



## PRE-CONDITIONS TO PROTECT MOUND SPRINGS IN OLYMPIC DAM EXPANSION EIS GUIDELINES

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For more information on BHP's proposed expansion of the Olympic Dam mine visit [nuclear.foe.org.au/olympic-dam](http://nuclear.foe.org.au/olympic-dam)

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Protection of the unique Mound Springs requires that the SA government EIS Assessment Guidelines on this BHP "Major Projects" mining expansion reflect the protection, coverage and standards of the federal *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and of Objects D to the "*Commonwealth-South Australia Assessment Bilateral Agreement*". All relevant federal EPBC Act decision conditions in this area must be adopted as pre-conditions in the EIS Guidelines.

The protection of Mound Springs as a Matter of National Environmental Significance under the EPBC Act encompasses a range of Environmental Impact Assessment, science and ecology, Great Artesian Basin (GAB), Aboriginal cultural heritage and public interest considerations. These occur across federal and state responsibilities and their consideration needs to be built into the EIS Guidelines.

In the SA government undertaking this environmental assessment on behalf of the Commonwealth there is an obligation for these Guidelines to explicitly recognise and mandate Objects D in the [Commonwealth-SA Assessment Bilateral Agreement](#) (signed 25 Sept 2014), stating that:

*"The parties will work cooperatively so that Australia's high environmental standards are maintained by ensuring that: ...*

*b. Matters of National Environmental Significance (NES) are protected as required under the EPBC Act;*

*c, there are high quality assessments of the impacts of proposals on Matters of NES; and*

*d. authorized actions do not have unacceptable or unsustainable impacts on Matters of NES."*

Mound Springs are a protected Matter of National Environmental Significance under the EPBC Act.

As a listed Endangered Ecological Community under the EPBC Act, Mound Springs are categorised as:

*"facing a very high risk of extinction in the wild in the near future (indicative timeframe being the next 20 years)"*

See: <http://www.environment.gov.au/biodiversity/threatened/communities/about#howec>

Listing of Endangered Ecological Communities is a form of landscape or systems level protection.

See the Mound Springs listing: "[The community of native species dependent on natural discharge of groundwater from the Great Artesian Basin](#)", including at 11.3 South Australia.

The SA government EIS Assessment Guidelines must require the proponent to demonstrate that proposed actions in this Olympic Dam Major Project "*do not have any unacceptable or unsustainable impacts*" on Mound Springs, which are protected under the EPBC Act as Matters of National Environmental Significance (Controlling Provision Sec. 18 & 18A) and under the agreed Objects D provisions of the Commonwealth - South Australia Assessment Bilateral Agreement in this case.

## Applying 2011 federal conditions to protect Mound Springs in 2019 EIS Assessment Guidelines:

The federal government set relevant [Approval Conditions \(EPBC 2005/2270, Oct 2011\)](#) on an earlier project expansion application based on a planned open pit mine operation. This project was cancelled by BHP in 2012 after the collapse of the global uranium price following the Australian uranium fueled Fukushima nuclear crisis.

The scope of a number of relevant 2011 federal EPBC Act Approval Conditions (1, 22, 24, 27, 28, 29, 81) should form pre-conditions in the current EIS Guidelines and be applied as minimum required standards of environmental protection in the 2019 SA government EIS Assessment process.

Importantly, in 2011 the federal government set the scope of a number of relevant conditions on groundwater extraction from the Great Artesian Basin (GAB) to apply to “*all activities*” across existing Olympic Dam operations and across proposed Olympic Dam expansion operations.

However, the “[Olympic Dam Major Projects Declaration](#)” (SA Government Gazette, 14 Feb 2019, pages 461-462) has sought to limit the 2019 EIS Assessment Guidelines to “*exclude*” existing operations and resultant impacts, up to a level of copper production of 200,000 tonnes per year.

If Environmental Impact Assessment is to be credible and effective, and for this EIS Assessment to honour the EPBC Act obligation to protect Mound Springs as Matters of NES, the EIS Guidelines must address GAB water extraction and Mound Spring conservation issues across “*the entire action*” and not impose any arbitrary limitation on the 2019 EIS Assessment process.

As the “*Olympic Dam Major Projects Development Declaration*” notes, the current Olympic Dam groundwater extraction operations from the GAB were last assessed by the SA government in 1997.

In 2011 the federal government accepted its responsibilities to protect Mound Spring as a Matter of NES and applied a number of relevant Approval Conditions to do so

This occurred even though the 2011 Olympic Dam Expansion Project targeted a range of other water resources and did not directly seek at that time to increase GAB water extraction levels.

The following [2011 federal conditions](#) should be applied as pre-conditions on 2019 EIS Guidelines:

*“Conditions attached to the approval. Schedule 1: Mining and processing. Scope*

*1. The conditions of this schedule apply to all activities undertaken by the approval holder on the Special Mining Lease and to water extraction by the Approval Holder from Wellfields A and B in the Great Artesian Basin.*

*Groundwater 22. The Approval holder must ensure that the activities undertaken by the Approval Holder on a Special Mining Lease do not result in any:*

*a. significant adverse impact on groundwater dependent Listed Species or Ecological Communities*

*b. significant adverse impacts on the Environmental Values (as described in the EIS or as revised under condition 23b) of the Yarra Wurta springs.*

*24. the program required under condition 4 must include Compliance Criteria to determine whether the requirements of condition 22 are being achieved. Compliance criteria must be adequate to confirm that:*

*a. in relation to 22(a), that groundwater drawdown from mining operations will have no significant adverse impact on groundwater pressure in the Great Artesian Basin*

*b. in relation to 22(b), that groundwater drawdown from mining operations will not have a significant adverse impact on groundwater flow and pressure of the Yarra Wurta springs.*

*Extraction of water from the Great Artesian Basin*

*27. The approval holder must ensure that the extraction of water from Wellfield A and B in the Great Artesian Basin, as assessed under the Environment Protection (Impact of Proposals) Act 1974, does not have a significant adverse impact on groundwater dependent listed threatened species or Ecological communities.*

*28. The program required in Condition 4 must include:*

*a. compliance criteria for condition 27*

*b. a requirement for collection of spring flow data and bore pressure data, and details of how these will be used to refine aquifer parameters and re-estimate draw down effects at spring groups at regular time intervals*

*c. contingency measures and a response plan to address any significant adverse variation in monitored and/or predicted draw or flow rates at mound springs occurring as a result of water extraction by the approval holder*

*d. collection of a long term data set to achieve a better understanding of fluctuations in these systems.*

*Other outcomes 29. In understanding activities covered by this schedule, the Approval holder must ensure that:*

*a. there is no significant adverse impact on the abundance and diversity of Listed species outside of the Special Mining Lease as demonstrated by baseline and ongoing flora and fauna surveys*

*b. there is no increase in abundance or area of infestation of declared weeds, plant pathogens and pest animal populations (as declared under the NRM Act 2004 SA) as demonstrated by baseline and ongoing flora and fauna surveys.*

*Schedule 7: Whole of project conditions. Scope*

*81. The conditions in this schedule apply to the entire action as referred under the Act and any activities relating to the Olympic Dam mine that were assessed under the Environment protection (Impact of Proposals) Act 1994 that will continue after the date of this approval."*

Note: 81 applied to various Plans, Auditing, reporting Compliance and remediating non-Compliance.

**Recommendations:**

**Pre-Conditions to protect Mound Springs and explore alternatives to Great Artesian Basin water extraction**

The federal Department of Environment assessed Mound Spring protection issues in 2011. At this time the federal Minister set a range of strong [EPBC Act Conditions](#) on "Groundwater" and on "Extraction of Water from the Great Artesian Basin".

These federal conditions must now be applied in the Guidelines to the required EIS Assessment process across the entire Olympic Dam operation, on both the proposed expansion of mining at Olympic Dam as well as across existing BHP operations, including that:

- The conditions apply to all activities undertaken by the Approval Holder on the Special Mining Lease and to water extraction from Wellfields A and B in the Great Artesian Basin;

- The Approval Holder must ensure that the extraction of water from Wellfield A and B in the Great Artesian Basin does not have a significant adverse impact on groundwater dependent Listed Threatened Species or Ecological Communities; and
- That groundwater drawdown from mining operations will have no significant adverse impact on groundwater pressure in the Great Artesian Basin.

The EIS Guidelines must require that BHP present alternatives to any increase in extraction of Great Artesian Basin waters and the associated impact and risks to protected Mound Springs, for EIS Assessment and public scrutiny.

The required alternatives must include options to close Wellfield A and to phase out Wellfield B.

Such action is also needed to protect the fundamental, important and ongoing Aboriginal cultural heritage associated with the unique and fragile Mound Springs.

