

# 9 LAND USE

## 9.1 LAND USE

### Issue:

It was suggested that the Draft EIS did not provide an adequate assessment of the options for post-operations land use, particularly in the context of capability or suitability.

**Submissions:** 2 and 318

### Response:

Chapter 23 of the Draft EIS discussed a range of post-operations land use options for Olympic Dam and the off-site infrastructure proposed for the expansion. The approach used identified a series of closure objectives (i.e. for safety, landform stability, groundwater, terrestrial ecology, soil contamination, visual amenity, dust, radiation and rehabilitation) and related performance measures for these objectives, and then determined potential land use options that may achieve these objectives. The potential land use options were derived from conversations with government agencies (that had already been undertaken for the existing operation) and consideration of the post-operation suitability of the land use (e.g. industrial, pastoral, vacant). Table 23.1 of the Draft EIS listed the preferred outcomes for the various aspects and Sections 23.8.1 to 23.8.13 of the Draft EIS listed the post-operations land use options considered appropriate for 13 of the major project components.

These land use options would be included in the Rehabilitation and Closure Plan for the expanded operation and developed further in consultation with government departments and other stakeholders over the life of the operation. This would ensure the best outcomes were achieved for the various sites.

BHP Billiton maintains a Rehabilitation and Closure Plan for the existing operation. This plan is considered industry best practice, and is updated as required. Potential future land uses for currently disturbed areas are included and developed in collaboration with relevant parties. As the existing plan is revised to take account of the proposed infrastructure, BHP Billiton will 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.

The Closure Plan for the expanded Olympic Dam would be updated regularly to incorporate new technologies and methodologies as they arise in order to ensure the approach to closure remains industry best practice.

## 9.2 LAND TENURE

### Issue:

It was suggested that the boundary of the Cultana expansion area shown in the Draft EIS be confirmed with the Department of Defence.

**Submission:** 1

### Response:

The Department of Defence was contacted to confirm the boundary of the proposed expansion area for the Cultana Training Area (CTA), which currently occupies 50,800 ha between Port Augusta and Whyalla. The department advised that although the final boundaries were still to be confirmed, the anticipated extent of the proposed expansion would comprise 159,400 ha, as shown in Figure 9.1 of the Supplementary EIS.

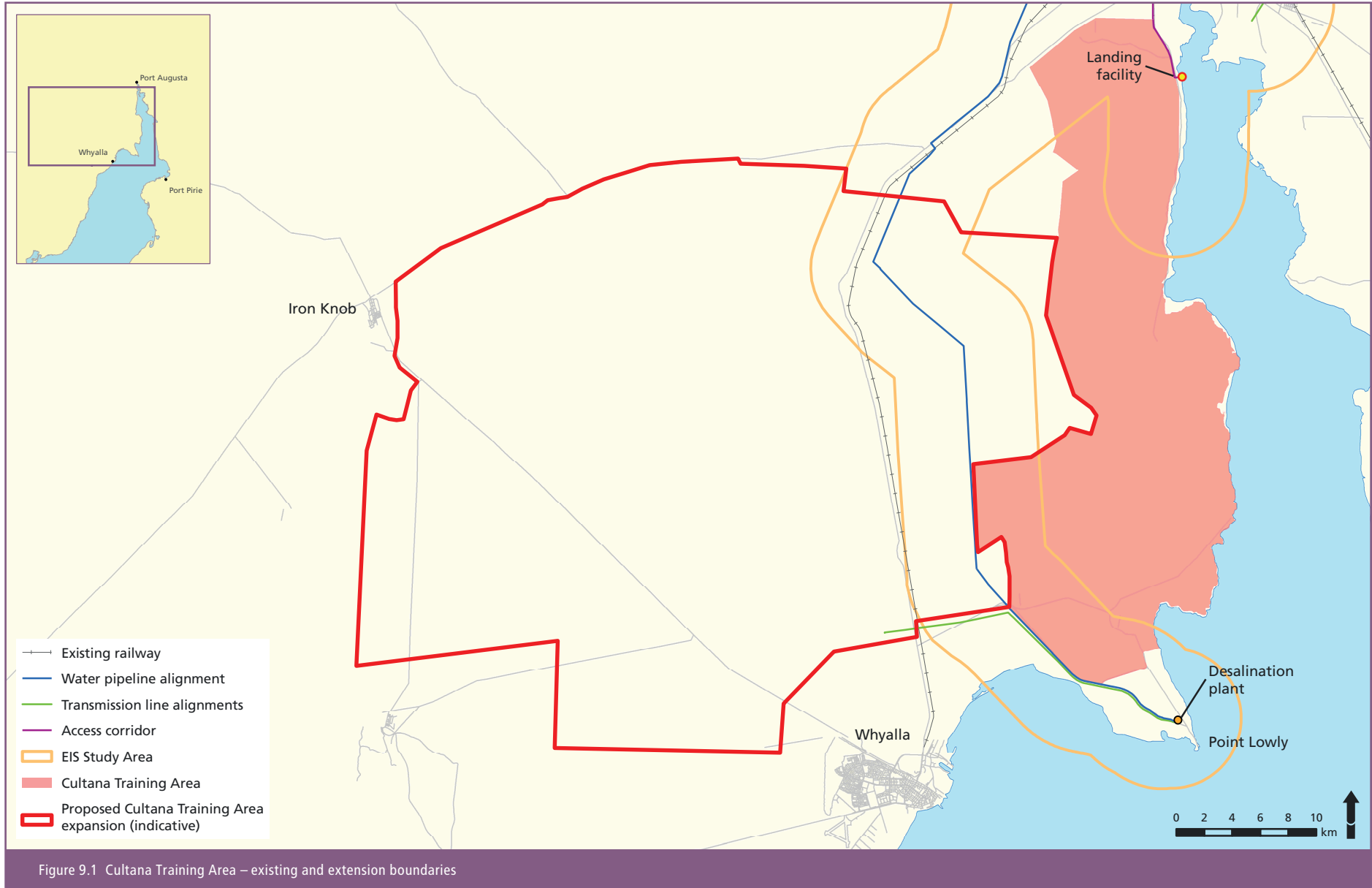


Figure 9.1 Cultana Training Area – existing and extension boundaries

**Issue:**

It was suggested that the access corridor and landing facility are incompatible with the current zoning, in particular with zoning for coastal homes and recreation, and development strategies for the region, including the Port Augusta Development Plan, Port Augusta Structure Plan and Eyre Peninsula Coastal Development Strategy. Concerns were also raised about the potential impact of the proposed development on amenity, future residential development, property prices and ongoing recreational use of the area.

**Submissions:** 211, 212, 213, 226, 263 and 357

**Response:**

The proposed landing facility would require the rezoning of 3 ha of land that is currently highly disturbed and unused. It would be used intermittently over its anticipated seven-year life, with one ship visiting every 11 days. The alignment of the proposed access corridor has been moved further to the west. The realignment of the access corridor (which would also require rezoning), places the corridor closer to existing industrial estates and the Port Augusta airport, further minimising its impacts on proposed residential developments in western Port Augusta (see Figure 5.18 of the Supplementary EIS for the realigned route). BHP Billiton has undertaken extensive consultation with the Port Augusta Council on the requirements for the rezoning of land and these discussions are continuing. It is anticipated that the required rezoning would be reflected in updates to the Development Plan.

The proposed site for the landing facility is land currently zoned Coastal Conservation and Coastal Holiday Settlement under the Port Augusta Council Development Plan (DPLG 2010). The site straddles the boundary of these two zones, and is on the northern stretch of approximately 19 km of coastline currently zoned as Coastal Holiday Settlement. There are approximately 300 coastal homes in this stretch, 12 of which have been assessed as being directly affected by the proposed landing facility (refer Section 14.5.2 of the Draft EIS for details). BHP Billiton has been in contact with the owners of these 12 affected homes and will continue to work with them to address any concerns associated with constructing or operating the landing facility.

The Draft Structure Plan for Port Augusta (DPLG 2008, p.17) identifies the need to focus industrial development in estates on the north-western and southern perimeters close to major road/rail corridors, and includes consideration of BHP Billiton's proposed development in the area. To access these targeted industrial estates north-west of Port Augusta from the proposed landing facility, the proposed alignment for the access corridor traverses land to the east of the airport. The Draft Structure Plan also recognises that rezoning the area in order to increase the density of residential development should proceed only after ensuring that such development would provide appropriate separation distances between existing uses and the access corridor. The alignment proposed in the Draft EIS traverses land occupied by very low density rural living-type allotments. This alignment has been amended so the route of the access corridor is much closer to the existing airport (see Figure 5.18 of the Supplementary EIS). The access corridor would therefore have less impact on residential developments that may occur in the west of Port Augusta.

With regard to the Eyre Peninsula Coastal Development Strategy (Eyre Peninsula Local Government Association 2006), this strategy aims to protect the region's biodiversity. Although this strategy does not cover the Port Augusta Council area, it is acknowledged that the site is located on Eyre Peninsula, and the objectives of the strategy could be extended to include the site. The strategy lists 'Protecting biodiversity and areas of biological significance' as one of nine guiding principles, which also include 'Enhancing economic development opportunities'. The impact of the access corridor and landing facility on the flora and fauna in the area has been assessed as being low to negligible, as outlined in the Draft EIS (refer Chapters 15 and 16). The landing facility would be constructed on land that is currently vacant and already significantly disturbed. The access corridor would be located on land owned by the Department of Defence (the Cultana Training Area) and on cleared and vacant land adjacent to existing roads. The access corridor would occupy approximately 50 ha along its entire length. The corridor would be screened by plantings of locally endemic species. BHP Billiton's commitment to provide Significant Environmental Benefit (SEB) offsets would also help maintain biodiversity in the region (refer Chapter 15 and Appendix N9 of the Draft EIS for details).

Tree planting would also screen the landing facility. An environmental management plan for the construction and operation of the access corridor and landing facility would also be prepared and communicated to residents.

As discussed in Section 19.5.6 of the Draft EIS, landholders residing close to the proposed landing facility, access corridor and pre-assembly yard in Port Augusta may experience some loss of amenity, disturbance and inconvenience associated with the construction and operation of the proposed facilities. However, impacts on recreation, boating or other marine activities would be minimal, as further described in Section 21.11 of the Supplementary EIS. The visual impacts were assessed as being 'slight' from a local viewpoint (refer Section 20.5.2 and Appendix R of the Draft EIS for details).

It is also noted that the proposed landing facility and access corridor would be operational for around seven years, and then only intermittently thereafter.

**Issue:**

Further information was sought to clarify an apparent inconsistency between the land use and zoning types shown in Figure 9.12 and Figure G2.7 in Appendix G of the Draft EIS, compared with the zoning maps in the City of Port Augusta Development Plan and the regional strategy plan.

**Submission: 2****Response:**

The data used to generate the figures in the Draft EIS were derived from different sources, which collated the information for different purposes. This has led to the discrepancies noted above. For example, the zoning provisions (i.e. allowable land uses) in council development plans do not accord exactly with the categories in State Government land use datasets (i.e. actual land uses). Figures illustrating these different aspects of actual and allowed land use should be viewed while taking into account both the different nomenclature involved and the propensity of different agencies to create different categories specific to their own informational requirements.

The land use data used to generate Figure 9.12 of the Draft EIS was obtained from the 'Statewide Land Use' dataset of 'Generalised Landuse' provided on CD by the South Australian Government's Department of Water, Land and Biodiversity Conservation (DWLBC 2006).

The data used to generate Figure G2.7 of the Draft EIS was obtained from the 'Land Development Zones' dataset, which was downloaded from the Department of Planning and Local Government's 'Spatial Download' website in 2008 (DPLG 2008).

Figure 9.12 of the Draft EIS was simplified due to the intricate and highly detailed nature of the original dataset and the large scale of the figure. For example, the original dataset distinguishes between residential and rural residential development, but in the figure these are grouped together as 'residential' to indicate general land use areas.

The zoning categories in the Port Augusta Development Plan (DPLG 2010) indicate areas of allowable land use, whereas Figure 9.12 of the Draft EIS uses the 'Generalised Landuse' data to illustrate actual land use (in broad categories).

Discrepancies between zoning and land use are largely a consequence of the differences in nomenclature between the two datasets. For example, in the Generalised Landuse dataset, the area of the Port Augusta Botanic Gardens is classified as 'Public Institution', which is included under 'Services/Commercial' in Figure 9.12 of the Draft EIS but is classified by the Land Development Zones data as 'Conservation'. Similarly, the Land Development Zones dataset classifies the area in the vicinity of the Port Augusta Airport as 'Primary Industry', whereas the Generalised Landuse dataset classifies it as 'Utility/Industrial'. In Figure 9.12 of the Draft EIS, the airport land use is classified as 'Transport and communication', along with the roads and railways in the area.

**Issue:**

BHP Billiton was asked to clarify the ownership of the land it proposes to set aside for Significant Environmental Benefit (SEB) to offset the clearance of native vegetation required for the proposed expansion. Confirmation of the rights of mining exploration leases over land set aside for SEB offsets was also requested.

**Submission: 15****Response:**

All SEB areas would be protected in accordance with the Native Vegetation Act, which could involve establishing binding Heritage Agreements with the South Australian Government, including ongoing management plans to achieve environmental benefits. BHP Billiton would not need to own these areas for the Heritage Agreement to be established and for environmental benefit to be provided. The Heritage Agreements or management plans required for each SEB area could include provisions specifically prohibiting mining.

BHP Billiton proposes to set aside 126,650 ha of rangeland to offset vegetation clearance associated with the proposed expansion and to provide a long-term ecological benefit through the established SEB system.

Currently identified SEB areas are located on either the Stuart Creek or Roxby Downs pastoral leases, which are held by BHP Billiton. As described in Appendix N9 (Section N9.5) of the Draft EIS, BHP Billiton has identified five locations as potential options for establishing SEB areas in the Arid Lands NRM region (i.e. around the Olympic Dam mine site). These locations were selected as they:

- have historically experienced light grazing pressures from domestic stock
- contain unique or important habitat types
- are located away from the potential influence of infrastructure corridors and mining operations.

In addition, the selection of potential SEB areas was also informed by criteria developed by the International Union for the Conservation of Nature (IUCN) and the International Council for Mining and Metallurgy (ICMM). These criteria (ICMM 2006; ten Kate et al. 2004) provide the principles by which native vegetation suitable for achieving a SEB is identified, and specify that the SEB areas should:

- be larger than the proposed disturbance area
- complement other programs and conservation
- achieve a net gain for biodiversity
- be quantifiable
- apply a like for like or better basis
- be in the same area
- be similar to the original habitat disturbed
- be supplementary (i.e. not already established under a separate program).

As shown in Table N9.8 of the Draft EIS and reproduced here as Table 9.1, the areas identified by BHP Billiton provide potential SEB areas that:

- vary in size from 2,750 to 159,000 ha and cover a combined area of 256,500 ha (exceeding the SEB requirement of 126,641 ha)
- are located in the same land systems and/or NRM region as the anticipated vegetation clearances
- contain habitat similar to disturbed areas
- support the known presence of listed species
- are adjacent to conservation reserves
- provide potential tourism interest.

**Table 9.1 Summary of assessment against selection criteria for each set-aside option**

Set-aside options	Selection criteria <sup>1</sup>							
	Tourism interest	Adjacent to conservation areas	Listed present	Unique habitat/ terrain types	Quantifiable area (.000 ha)	In same NRM region as vegetation loss	In same land system as vegetation loss	Habitat similar to disturbed areas
	b	b	c	d	e	f	g	h
Gosse/Emerald Springs	✓	✓	✓	✓	45.3	✓		
Wimbrina East		✓	✓	✓	19.1	✓		✓
McCormack Reserve					2.7	✓	✓	✓
Wood Duck & Black Swan			✓	✓	159	✓		✓
Kookaburra					30.4	✓	✓	✓

<sup>1</sup> Set-aside principles identified by ICMM (2006) and ten Kate et al. (2004) as described above.

As described in Section 15.5.1 of the Draft EIS, in areas where BHP Billiton does not own land (in the Northern and Yorke, and Eyre Peninsula NRM Regions), BHP Billiton would engage a third party to establish the SEB areas. These regions require SEB areas of 1,042 and 586 ha respectively.

All SEB areas would be protected in accordance with the Native Vegetation Act, which may include a binding Heritage Agreement with the South Australian Government. The Native Vegetation Act requires the preparation and implementation of management plans for the properties held in each SEB area, describing how the land would be managed to achieve a net environmental gain (such as fencing, weed control and revegetation programs). These management plans require government approval. BHP Billiton would not need to own these properties for the environmental benefit to be provided.

Like much of regional South Australia, many of the potential SEB areas are subject to mineral exploration leases held by various companies. However, access to the areas set aside for SEB areas is at the discretion of the Native Vegetation Act. Heritage Agreements and/or management plans required for each SEB area could include provisions that specifically prohibit mining.

If no suitable areas were available in these regions, BHP Billiton would make an SEB payment to the Native Vegetation Council (NVC) to offset the vegetation clearance associated with the proposed expansion. The NVC could use this payment to achieve environmental benefits (for example, through funding of conservation programs) in the relevant regions.