is provided in Appendix L2 of the Supplementary EIS.</p> <p>The safety review concluded that the safety impact and risk issues could be controlled with appropriate management measures and by adhering to relevant regulations.</p> <p>Supplementary EIS Reference: 25.1.2p</p>
Impacts due to noise from the Pimba intermodal facility	<p>BHP Billiton commits to monitoring noise when the facility was operational and implement mitigation measures at the facility as necessary to meet the noise criteria at existing Pimba residences.</p>	<p>Conservative noise modelling for the proposed operations at the Pimba intermodal facility undertaken for the Draft EIS indicated that the noise criteria according to the Environment Protection (Noise) Policy 2007 were met at a distance of 1.1 km. In the event that monitoring showed that the applicable noise limits at existing Pimba residences were exceeded, measures such as earth mounds or similar would be investigated and installed at the proposed facility to ensure compliance.</p> <p>Supplementary EIS Reference: 15.6</p>
<b>Project Component</b>	<b>Community and workforce</b>	
Crime and anti-social behaviour	<p>To reduce the likelihood of adverse impacts associated with the construction workforce, BHP Billiton plans to construct separate, high-quality accommodation (i.e. Hiltaba Village) with on-site entertainment, recreation and sports facilities.</p>	<p>An appropriately designed modern construction village would accommodate construction workers. There would be on-site entertainment and recreation facilities to minimise the use of existing services in Roxby Downs.</p> <p>In addition, the majority of construction workers would be engaged on a fly-in/fly-out arrangement and, since the village would be separated from Roxby Downs and Andamooka, travel to these locations would be inconvenient.</p> <p>Draft EIS Reference: 19.5.2</p>



**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
Project Component	Community and workforce (cont'd)	
<p>Crime and anti-social behaviour (cont'd)</p>	<p>BHP Billiton would implement a range of measures, in conjunction with local service providers, to address concerns relating to crime and anti-social behaviour resulting from the expansion.</p> <p>Examples of initiatives that BHP Billiton would implement include:</p> <ul style="list-style-type: none"> <li>• developing a code of behaviour for Hiltaba Village residents</li> <li>• developing, in collaboration with the police, a proactive community policing-style security and surveillance presence in Hiltaba Village to prevent and respond to incidents</li> <li>• continuing to implement the fitness-for-work program, including routine drug and alcohol monitoring of workers</li> <li>• participation in the development of a plan by the South Australian Government to address social services and infrastructure</li> <li>• establishing complaints procedures whereby reported incidents of unacceptable behaviour would be investigated</li> <li>• collaboration with government and non-government organisations to maintain health services (including drug and alcohol services, domestic violence and anger management programs) in Roxby Downs to a reasonable standard</li> <li>• continuing to support the provision of a youth services officer and youth activities in conjunction with the Roxby Downs Council and the South Australian Government.</li> </ul>	<p>Crime and anti-social behaviour has been identified by the residents of Roxby Downs and service providers as an issue of concern, requiring proactive community-wide measures to manage.</p> <p>The Draft EIS and Supplementary EIS provide commitments for BHP Billiton to work proactively with local authorities and communities in Roxby Downs and Andamooka to develop community safety and awareness programs to respond to community concerns about women's safety, alcohol management, the risk of prostitution, a safe house and/or emergency accommodation, and unsafe behaviour by young people.</p> <p>Draft EIS Reference: 19.5.2, 19.5.4</p>
	<p>The Supplementary EIS provides a commitment to the following additional measures:</p> <ul style="list-style-type: none"> <li>• working with local authorities in Roxby Downs to achieve practical outcomes relating to a safe house and/or emergency accommodation</li> <li>• working with the government and the appropriate organisations to develop a code of practice for alcohol management in Roxby Downs and Andamooka for BHP Billiton workers</li> <li>• working with the Premier's Council for Women, to develop ways for ensuring women's safety during the expansion's construction period</li> <li>• participating in a workshop or study on the local impacts of prostitution, if this was organised by the South Australian Police or other key stakeholders</li> <li>• working with the Roxby Downs Family and Youth Forum, the Roxby Downs Council and the South Australian Government to develop a youth strategy, with the possibility of extending the programs to Andamooka.</li> </ul>	<p>In recognition of concerns raised in submissions to the Draft EIS, additional measures to address the potential for crime and anti-social behaviour have been included in the Supplementary EIS.</p> <p>Supplementary EIS Reference: 21.5.1, 21.5.2</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
Project Component	Community and workforce (cont'd)	
Housing affordability in Roxby Downs	<p>BHP Billiton would work collaboratively with the South Australian Government to develop and implement a strategy to provide an appropriate diversity of accommodation to meet the socio-economic requirements of the demographic mix of the Roxby Downs community as it expanded.</p> <p>In collaboration with the urban land and housing development industry, BHP Billiton would meet its obligation pursuant to Clause 21 (1) of the <i>Roxby Downs Indenture (Ratification) Act 1982</i> with the Government of South Australia to 'use (its) best endeavours to assist in the provision of the housing needs of such other persons and their dependants who provide services in the town that are ancillary and necessary to the needs of (mining sector) employees and their dependants'.</p> <p>BHP Billiton would develop and maintain a schedule to deliver housing to meet the expected increase in demand from the mine and non-mine workforce. It would also continue to work with the urban land and housing development industry to ensure adequate industry resources were available to meet accommodation requirements, and to influence the cost of land, housing and ongoing operational costs in Roxby Downs.</p>	<p>Roxby Downs is an open community, with its own unique housing supply and demand profile. When considering statewide or national goals in housing affordability, it is important that the local conditions are considered, as those goals may not be directly applicable.</p> <p>The housing profile of Roxby Downs includes the needs of the services and non-mining sector as well as BHP Billiton residential workers and families, and this would be regularly reviewed and addressed as required.</p> <p>Draft EIS Reference: 19.5.3</p> <p>BHP Billiton recognises that land and housing prices are influenced by the balance of supply and demand and development costs.</p> <p>A number of strategies would be used to address the forecast early demand for accommodation, in order to moderate demand during the initial growth period and contribute to maintaining stability in house prices and affordability. These strategies include:</p> <ul style="list-style-type: none"> <li>• the initial short-term use of Hiltaba Village for new pioneering operation workers, on a commute basis, until housing became available</li> <li>• the early development and use of the transitional housing village for accompanied workers and their dependants as interim accommodation pending permanent housing becoming available</li> <li>• the early development of a new workers village for permanent long distance commute (LDC) workers in Roxby Downs.</li> </ul> <p>Supplementary EIS Reference: 21.6</p>
Impacts of the expanded operation on Olympic Village	The existing accommodation area of Olympic Village would be relocated as part of the proposed expansion.	<p>Olympic Village is located adjacent to the proposed footprint of the open pit mine and the RSF. As the operation expanded, there would be a need to relocate the village, although the exact timing of this move is yet to be finalised.</p> <p>Draft EIS Reference: 5.10.2</p>
Roxby Downs Draft Master Plan	Once the Roxby Downs Master Plan was finalised by the South Australian Government, BHP Billiton would facilitate its implementation in collaboration with the Government, the Roxby Downs Council, developers and community organisations.	<p>BHP Billiton is a stakeholder in the development and implementation of the Roxby Downs Master Plan.</p> <p>Recognising that the workforce and the community are an important part of the operation, consideration and management of social interactions are necessary for community and workforce safety and well-being.</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
Project Component	Community and workforce (cont'd)	
Roxby Downs Draft Master Plan (cont'd)		<p>The scale of the expansion is likely to increase pressure on workforce resources, labour supply and demand and availability of skilled personnel, and make it imperative to ensure there are adequate services, housing, recreational opportunities, further education and training opportunities, cultural needs and support for an increased population (and potentially an increased diversity in cultural background) during construction and operation.</p> <p>It is important that appropriate strategies are implemented to help meet the needs of the community and workforce, where BHP Billiton has the authority and capacity to do so.</p> <p>Draft EIS Reference: 19.5.3</p>
Stormwater capture and wastewater reuse in Roxby Downs	<p>Stormwater and wastewater (including grey water) would be collected, treated and reused where practicable, which in turn would conserve potable water.</p>	<p>As outlined in Section 11.5.1 of the Draft EIS and the Roxby Downs Draft Master Plan (refer Appendix F4 of the Draft EIS), new drainage networks and stormwater retention basins would be built to capture stormwater flows for treatment and reuse where appropriate.</p> <p>The Roxby Downs Draft Master Plan specifies that the design of the expanded town would be engineered to enable wastewater to be responsibly stored and reused wherever practicable, taking into consideration allowance for the population of Hiltaba Village.</p> <p>Draft EIS Reference: 11.5.1</p> <p>Supplementary EIS Reference: 11.1.1</p>
Ongoing involvement of Aboriginal communities	<p>BHP Billiton commits to its obligations under the Olympic Dam Agreement, which include:</p> <ul style="list-style-type: none"> <li>• establishing a trust to manage payments by BHP Billiton and to support community and business development initiatives for Aboriginal communities in northern South Australia (as defined in the Agreement)</li> <li>• implementing the Heritage Management Protocol to manage and protect the Aboriginal ethnographic and archaeological values of the region.</li> </ul>	<p>BHP Billiton has entered into an agreement with the Kokatha, Barngarla and Kuyani Aboriginal groups, known as the Olympic Dam Agreement. The Olympic Dam Agreement recognises the rights of Aboriginal people and the importance of the land to them. It includes a Heritage Management Protocol for the management and protection of Aboriginal heritage (refer Section 17.5.2 of the Draft EIS for details).</p> <p>The Agreement is a broad package of benefits, including:</p> <ul style="list-style-type: none"> <li>• processes for managing the impacts of the expanded project on Aboriginal cultural heritage sites</li> <li>• ongoing Aboriginal cultural heritage protection and management</li> <li>• payments by BHP Billiton arising from the expanded project over the remaining life of the Olympic Dam mine for the benefit of, and for Aboriginal people living in, the relevant region</li> <li>• a trust for administering those benefits</li> <li>• Aboriginal employment and training initiatives</li> <li>• cross-cultural awareness training for BHP Billiton employees and contractors.</li> </ul> <p>Draft EIS Reference: 17.5.2</p> <p>Supplementary EIS Reference: 18.2</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
Project Component	Community and workforce (cont'd)	
Ongoing monitoring of social impacts	<p>BHP Billiton would develop and implement, in collaboration with government and other stakeholders, a Social Management Plan. This plan would aim to monitor the impacts of the proposed expansion on Roxby Downs and relevant communities in the northern region and identify areas for action.</p>	<p>BHP Billiton recognises the potential impacts that the size and extent of the expansion proposal may have on the community of Roxby Downs and other nearby communities. A multi-stakeholder social management plan would be implemented to monitor and respond to social issues as they arose.</p> <p>Draft EIS Reference: 19.5.7</p>
Ensuring community cohesion between the construction workforce and residents	<p>As part of the Social Management Plan, BHP Billiton would promote social and community cohesion within Hiltaba Village and Roxby Downs and aim to proactively manage the interactions and relationships between residents and the construction workforce to deliver positive and sustainable social and economic outcomes.</p>	<p>BHP Billiton recognises that Hiltaba Village is a critical part of the proposed project, and its location, amenities, management and relationship with Roxby Downs will be fundamental to securing, managing and retaining the required workforce for the project.</p> <p>Supplementary EIS Reference: 21.5.3, 21.8</p>
Promotion of local businesses	<p>BHP Billiton would undertake activities to enhance local business opportunities, including:</p> <ul style="list-style-type: none"> <li>• continuing to convene the Contractor Framework Implementation Team – while the focus of this group is on BHP Billiton’s Health, Safety, Environment and Community (HSEC) Standards at Olympic Dam, it also provides a forum for communication and engagement with contract companies</li> <li>• conducting supply forums (locally and elsewhere in South Australia) to provide information on current and future business opportunities, tendering processes and pre-qualifications of businesses</li> <li>• reinstating a web address for potential suppliers to register and express interest in tender packages for the project</li> <li>• re-establishing an online project supplier database, in conjunction with the Industry Capability Network South Australia, to enable potential suppliers to register their interest in the project</li> <li>• continuing to fund the Olympic Dam Indigenous Participation Program to develop the capacity of Indigenous companies and contractors to supply goods and services to Olympic Dam</li> <li>• working with government, regional economic development boards, and education and training providers to support capacity building, meet skills requirements, and link existing or potential suppliers to improve local competition</li> <li>• participating in the Roxby Downs Business Forum, if it was re-formed by local businesses</li> <li>• giving consideration to the South Australian Government’s Industry Participation Policy to give local businesses a full, fair and reasonable opportunity to be considered for work in the expansion of Olympic Dam.</li> </ul>	<p>The proposed expansion of Olympic Dam is expected to provide substantial direct and indirect business opportunities for local, regional and statewide businesses. BHP Billiton would continue to work with government, suppliers, and other stakeholders to support local business opportunities and to enable local, regional or state suppliers to fulfil BHP Billiton’s requirements and to maximise their participation in the project.</p> <p>Supplementary EIS Reference: 21.3</p>

**Table 2.1 Commitments (cont'd)**

Issue	Commitment	Context
<b>Project Component</b>	<b>Community and workforce (cont'd)</b>	
Impacts of the expanded operation on Olympic Dam Village	The existing heavy industrial area at Olympic Dam Village would be relocated as part of the proposed expansion.	Noise, dust and radiation exposure levels at the existing heavy industrial area at Olympic Dam Village would comply with industrial requirements.  The facilities would be relocated when levels became unacceptable or when the area was needed for the rock storage facility.  Draft EIS Reference: 5.10.2
Impacts of the expanded operation on Andamooka	BHP Billiton recognises Andamooka as an important neighbouring community, and would work with the South Australian Government to manage potential negative risks and social impacts and contribute to sustainable community development.  BHP Billiton would continue to consult, and have regular and ongoing dialogue with, the Andamooka Progress and Opal Miners Association, local residents and other local stakeholders as planning for the proposed expansion progresses.	Since the Draft EIS was released, a specific study was undertaken on the social effects of the Olympic Dam expansion on Andamooka (see Appendix J2 of the Supplementary EIS).  The study noted that while some services are provided in Andamooka, Roxby Downs is the key service centre for the region.  While the South Australian Government, in collaboration with other service providers, has the key responsibility for the administration, planning and provision of services in regional areas, BHP Billiton would collaborate with the Government to address social services and infrastructure. As noted in Section 19.5.7 of the Draft EIS, the proposed Social Management Plan would also cover Andamooka and include indicators for the provision of social services.  In addition, BHP Billiton would continue to provide support to Andamooka as it has previously done.  Draft EIS Reference: 19.5.5  Supplementary EIS Reference: 21.7.4, 21.9.2, Appendix J2

## 2.1 EXTERNAL STAKEHOLDERS

External stakeholder(s) include but are not limited to Members of Parliament (state and federal), general public, federal, state and local government authorities, interest groups such as local community groups etc., and media organisations.

Any enquiries made by external stakeholders must be managed in accordance with the BHP Billiton Uranium Australia External Affairs Policy. This Policy, which seeks to ensure that all enquiries are managed professionally and efficiently, assists BHP Billiton in building and maintaining positive relationships at all times. All incoming enquiries must be directed to the authorised contact (details yet to be inserted).

Statements and media releases to be made on behalf of BHP Billiton would be approved by the authorised contact. BHP Billiton would focus on managing the incident at the site when dealing with external stakeholders.

At the incident site, external stakeholder(s) requiring information relating to the incident would be directed to the Emergency Services and/or their incident Controller.

Incident notifications to regulatory and government agencies/authorities where required under legislation (such as mandatory EPA notification as required under section 83 of the Environment Protection Act 1993) would be done in accordance with existing procedures and protocols implemented by BHP Billiton.

