

Via online portal: <https://www.planningportal.nsw.gov.au/major-projects/project/10571>

Submission re Warragamba Dam Raising SSI-8441; EPBC 2017/7940

The Advisory Committee for the Greater Blue Mountains Area World Heritage property (GBMA) is jointly appointed by the NSW and Commonwealth environment ministers to provide advice on the protection, conservation, presentation and management of the GBMA and issues concerning surrounding land uses that have the potential to impact on the area.

The Advisory Committee considers the proposed raising of Warragamba Dam wall has the potential to affect the integrity of the Greater Blue Mountains Area World Heritage property and, therefore, to impact adversely upon the Outstanding Universal value of the property. This is contrary to Australia's obligations under the World Heritage Convention. In summary the Committee considers the EIS is deficient in that it does not adequately:

- consider the impacts of the project on all the elements of Outstanding Universal Value (OUV) for the property as a whole
- specifically address impacts on the all the attributes of the values
- properly address the "integrity" component of the World Heritage Area, including with respect to the Aboriginal cultural heritage of Outstanding Universal Vale

The EIS recognises but does not address the statutory obligation to assess the impact on National Heritage Values, in particular matters relating to Aboriginal cultural heritage. The EIS should be withdrawn and the statutory assessment requirements be undertaken.

Attached are the Advisory Committee's detailed comments.

Please contact our Executive Officer, Jacqueline Reid via email gbm.worldheritage@environment.nsw.gov.au or telephone 0419 307 099 for any further information.

Yours sincerely,



Bruce Leaver, AM
Chair

Greater Blue Mountains World Heritage Area Advisory Committee

19 December 2021

WORLD HERITAGE

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) explains

“Heritage is our legacy from the past, what we live with today, and what we pass on to future generations. Our cultural and natural heritage are both irreplaceable sources of life and inspiration.”

The Operational Guidelines for the Implementation of the World Heritage Convention state:

“The cultural and natural heritage is among the priceless and irreplaceable assets, not only of each nation, but of humanity as a whole. The loss, through deterioration or disappearance, of any of these most prized assets constitutes an impoverishment of the heritage of all the peoples of the world. Parts of this heritage, because of their exceptional qualities, can be considered to be of “Outstanding Universal Value” and as such worthy of special protection against the dangers which increasingly threaten them.”¹

And:

“States Parties to the World Heritage Convention, have the responsibility to: ensure the identification, nomination, protection, conservation, presentation, and transmission to future generations of the cultural and natural heritage found within their territory.”

The Advisory Committee is seriously concerned that the EIS for the project states against a management objective “*Identification, protection, conservation, presentation and transmission to future generations of the values of the Greater Blue Mountains World Heritage Area*” is **not relevant to or affected by the Project**².

This reflects that the proponent is not cognizant of the international significance of the GBMA and the responsibility of the NSW Government, supporting the Australian Government (State Party) in protecting and conserving the GBMA from impacts described in the EIS.

The EIS response to the management objective (pg 120, Appendix J)

“Mitigation measures for biodiversity, heritage and other environmental aspects are proposed for the protection, conservation and presentation of the cultural and natural heritage of the GBMWA. These include: Warragamba Offset Program; National Parks EMP; Other mitigation measures as detailed in the EIS.”

Mitigation measures, particularly offsetting, are not protecting and conserving the OUV of the GBMA. The project will significantly impact OUV and mitigation measures are not appropriate for a property inscribed in the World Heritage List.

Greater Blue Mountains Area World Heritage nomination

In the Government of Australia’s, *The Greater Blue Mountains Area World Heritage Nomination*³, the significance of the property’s geodiversity; ecological and biological processes; biodiversity and especially of the eucalypt-dominated vegetation; the Aboriginal associations; historical associations; and wilderness qualities were outlined. The GBMA was nominated by Australia, with the full support of the NSW Government, for its cultural and natural values.

¹ <https://whc.unesco.org/en/guidelines/>

² Section 10.1, Appendix J – World Heritage Assessment, pg 142

³ <https://whc.unesco.org/uploads/nominations/917.pdf>

“Nattai National Park and adjoining protected areas protect the catchments of tributaries of Lake Burragorang, created by the Warragamba Dam and now Sydney’s major water supply. The protection of this supply from potentially damaging developments has maintained the park in a relatively unmodified condition.” Pg 192

“The Blue Mountains, Kanangra-Boyd, Nattai and Thirlmere National Parks lie largely within the Warragamba Special Area catchment, covering 2,511 sq.km. Warragamba Dam provides 70 per cent of Sydney’s water supply. The Water Board (Corporatisation) Act 1994 requires that a plan of management be prepared to protect the quality of stored waters and maintain the ecological integrity and other values of the area.” Pg 229

Two areas declared under the *Wilderness Act 1987* – the

“Nattai Wilderness, an area of 29,822 hectares within Nattai National Park, declared in 1991; and Kanangra-Boyd Wilderness, an area of 125,000 hectares within Kanangra-Boyd and Blue Mountains National Parks, declared in 1997... subject to the most secure form of protection possible under State law.” (Pg 230)

These Wilderness areas will be impacted by the project.

In Pressure and Response

“One option was to raise the dam wall for the temporary storage of floodwaters, until the flood subsided. This would inundate parts of the Kanangra-Boyd Wilderness and the Nattai Wilderness for up to five weeks in the event of the maximum possible flood. The New South Wales government has decided not to proceed with this option, but instead to construct a second spillway... This has **removed the danger of irreversible damage to some 3,000 hectares** of the nominated area, in the event of a major flood.” (Pg 248).

This project will cause **irreversible** damage.

The EIS does not discuss or address the impact of inundation on all areas of declared wilderness that may be affected by the project. These include a section of the Nattai Wilderness near the Wollondilly and Nattai Rivers and some small sections of the Kanangra Boyd Wilderness on Butchers, Laceys and Green Wattle Creeks. A section of the Kanangra-Boyd Wilderness between the Cox’s River and Tonalli Cove, along the Lake Burragorang Foreshore and associated creeks falls outside of the GBMWA but will be impacted by the proposal.

Advisory Body Evaluation (IUCN)

The 1999 World Heritage Nomination – *IUCN Technical Evaluation The Greater Blue Mountains Area*⁴ noted

“A number of uses have had substantial cumulative impact on the nominated area [GBMA] in the past (though most have now been phased out) These are:

- ♦ Water storage dam. The Warragamba dam, which created lake Burragorang, supplies 70% of Sydney’s water requirements. A substantial area of the GBM valley bottom forest was lost when the dam was constructed. Although the reservoir itself has been excluded from the nominated area, part of its catchment area extends into the Nattai, Blue Mountains and Kanangra Boyd areas of the GBM.” Pg 175

Statement of Outstanding Universal Value

In 2013, the retrospective Statement of Outstanding Universal Value (OUV)⁵ was adopted by the World Heritage Committee. The Statement provides: a description and *examples* of the

⁴ <https://whc.unesco.org/document/154593>

⁵ <https://whc.unesco.org/en/list/917/>

attributes of the property against the Criterion for which it was inscribed; a statement of the Integrity of the property; and the protection and management requirements.

“Additional regulatory mechanisms, such as the statutory wilderness designation of 65% of the property, the closed and **protected catchment for the Warragamba Dam** and additions to the conservation reserves that comprise the area further **protect the integrity of the GBMA.**”

The EIS describe significant impacts to biodiversity and Aboriginal cultural heritage in particular, which will not protect the integrity of the GBMA.

Minor boundary modification

Since 2000, significant additions to the 8 reserves have improved the integrity of the World Heritage property. This includes over 21,300 hectares to the Blue Mountains National Park, 6,200 hectares to the Kanangra-Boyd National Park and 2,900 hectares to the Nattai National Park. The Statement of OUV recognises these additions protect the integrity of the GBMA and so, the reserves are managed, in their entirety, for their Outstanding Universal Value.

The *Operational Guidelines for the Implementation of the World Heritage Convention* (2019)⁶ outlines the process for minor modifications to the boundaries of World Heritage properties (Paragraph 164). The Australian Government has delayed the minor modification to the boundary of the GBMA, incorporating that in the process for National Heritage List assessment of the property.

The Advisory Committee recommends that despite the formality of a minor boundary adjustment, the additions to the Blue Mountains National Park in the potential inundation area, are included in the calculation of area of impact, as they are currently managed for their OUV.

National Heritage List

In 2007 the GBMA property was included on the National Heritage List (under the *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act)) for the same values that it is inscribed on the World Heritage List.

The GBMA has been on the Australian Government's Priority Assessment List for the National Heritage List since 2008. The assessment of 260,000 hectares of adjacent conservation reserves and State Forests; and the geodiversity, scenic and cultural (Indigenous and historical) values was due to be completed by the Australian Heritage Council in 2010.

This includes the Nattai, Burratorang and Yerranderie State Conservation Areas which will be impacted by inundation if the project proceeds.

In August 2014, the former NSW Minister for the Environment expressed to the Advisory Committee and to the former Commonwealth Minister for the Environment his support for the inclusion of the adjacent areas and “*strong support for the assessment of the Greater Blue Mountains to consider the important additional values relating to Indigenous and historic cultural values, geodiversity and aesthetic values through their inclusion on the National Heritage List.*”

The Advisory Committee strongly recommends that the outcome of the National Heritage List assessment of these adjacent lands, additions to the constituent reserves and other values is finalised prior to any decision on this proposal.

⁶ <https://whc.unesco.org/en/guidelines/>

While the National heritage values are the same as the World Heritage property the EPBC Act deals with the management of those values differently. Addressing protection of those values in any environmental impact assessment is a statutory obligation. The EIS does not address this issue.

The Advisory Committee recommends the EIS be withdrawn and an assessment of National Heritage values and management implication be undertaken.

This is supported by Australia ICOMOS (International Council on Monuments and Sites; official advisor to the World Heritage Committee on culture) who:

“continues to hold the view that the NSW Government should undertake serious and substantive re-consideration of alternatives to the proposed raising of the Warragamba Dam wall, and that any decision about the proposed raising of the wall should be completely suspended until the Australian Heritage Council has completed the current Priority Assessment List process.”⁷

State of Conservation report December 2020

The State Party Report on the state of conservation of the Greater Blue Mountains Area World Heritage property⁸, submitted by the Australian Government in December 2020, with input from the NSW Government, in response to World Heritage Committee Decision 43 COM 7B.2 2019 (see below) states:

“A full Aboriginal Cultural Heritage Assessment report regarding the impact of the proposal on Aboriginal culture heritage values found in the property will be appended to the publicly released EIS.”

The EIS does not fully assesses all potential impacts because it does not provide adequate identification, investigation or assessment of the potential impacts on the Indigenous cultural values which are attributes that contribute to the integrity that underpins the property's outstanding universal values.

World Heritage Committee decision 2021

In July 2021, the World Heritage Committee adopted decision 44 COM 7B.180 which states:

“5 [The World Heritage Committee] Takes note of the information provided by the State Party regarding the ongoing preparation of the Environmental Impact Statement (EIS) for the project proposal to raise the Warragamba Dam wall, reiterates its request [author's emphasis] to the State Party to ensure, in line with its commitments, that the current process to prepare the EIS fully assesses all potential impacts on the OUV of the property and its other values, including Aboriginal cultural heritage, and also requests the State Party to thoroughly assess whether raising the wall could exacerbate bushfire impacts on the property and affect the medium- and longer-term recovery prospects of key species and habitats within the predicted temporary inundation areas”

The EIS concludes only a small percentage in the upstream impact area was affected by intense fire and does not assess whether the project will exacerbate the 2019-20 bushfire (or future bushfire events) impacts.

⁷ Australia ICOMOS submission to the Legislative Council Select Committee on the Proposal to Raise the Warragamba Dam wall 02/12/2019 from:

<https://www.parliament.nsw.gov.au/lcdocs/submissions/66909/0384%20Australia%20ICOMOS.pdf>

⁸ <https://whc.unesco.org/document/185676>

The EIS states in relation to Aboriginal cultural heritage that if the project proceeds "there is no capacity for directly applied management measures for the avoidance or minimisation of harm".

The Advisory Committee advises that the mitigation and management measures in the EIS, including recording of Aboriginal cultural heritage rather than the focus on avoidance of harm, and the Warragamba offset strategy, are unacceptable.

The Aboriginal cultural values of the GBMA contribute to its OUV, these values cannot be offset.

The World Heritage property is a mapped extent inscribed on the World Heritage List. It cannot be replaced by purchasing alternative land.

State of Conservation update April 2020

The State of Conservation update⁹ submitted by the Australian Government in April 2020 with information provided by the NSW Government noted:

"The NSW Government will require Water NSW (the proponent of the proposed project) to undertake an evaluation of the recent bushfire impacts."

It is clear the EIS does not report field surveys and assessment of the fire affected areas in the upstream study area. The EIS only assessed the impacts of the bushfires with a desktop analysis of fire mapped areas which indicates that most of the inundation area is unburnt or low intensity. This increases the importance of this area as a post-fire refuge and crucial for some species in future fires.

The EIS does not address the cumulative impact of fire followed by a flood event (as would likely have occurred in the last two years). Particularly for erosion and sedimentation and post fire refuge for animals and the impact on obligate seeder plant species.

The Advisory Committee is concerned that Water NSW did not deliver on the commitment made regarding post fire evaluation, noting it would be valuable to assess any changes to species distribution within the study area. Particularly species who may have had their habitat severely reduced by fire and are using the inundation area as refugia.

State of Conservation report 2019 and World Heritage Committee decision

The State Party report 2019¹⁰, requested by the World Heritage Centre in response to concerns from the proposal to raise the Warragamba Dam wall, notes:

"Raising the dam wall would increase the frequency, duration, depth and/or extent of temporary inundation of areas located upstream of the dam wall. This may have impacts on biodiversity, aesthetic, wilderness and Indigenous cultural values."

"The Australian Government's expectation is that potential impacts on all heritage values relevant to the property, including threatened species and Indigenous cultural values within the proposed inundation area, will be fully addressed in the Environmental Impact Statement."

It is clear the EIS does not adequately address potential impacts to threatened species and Indigenous cultural values.

The related World Heritage Committee Decision 43 COM 7B.2 2019 states:

"3. Notes with concern that the State Party recognizes that the proposed raising of the Warragamba Dam wall is expected to increase the frequency and extent of temporary inundation of the property upstream of the dam;

4. Considers that the inundation of areas within the property resulting from the raising of the dam wall are likely to have an impact on the Outstanding Universal Value

⁹ <https://whc.unesco.org/document/181923>

¹⁰ <https://whc.unesco.org/document/174745>

(OUV) of the property, recalls Decision 40 COM 7, in which it considered that the construction of dams with large reservoirs within the boundaries of World Heritage properties is **incompatible with their World Heritage status**, and urged States Parties to “ensure that the impacts from dams that could affect properties located upstream or downstream within the same river basin are rigorously assessed in order to avoid impacts on the OUV”;

The EIS does not address this issue. The dam was constructed prior to World Heritage listing and contributed to substantial cumulative impact.

The proposal to raise the dam wall will have a significant impact, as described in the EIS, on the Outstanding Universal Value of the GBMA and is incompatible with World Heritage status.

The EIS does not address the possibility of the World Heritage Committee deciding to include the property on the World Heritage in Danger List as result of impact from the proposed project.

World Heritage Committee decision 2004

The World Heritage Committee decision from the 2004 Greater Blue Mountains Area (Australia) Document: 28 COM 15B.15 2004¹¹

“2. Encourages the State Party to prevent any developments that could have adverse effects on the World Heritage property;” (pg 81); and

“The State Party [Australian Government]...indicated that the *Environment Protection and Biodiversity Conservation Act of 1999* imposes obligations on undesirable actions not only within a World Heritage area but also outside the area.”¹²

The EIS acknowledges the project will have an adverse effect on the World Heritage property, therefore the Advisory Committee strongly recommends the project should not be approved.

World Heritage Management Principles

The EIS provides an assessment of the proposal against Schedule 5 of the Environment Protection Biodiversity Conservation Regulations 2000 which state:

“The primary purpose of management of natural heritage and cultural heritage of a declared World Heritage property must be, in accordance with Australia’s obligations under the World Heritage Convention, to identify, protect, conserve, present, transmit to future generations and, if appropriate, rehabilitate the World Heritage values of the property.”

The Advisory Committee is concerned that the EIS suggests that:

“Where impacts cannot be avoided, [clearly the case] the Warragamba Offset Program would ensure that appropriate offsets are provided to rehabilitate any loss or degradation of the World Heritage values of the GBMWA.”

The EIS Risk matrix for Environmental consequences for upstream areas (Table 18-7) shows impacts as Extreme due to Loss of a nationally or internationally recognised threatened species or vegetation community. The EIS concludes that the directly impacted areas are assumed to be completely destroyed and that as they are only 304 ha (.03%) plus 18-30 ha downstream the overall impact on the WHA is minimal and that a biodiversity offset strategy (BOS) has been prepared to address the potential impacts of the Project resulting from upstream temporary inundation. The BOS assumes that there would be 100 % loss of

¹¹ <https://whc.unesco.org/document/5252>

¹² <https://whc.unesco.org/en/soc/1407>

ecosystem and species values within the upstream impact area. While there are copious descriptions on measures taken for assessing offsets, apart from saying that like-for-like habitat is unattainable, there is no information of what areas are to be considered.

Greater Blue Mountains World Heritage Area Strategic Plan

The Greater Blue Mountains World Heritage Area Strategic Plan (2009) was adopted by both Australian and NSW Governments, as the basis for conserving and managing the GBMA to assist in meeting Australia's international responsibilities under the World Heritage Convention.

The Desired Outcome of the Key Issue *Major Impacts* includes:

- “Developments and activities with an unknown but potentially significant impact on the World Heritage and other values of the GBMWHa are either modified to minimise the risk of impact on those values or do not proceed.”

The EIS has provided inadequate assessment of the attributes of the OUV of the GBMA and made subjective claims about the consequence and risk. It is clear the project should not proceed.

The Desired Outcome of the Key Issue *Biodiversity* includes:

- “Terrestrial and aquatic ecosystems and their associated ecological processes, species, populations and genetic diversity are all protected and conserved in-situ.
- Conservation of the reserves' World Heritage values is the primary consideration in their management.”

It is clear from the EIS that parts of the GBMA and adjacent lands will be impacted by the proposal, conflicting with these outcomes.

The Objective of the Key Issue *Water Catchment Protection* is:

- To maintain and improve the water quality and water catchment values of the GBMWHa.

The EIS assesses impacts from potential inundation on the water catchment area behind Warragamba Dam. This proposal will not maintain those values.

The Desired Outcome of the Key Issue *Cultural heritage* includes:

- “The cultural heritage values of the GBMWHa are retained, better understood, and their significance is formally recognised at State, National and World Heritage level as appropriate.
- The cultural, traditional and social significance of the landscapes within the GBMWHa to Aboriginal people is widely acknowledged and respected.”

The EIS acknowledges the Aboriginal cultural values of the area to be inundated if the proposal is approved, however these values will not be retained and the loss of Aboriginal cultural values is disrespectful, to Indigenous and non-Indigenous alike.

The Desired Outcome of the Key Issue *Landscape, natural beauty and aesthetic values* includes:

- “Any adverse impacts on the natural beauty and aesthetic values are prevented, eliminated, or at least minimised.
- Adjacent lands are managed so as to retain the landscape values of the GBMWHa.”

The EIS downplays the impact of increased inundation on the natural beauty of the GBMA, an element identified in the Statement of OUV that contributes to its integrity, concluding it will not be visible from Echo Point. There are numerous other vantage points that will reveal scarring on the landscape.

International Union for the Conservation of Nature (IUCN)

The IUCN is the official advisor on nature under the World Heritage Convention to the UNESCO World Heritage Committee. IUCN makes recommendations on necessary action to protect sites facing threats.

The IUCN's World Heritage Advice Note: Environmental Assessment¹³ states:

"An Environmental Assessment for a proposal affecting, or with the potential to affect, a natural World Heritage Site is intended to ensure that the proposal's likely impacts on the Outstanding Universal Value of the site are fully considered in land-use planning decisions with the objective of preserving these exceptional places for future generations."

"IUCN's position is that infrastructure and other development proposals and/or concessions located within, or outside the boundaries of a natural World Heritage Site, should be considered in terms of whether they are compatible with the long-term objective of preserving the Outstanding Universal Value of the site for future generations. Those proposals that are not compatible with this objective should not be permitted within these sites. Note that most major infrastructure proposals and other large-scale development proposals are unlikely to be compatible with the preservation of a natural World Heritage Site, and alternatives should therefore be sought."

The EIS does not effectively address the objective of preserving the exceptional Greater Blue Mountains Area.

The IUCN World Heritage Outlook Report (2020)¹⁴ Conservation Outlook Assessment identified the raising of Warragamba Dam wall as being of **high threat inside the site**, likely to impact biodiversity, aesthetic, wilderness, geodiversity and Indigenous cultural values.

The assessment rating for the GBMA has changed from 'good with some concerns' in 2017 to 'significant concern' in the 2020 report which notes:

"Impacts of developments adjacent to the site require ongoing vigilance".

The Advisory Committee fully supports the motion ratified by the IUCN World Conservation Congress at its session in Marseille, France 2021¹⁵:

1. CALLS ON the State Government of NSW to abandon all plans to raise the Warragamba Dam wall;
2. CALLS ON the Government of Australia to refuse all approvals for the raising of the Warragamba Dam wall and any other developments which would impact the Outstanding Universal Values of the Greater Blue Mountains World Heritage Area; and
3. ENCOURAGES the IUCN World Heritage Programme to continue to flag concerns regarding the Warragamba Dam-raising project, along with any other threats (post-

¹³

https://www.iucn.org/sites/dev/files/import/downloads/iucn_advice_note_environmental_assessment_18_11_13_iucn_template.pdf

¹⁴ <https://worldheritageoutlook.iucn.org/explore-sites/wdpaid/220294>

¹⁵ <https://www.iucncongress2020.org/motion/082>

NSW bushfires) to the Greater Blue Mountains World Heritage Area, through mechanisms such as World Heritage Outlook.”

BIODIVERSITY

The GBMA property was inscribed on the World Heritage list in 2000 for its outstanding universal biodiversity values. The ecosystems of the GBMA are globally significant because it contains outstanding examples of the evolution and adaptation of the genus *Eucalyptus* and eucalypt dominated vegetation. The evolutionary processes include the full range of interaction between eucalypts, understorey, fauna, environment and fire.

There is insufficient analysis of World Heritage values related to biodiversity – there is a focus on species listed as threatened or endangered and some brief analysis of impact to scleromorphic species and ant-adapted species. However, there is no assessment of the impact of this project:

- on ongoing ecological and biological processes
- the evolution of *Eucalypt* species
- Gondwanan flora / fauna associations
- taxa of conservation significance i.e. species and communities which are endemic or have a restricted range.
- the impact on endemic and restricted range species in the context of impact on OUV

The EIS should include assessment of the impact of temporary inundation on these aspects of the World Heritage value and at a minimum include all ecological communities and species within the impact area as significantly impacted for the purposes of offsetting.

The EIS provides a superficial approach to the impacts to OUV and minimises the impact using terms such as ‘could’ and ‘may’ instead of ‘will’. The EIS has not met the expected high standard of assessment for a significant impact to a World Heritage property.

The Advisory Committee expresses concern at the incomplete seasonal data in surveys for the EIS; the impact on Critically Endangered Regent Honeyeater and habitat; selective editing of consultants’ reports¹⁶ and the impact on the endemic *Eucalyptus benthamii*.

Native vegetation types within the upstream impact area include areas of all 18 PCTs mapped in the study area.

Endangered or critically endangered vegetation under the BC and/or EPBC Acts include:

HN527 (PCT 840): Forest Redgum-Yellow Box = 127.8 ha

HN553 (PCT 941): Mountain Blue Gum - Thin-leaved Stringybark open forest = 104.5 ha

HN557 (PCT 1401): Narrow-leaved Ironbark - Forest Red Gum = 14.7 ha

Loss of threatened flora species and their habitat:

- 75 flora species credit species
- 16 fauna species credit species

The EIS Risk matrix for Environmental consequences for upstream areas (Table 8-17) concludes that the directly impacted areas are assumed to be **completely destroyed**.

The Advisory Committee is strongly opposed to the destruction of significant species, habitat, fauna and ecological process – the core values against the World Heritage criteria and its Outstanding Universal Value.

¹⁶ Refer to the Report on proceedings before the Select Committee on the proposal to raise the Warragamba Dam Wall 08/11/2021 from: <https://www.parliament.nsw.gov.au/lcdocs/transcripts/2751/Transcript%20-%20UNCORRECTED%20-%20Warragamba%20Dam%20Wall%20-%20Hearing%208%20November%202021.pdf>

ABORIGINAL CULTURAL HERITAGE

The Advisory Committee expresses deep concern for the Aboriginal cultural heritage of the areas proposed to be inundated. No archaeological surveys were conducted when the Burragorang valley was dammed between 1948 and 1960 and therefore no chance of recovery of that irreplaceable heritage. No regard was given to the Aboriginal people, displaced from their Country by Warragamba Dam.

The Advisory Committee is concerned that the EIS does not acknowledge that the Gundungurra peoples, broader Aboriginal community and the people of the Greater Sydney Basin have already lost significant Aboriginal cultural heritage and suffered displacement from Country.

Aboriginal cultural heritage is a key attribute of the OUV

The EPBC Act controlling provisions for World Heritage relate to any impact on *World Heritage values* (as meant by the World Heritage Convention). The World Heritage Committee has adopted statements of World Heritage Outstanding Universal Value (OUV) for each property.

The EIS (section 9.2) states:

“World Heritage values are those values directly related to the criteria for which an area is included on the World Heritage List. The GBMWH was inscribed on the World Heritage List in 2000 because it satisfies two of the criteria for natural values of outstanding universal significance. The values related to the within the GBMWH. The Outstanding Universal Values integrity statement also nominates a third value, being Aboriginal cultural heritage. The impacts of the Project are assessed against these three values in Section 7.”

The Statement of Outstanding Universal Value (OUV) for the GBMA property acknowledges an understanding of the cultural context of the GBMWH is fundamental to the protection of the property's integrity. Aboriginal people from six language groups, through ongoing practices that reflect both traditional and contemporary presence, continue to have a custodial relationship with the area. These are the Darkinjung, Darug, Dharawal, Gundungurra, Wanaruah and Wiradjuri. Occupation sites and rock art provide physical evidence of the longevity of the strong Aboriginal cultural connections with the land.

The Commonwealth considers that the OUV are as adopted by the World Heritage Committee in 2013 and therefore form the ‘World Heritage values’ (and National Heritage values) protected by the EPBC Act. Under the EPBC Act these values are protected as matters of national environmental significance (MNES), both within the property and from actions outside the property that may impact on those values.

The EIS recognises both the OUV and the importance of the region as a landscape with Aboriginal cultural values. However proposed mitigation measures are directed to specific sites and do not address the degradation of the cultural landscape values that would be incurred as a result of the project proceeding.

The EIS does not examine the implications of National Heritage listing despite acknowledging National Heritage is a MNES ‘controlling provision’.

Protection and management requirements are set out in the Statement of OUV, including:

“The set of key management objectives set out in the Strategic Plan provides the philosophical basis for the management of the area and guidance for operational strategies, in accordance with requirements of the World Heritage Convention and its Operational Guidelines. These objectives are also consistent with the Australian World Heritage management principles, contained in regulations under the Environmental Protection and Biodiversity Conservation Act.”

The GBMWHa Strategic Plan includes cultural heritage as one of the 10 key issues and notes the GBMA is rich in evidence of the cultural continuity of its Aboriginal occupants and their artistic and spiritual expression. Indigenous groups have an active interest in the protection and management of the area's cultural values. A management objective is that:

"The cultural, traditional and social significance of the landscapes within the GBMA to Aboriginal people is widely acknowledged and respected."

Aboriginal cultural heritage values were updated in Chapter 3 of the document Values for a New Generation (2015)¹⁷ Both documents contain important matters relating to the protection of Aboriginal cultural heritage in the Greater Blue Mountains and should have been addressed as relevant to the OUV in the EIS.

Section 18.4 of the EIS acknowledges the significance of cultural landscape:

"The landscape surrounding Warragamba Dam holds deep cultural values for the Aboriginal people. These values derive from both traditional knowledge and from social and historic associations with places, stories and cultural resources such as plants, animals and water."

The EIS (Chapter 18) provides an assessment of Aboriginal Heritage. Whether that assessment is adequate is a matter for the Aboriginal groups involved. Despite the acknowledged significance of the cultural landscape the EIS provides no analysis of the impact of the project on cultural landscape values despite the OUV statement: Aboriginal people from six language groups, through ongoing practices that reflect both traditional and contemporary presence, continue to have a custodial relationship with the area.

The impact on the cultural landscape and the custodial relationship with the area is an obligation under Schedule 5 section 3.03 of the EPBC Regulation:

"3.03 The assessment process should:

- (a) identify the World Heritage values of the property that are likely to be affected by the action; and
- (b) examine how the World Heritage values of the property might be affected;"

The EIS cultural landscape risk assessment is confined to Chapter 18 (p47):

"The Gurrangatch-Mirrigan Dreaming Track as a whole is considered to be of Very High Significance."

The balance of the EIS assessment is directed to places and archaeological sites.

EIS Chapter 12 acknowledges the matter of national heritage places as a 'controlling provision' but the EIS provides no analysis of this matter or implications for the project.

The World Heritage OUV was designated by the Commonwealth as the National Heritage Values. The Act however deals with the two listings separately. World Heritage requires a management plan to be prepared (GBMWHa Strategic Plan (2009)). National Heritage also requires a management plan to be prepared but there are provisions that apply in the absence of a National Heritage management plan.

324U Compliance with plans by the Commonwealth and Commonwealth agencies

- (2) If there is no plan in force under section 324S for a particular National Heritage place described in subsection (1) of that section, the Commonwealth and each Commonwealth agency must take all reasonable steps to ensure that its acts (if any) relating to the place are not inconsistent with the National Heritage management principles.

No plan has been prepared for the Greater Blue Mountains National Heritage place.

¹⁷ <https://www.naturetourismservices.com.au/threesisters/values-for-new-generation2.pdf>

There are no statutory mechanisms that allow a World Heritage plan to automatically apply to a National Heritage place. The two listings deal with Indigenous cultural heritage differently, reflecting the 30 years gap between the adoption of the wording of the World Heritage Convention and the National Heritage provisions of the EPBC Act.

In the absence of a management plan, EPBC Schedule 5B—(National Heritage management principles) applies. The principles include:

“6 Indigenous people are the primary source of information on the value of their heritage and the active participation of indigenous people in identification, assessment and management is integral to the effective protection of indigenous heritage values.”

The EIS defines (p 18-15) cultural heritage:

“Cultural significance is embodied in the place: in its tangible or physical form; in the wider cultural landscape that it is located in; in the ways in which the place is used or interacted with; and in the associations, stories, and meanings of the place to the people and community it holds significance for:

“Aboriginal cultural heritage consists of any places and objects of significance to Aboriginal people because of their traditions, observances, lore, customs, beliefs and history. It provides evidence of the lives and existence of Aboriginal people before European settlement through to the present

“For Aboriginal people, cultural heritage and cultural practices are part of both the past and the present and that cultural heritage is kept alive and strong by being part of everyday life.”

Since the EIS is dealing with National Heritage as a ‘controlling provision’ it would have been more useful to use the EPBC Act definition (Section 528):

“Indigenous heritage value of a place means a heritage value of the place that is of significance to indigenous persons in accordance with their practices, observances, customs, traditions, beliefs or history.”

Indigenous tradition is defined in Section 201:

“meaning the body of traditions, observances, customs and beliefs of indigenous persons generally or of a particular group of indigenous persons.”

This is an important issue. This definition empowers Indigenous people in defining heritage value rather than relying on the interpretation of non-Indigenous people applying a definition.

The EIS should address heritage value (including any cultural landscape) as matters of significance for each of the Aboriginal language groups impacted by the proposal. National Heritage recognises significance for a particular group of Indigenous persons rather than a collective assessment or the application of benchmarks established elsewhere in Australia. That significance is as advised by the group or groups involved.

It logically follows that cultural landscape recognition in any EPBC National Heritage listing could be different cultural landscapes with possibly different boundaries, varying by the nature of the heritage significance attributed by a particular language group.

It is important to note that the Aboriginal cultural values of the landscape include historical era values which could include colonial impacts and any other relevant historical events of significance to the language groups involved.

The EIS is deficient in how it deals with Matters of National Environmental Significance (MNES), it correctly identifies World Heritage and National Heritage as part of the ‘controlling provisions’ for the assessment but confines the MNES assessment to biodiversity (Chapter 12).

Even with the somewhat dated language of the 1972 World Heritage Convention, if the convention definition for *cultural heritage* is read in the context of the Outstanding Universal Value for Greater Blue Mountains adopted in 2013 the convention refers to ‘areas’ (and

sites) *from the historical, aesthetic, ethnological or anthropological point of view*. These are values protected by the World Heritage provisions of the EPBC Act and thus should be addressed in an EIS covering a controlled action.

The Aboriginal landscape cultural values are thus fundamental to the protection of the integrity of the World Heritage OUV. The values equally apply to the National Heritage Listing. The National Heritage provisions of the EPBC Act require that any conclusion or decision taken in relation to the assessment starts from the position that Aboriginal heritage values are what Indigenous representative bodies say they are.

The Advisory Committee strongly urges that no final decision on the project should be taken until the impact, not only on Aboriginal sites and objects is taken into account, but the impact on the affected region as a cultural landscape (as recognised in EIS section 18.4) be assessed and mitigated. That assessment should be separately directed to each of the Aboriginal language groups with an interest in the landscape the subject of the proposal.

If those cultural landscapes have been identified by the relevant Aboriginal groups, as a National Heritage place the Commonwealth must take all reasonable steps to ensure that its acts relating to the place (including the determination of an EIS process) are not inconsistent with the management of those values.

Gundungurra ILUA

The Burragorang Valley [inundation area] is encompassed in the Agreement Area of the Gundungurra Indigenous Land Use Agreement (ILUA) between the Gundungurra people, the Gundungurra Tribal Council Aboriginal Corporation, Gundungurra Aboriginal Heritage Association (GAHAI) and the NSW Government. The Gundungurra ILUA provides for “the protection and conservation of Aboriginal heritage and cultural values within the SCA Lands [Water NSW Lands and] National Park Lands”.

The EIS does not identify in enough detail that this land is subject to the Gundungurra Indigenous Land Use Agreement.

The GAHAI members do not support raising the Warragamba Dam wall.

The Advisory Committee are concerned that the Traditional Owners of this significant area and the Greater Sydney Basin have probably suffered more historical cultural injury and dislocation than anywhere else in Australia, and fully support the Gundungurra people in their rejection of the proposal.

Aboriginal Place nomination

The State Party Report on the state of conservation of the Greater Blue Mountains Area World Heritage property¹⁸, submitted by the Australian Government in December 2020, with input from the NSW Government, in response to World Heritage Committee Decision 43 COM 7B.2 2019 (see below) states:

“In August 2018, an Aboriginal Place nomination was made by Traditional Owners for an extensive area in the Burragorang Valley in the GBMA. When a significant place is declared an Aboriginal Place, it is protected under the *NSW National Parks and Wildlife Act 1974*.”

The Advisory Committee formally supports the nomination by GAHAI which sets out a robust set of cultural values for the area, including:

- the strong association of the Cox and Wollondilly rivers with the Songline story of the ancestral beings Gurangatch and Mirrigan

¹⁸ <https://whc.unesco.org/document/185676>

- as a place where Aboriginal families lived and maintained connection with Country into the twentieth century [*until they were displaced by the flooding of the Burratorang Valley by the original construction of Warragamba Dam*].
- as a place Aboriginal people have continued to visit, maintain knowledge, teach and research.

The Advisory Committee notes that the protections afforded by an Aboriginal Place will not apply given the proposal has been declared State Significant Infrastructure. However, the NSW Government has not progressed the assessment of whether this *cultural landscape*, is or was of special significance to Aboriginal culture.

The Advisory Committee strongly recommends that a decision on this project proposal is deferred until the Aboriginal Place assessment is complete.

Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The Gundungurra Aboriginal Heritage Association Inc (GAHAI) made an application under Section 10 of the Commonwealth *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (the ATSIHP Act), seeking long term preservation and protection of a significant Aboriginal area being the area known as Burratorang Valley, near Warragamba, New South Wales. This includes the upstream area of the Warragamba Dam.

Section 10 of the ATSIHP Act requires the Commonwealth Minister to consider if this is “a significant Aboriginal area” and if it is “under threat of injury or desecration” before deciding whether to make a declaration to preserve and protect the specified area.

The EIS makes clear there will be certain injury and desecration to tangible Aboriginal cultural heritage that will occur from temporary flooding in this significant Aboriginal area.

The Advisory Committee strongly recommends that the ATSHIP application is fully considered before a decision is made on this project proposal

The EIS suggested mitigation strategy to:

“Aboriginal cultural heritage management plan to address intergenerational equity including recording of Aboriginal cultural heritage”

will not address intergenerational equity by recording sites for future generations of Aboriginal and non-Aboriginal people. More precious archaeological sites will be damaged or lost. The culturally significant Gurrangatch and Mirrigan creation story will be further and significantly impacted.

The Advisory Committee fully supports the strong objection to the project by Aboriginal people.

United Nations Declaration on the Rights of Indigenous Peoples

The United Nations Declaration on the Rights of Indigenous Peoples¹⁹ (UNDRIP) is a comprehensive statement addressing the human rights of Indigenous peoples. It was adopted in 2007 and ratified by the Australian Government in 2009.

The Advisory Committee considers Article 32 of relevance to this project:

1. Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.
2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to **obtain their free and informed consent prior to the approval of any project affecting their lands**

¹⁹ <https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html>

or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.

The Advisory Committee is concerned that the Aboriginal community, particularly the Gundungurra, have not given their free, prior and informed consent to the project.

CLIMATE CHANGE

The EIS was required under the SEARs to:

- assess the risk and vulnerability of the project to climate change in accordance with the current guidelines.
- quantify specific climate change risks with reference to the NSW Government's climate projections at 10km resolution (or lesser resolution if 10km projections are not available)

The tables below indicate the rainfall projections used in the EIS and the NSW Government's climate projections at 10km resolution (NARClIM) taken from the Regional Snapshots for the areas that contribute to the Warragamba catchment.

2030 Rainfall	EIS	NARClIM Sydney	NARClIM Central West	NARClIM SE /Tablelands
	% change	% change	% change	% change
Season				
Summer	0 to +5	-14 to +15	-15 to +16	-18 to +20
Autumn	+5 to +10	-22 to +43	-11 to +42	-12 to +38
Winter	-5 to +5	-19 to +23	-12 to +3	-12 to +10
Spring	-5 to 0	-27 to +17	-25 to +11	-1 to -17
Mean		-13 to +18	-12 to +11	-10 to +6

2070 Rainfall	EIS	NARClIM Sydney	NARClIM Central West	NARClIM SE /Tablelands
	% change	% change	% change	% change
Season				
Summer	+10 to +20	-7 to +28	-10 to +26	-8 to +33
Autumn	+10 to +20	-15 to +42	-9 to +45	-6 to +45
Winter	0 to +10	-38 to +38	-25 to +34	-20 to +11
Spring	0 to +10	-14 to +37	-25 to +17	-2 to -19
Mean		-9 to +24	-10 to +22	-6 to +10

Clearly the EIS has not addressed the requirements given inconsistency between its rainfall projections and the NARClIM data.

The EIS is negligent in assessment of risk to biodiversity in respect to climate change.

Potential risks are not limited to frequency of inundation. Climate change is likely to cause synergistic impacts such as higher temperatures and increased frequency of heatwaves reducing the resilience of individual species to other impacts such as inundation and/or fire.

HISTORIC HERITAGE

There has been no revision of the history of the general area since the dam was originally constructed and there was little broad understanding of the history of the area when that was undertaken. In order to make appropriate heritage assessments it is necessary to understand the context of the site and any cultural heritage that remains in it. The absence of the significant history of the agricultural community, comprised of both Aboriginal and non-Aboriginal people is notable here.

No subsurface investigations were undertaken with the assessment of archaeological potential being based on:

“knowledge of similar sites and site formation processes, the historical background and predicted robustness of potential archaeological remains.”²⁰

There are no details as to what this modelling is based on and it seems unlikely that there are sites similar to this in terms of its geology, topography, pre-history and history that are sufficiently similar use as a model.

The Advisory Committee is concerned about the lack of information about modelling in the EIS.

Upstream two survey days were undertaken in the area (17.11.2017 and 8.03.2018)²¹ to be inundated and appear to have focussed on the infrastructure of the dam itself and not examined cultural heritage that will be impacted in the event of weather extremes. The focus appears to have been on anticipated inundation not any special or more extreme weather conditions. Areas that may be impacted in these extremes include a State Heritage Listed walking track - the Coxs River Arm track [not identified in the EIS], the town of Yerranderrie (isolated by road during inundation) and Joorilands Homestead, all of which are state heritage significant (mostly) listed elements of non-Aboriginal cultural heritage in that area. In addition, the NPWS HHIMS register indicates there are a number of other recorded items within the inundation area including yards at Murphys Flat, ruins across the river north of Murphys, Orange Tree Flat house on Little River. Old Cedar Rd, Black Dog Ridge and Kiaramba Hut.

Joorilands Homestead will be impacted on significantly by inundation – many of its elements are timber and they will be impacted on during inundations due to the time that it would take for it to subside. The site is currently unlisted and the EIS states repeatedly that no heritage study has been done by the current owners. It further states that ‘The 2006 Heritage Study prepared for the former NSW Department of Environment and Conservation could not be sourced during the production of the assessment’²² and yet no application was made to NPWS to access their H-HIMS register which contains not only a listing assessment document but also a conservation management strategy for the site.

The Advisory Committee is concerned that other registers and similar appropriate sources of heritage information have not been consulted during the development of the EIS.

Downstream: no physical assessments or archival or documentary reviews were undertaken for sites downstream of the dam.²³ There are currently 214 listed items located downstream: 3 WHL, 4 NHL, 15, SHR, 184 LEP, 1 SEPP and 17 Section 170 Heritage and Conservation Register Listed items. This does not include sites not yet surveyed. In an extreme weather event it is possible that a spill would be necessitated in order to maintain the structural integrity of the dam wall the impact would be significant. A more thorough study needs to be conducted in order to mitigate against the potential impacts on the hundreds of significant items downstream as well.

Appropriate curtilage for many of the sites has not been appropriately established. The currently established curtilage has been based on ‘publicly available digital mapping’²⁴ with no additional mapping or surveying undertaken for any sites either within the construction zone, or up and downstream. Sites that have no digital mapping have not had their curtilage established.

²⁰ Chapter 17: Non Aboriginal Cultural Heritage - Warragamba Dam Raising EIS p8

²¹ Ibid p10

²² Appendix I: P91

²³ Appendix I: P91

²⁴ Ibid

The Advisory Committee recommends that given the nature of this proposal, curtilage is critical and needs to be established appropriately in the EIS.

AREA OF IMPACT

The impact on the GBMA is much greater than the 304 hectares stated in the EIS implies, as the integrity of the OUV includes adjoining lands.

The EIS proposes that because 304 hectares is 0.03% of entire World Heritage property, then the project impacts will not be significant. This is not a relevant metric to assess impacts on World Heritage values. The assessment should be the impact on OUV in the 304 hectares. The habitats and values in the GBMA are not distributed equally across whole property. There is no benchmark percentage of area impacted that indicates significance of impact.

The Advisory Committee is concerned that the diminution of values on any area of land with OUV is significant.

Many of the species, habitats and ecological communities for which the property was inscribed on the World Heritage list are threatened, endemic to the area or have a restricted range. By definition this means they are not widespread and abundant across the entire property. Therefore, the impact on those values - species, habitats and communities within the impact area must be assessed at a local not regional or property wide scale i.e. 304 hectares of lands with World Heritage status is 100% of 304 hectares with World Heritage status.

The Burragorang Valley is unique within the GBMA so impact on it cannot be assessed as a % area of the entire property. The good condition and quality of these habitats and their suitability to support species of high conservation values and adaptation and evolution of these values including critically endangered species means their contribution to the OUV is significant.

The upper and lower elevation for the impact area should include 0-2.78 m in the 'study' area. Although the area between the full supply level (FSL) (0.0m) and 2.78m above FSL is temporarily inundated under current operations, under the proposed changes to operation, this area will be significantly impacted by additional depth and duration of inundation under operation at 14m spillway height. The EIS does not include assessment of the impact of increased frequency, duration and depth of inundation in this area – it must be included in both the assessment of impact on all values but also included in any calculations of offset areas for OUV. It is unclear how the extent of the area impacted was calculated – ie. as a flat horizontal plane or taking into account the contours of the property. For steep areas the difference between these two calculations could be significant and is critical to determine offset requirements.

The Advisory Committee recommends the extent of the impact area should be expanded and evidence provided as to how the area was calculated.

OFFSETS

The EIS Risk matrix identifies Environmental consequences for upstream areas as Extreme due to loss of a nationally or internationally recognised threatened species or vegetation community, and permanent loss of ecosystem function on a landscape scale (Table 8-17).

This is to be dealt with by an offsets program, which because of the particular nature of the impacts (assumed by the EIS to be total destruction) and geographical nature of the valleys cannot offset any of the areas with like for like habitats and environments. This loss is countered by accountancy-style compensations providing on-paper land changes that do not replace the authenticity of the habitats lost.

No financial costs of the proposed offsets compensation are provided in the EIS. Costs are downplayed by proposed land transfers of state land.

The Advisory Committee recommends monetary figures be included in the overall financial examination of the project.

The whole area of 1,400 ha of the project's potential operational upstream impact area, not just the 304 ha of GBMA, should be offset with a similar or larger area containing OUV values of similar relevance such as riparian or water dependent biota values, as these adjacent areas are the only ones with similar values that could provide offsets.

The Advisory Committee recommends that because of the international agreements and standing of World Heritage the OUV of compensatory areas are likely to need international assessment before any decision is made on the project.

ACCESS

The EIS states that there is unlikely to be material damage to roads and fire trails however notes that if increased inundation leads to damage to trails, access may be affected for longer periods which can impact access for management activities. The EIS does not consider the impact either by erosion or sedimentation to road, trails, bridges and culverts as a result of inundation.

The EIS states that temporary inundation will not impact on recreational access due to the area of inundation being Schedule 1 lands where access is restricted.

The Katoomba to Mittagong Walk has two 'walking corridors' through the Schedule 1 Catchment, where walking is permitted. The proposed inundation will impact on access to those corridors at the Wollondilly River and Cox's River crossings. The EIS does not assess the impact inundation on recreational access to this walking route.

SEDIMENTATION AND INCREASED WEEDS

Even irregular inundation events will cause depositions of silt that will be rapidly colonised by exotic weed species particularly agricultural weeds that grow vigorously in the enriched soil and compete and stop recruitment of native species. At present the areas that will be flooded are relatively undisturbed, but once the weeds have established in a ponding event they will be impossible to remove. Silting will also affect the steeper sandstone slopes which are currently pristine but will collect silt residues following flooding with weed species establishing in the crevices.

The EIS assesses that the risk of erosion and sedimentation is low or medium, however the impact of erosion and sedimentation is likely to be higher, particularly if there are several inundation events occurring with an interval that is too short for vegetation to recover. This cumulative impact of multiple inundation events is not considered by the EIS.

The EIS does not give consideration to weed and pest issues created by increased inundation. It is likely that the death of vegetation, increased erosion and siltation will provide habitat for weeds and pest species such as feral pigs and deer.

The Advisory Committee advises that the impacts from erosion and sedimentation is high and that the cumulative impact on the OUV is addressed.

CUMULATIVE IMPACTS

The assessment has not adequately addressed cumulative impact. It has not defined what aspect of cumulative impact they have addressed i.e. multiple extreme events that are likely to impact on the species, habitats and processes that support persistence of species. For

example, the 2019-20 bushfires followed an extreme drought and were followed by an extreme flood event. When these extreme events occur again in sequence or concurrently, the impact on the inundation area will be compounded and so the risk of impact on all values within the inundation area should be considered as significant.

The EIS assesses cumulative impacts of other projects in the vicinity. It does not consider the cumulative impacts of other factors such as the 2019-20 bushfires, climate change, or for Aboriginal heritage the impact of the existing dam. The EIS should consider the cumulative impacts of 2019-20 bushfires, climate change, the destruction of Aboriginal heritage by the existing dam and sedimentation, weeds and pest species.