

IUCN Conservation Outlook Assessment 2014 **(archived)**

Finalised on 12 November 2014

Please note: this is an archived Conservation Outlook Assessment for Greater Blue Mountains Area. To access the most up-to-date Conservation Outlook Assessment for this site, please visit <https://www.worldheritageoutlook.iucn.org>.

Greater Blue Mountains Area

SITE INFORMATION

Country:

Australia

Inscribed in: 2000

Criteria:

(ix) (x)

Site description:

The Greater Blue Mountains Area consists of 1.03 million ha of sandstone plateaux, escarpments and gorges dominated by temperate eucalypt forest. The site, comprised of eight protected areas, is noted for its representation of the evolutionary adaptation and diversification of the eucalypts in post-Gondwana isolation on the Australian continent. Ninety-one eucalypt taxa occur within the Greater Blue Mountains Area which is also outstanding for its exceptional expression of the structural and ecological diversity of the eucalypts associated with its wide range of habitats. The site provides significant representation of Australia's biodiversity with ten percent of the vascular flora as well as significant numbers of rare or threatened species, including endemic and evolutionary relict species, such as the Wollemi pine, which have persisted in highly-restricted microsites. © UNESCO

SUMMARY

2014 Conservation Outlook

Good with some concerns

The site has a high value for the protection of natural biological processes but improved management of vertebrate pests, fire and the impacts of coal mining and urban development in adjacent areas is required. Most of the current threats are from activities outside the WHA boundary including coal mining. Although these threats are high they are capable of being resolved by better planning and management. However, the large size and extensive perimeter of the site and the existence of major enclaves (inholdings) is creating management difficulties. Achieving a high level of conservation will require even greater levels of cooperation particularly with regard to protection of the GBMWA in its buffer areas.

Current state and trend of VALUES

Low Concern

Trend: Stable

The site has a high value for the protection of natural biological processes but improved management of vertebrate pests, fire and the impacts of coal mining and urban development in adjacent areas is required. Most of the natural plant communities and habitats of the site remain close to pristine. However, the site is threatened by potential spread of vertebrate pests, and weeds.

Overall THREATS

High Threat

Most of the current threats are from activities outside the WHA boundary including coal mining. Although these threats are high they are capable of being resolved by better planning and management of these buffer areas. The main potential threats are from urban development in the buffer area, the proposed raising of the Warragamba Dam and climate change. While all of the threats rank

'high' all except climate change are capable of resolution by national and state land use coordination.

Overall PROTECTION and MANAGEMENT

Mostly Effective

The site has an effective management system in place and benefits from strong legal framework, but the relatively high boundary to area ratio is such that the site is exposed to many threats from outside. Major efforts have been made to coordinate management but problems remain because of the need to provide improved protection from threats from outside the site boundaries.

FULL ASSESSMENT

Description of values

Values

World Heritage values

► **A centre of diversification for the Australian scleromorphic flora**

Criterion:(ix)

The Greater Blue Mountains include outstanding and representative examples in a relatively small area of the evolution and adaptation of the genus *Eucalyptus* and eucalypt-dominated vegetation on the Australian continent. The site contains a wide and balanced representation of eucalypt habitats including wet and dry sclerophyll forests and mallee heathlands, as well as localised swamps, wetlands and grassland. It is a centre of diversification for the Australian scleromorphic flora, including significant aspects of eucalypt evolution and radiation. Representative examples of the dynamic processes in its eucalypt-dominated ecosystems cover the full range of interactions between eucalypts, understorey, fauna, environment and fire. The site includes primitive species of outstanding significance to the evolution of the earth's plant life, such as the highly restricted Wollemi pine (*Wollemia nobilis*) and the Blue Mountains pine (*Pherosphaera fitzgeraldii*). These are examples of ancient, relict species with Gondwanan affinities that have survived past climatic changes and demonstrate the highly unusual juxtaposition of Gondwanan taxa with the diverse scleromorphic flora (R31; R32).

► **An outstanding diversity of habitats and plant communities**

Criterion:(x)

The site includes an outstanding diversity of habitats and plant communities

that support its globally significant species and ecosystem diversity (152 plant families, 484 genera and c. 1,500 species). A significant proportion of the Australian continent's biodiversity, especially its scleromorphic flora, occur in the area. Plant families represented by exceptionally high levels of species diversity here include Myrtaceae (150 species), Fabaceae (149 species), and Proteaceae (77 species). Eucalypts (*Eucalyptus*, *Angophora* and *Corymbia*, all in the family Myrtaceae) which dominate the Australian continent are well represented by more than 90 species (13% of the global total). The genus *Acacia* (in the family Fabaceae) is represented by 64 species. The site includes primitive and relictual species with Gondwanan affinities (*Wollemia*, *Pteris*, *Lomatia*, *Dracophyllum*, *Acrophyllum*, *Podocarpus* and *Atkinsonia*) and supports many plants of conservation significance including 114 endemic species and 177 threatened species. The diverse plant communities and habitats support more than 400 vertebrate taxa (of which 40 are threatened), comprising some 52 mammal, 63 reptile, over 30 frog and about one third (265 species) of Australia's bird species. Charismatic vertebrates such as the platypus and echidna occur in the area. Although invertebrates are still poorly known, the area supports an estimated 120 butterfly and 4,000 moth species, and a rich cave invertebrate fauna (67 taxa) (R31; R32).

Assessment information

Threats

Current Threats

High Threat

Most of the current threats are from activities outside the WHA boundary including coal mining. Although these threats are high they are capable of being resolved by better planning and management of the buffer areas (R10).

► Tourism/ Recreation Areas

High Threat

Inside site

The development of the Emirates 6 star resort inside the Wollemi National Park could be regarded as a precedent for more widespread private enterprise development of hotels in the World Heritage Area under new legislation (R27). This was not an intentional decision however, but rather reflects a land-swap that was halted due to a native title claim (which may one day be resolved).

► Water Pollution

High Threat

Inside site

The Wollangambe, Wolgan and Colo Rivers are affected by polluted water from collieries. The Colo is a dedicated Wild River (R2, R15).

► Invasive Non-Native/ Alien Species

High Threat

Inside site

The main current threat is from the root rot pathogen *Phytophthora cinnamomi* which causes vegetation dieback. It is spread by human activities (including boots, bikes and vehicles) and moves from ridge tops down slopes and water courses (R4, R6, R25, R26).

► Other

High Threat

Inside site

Hazard reduction to protect urban areas in the central corridor interferes with natural processes and threatens the Grose Valley Wilderness. (R9, R14, R20, R30). Climate change impacts could shift fire regimes in what is already one of the world's most fire prone ecosystems.

► Other

High Threat

Inside site

Long wall coal mining close to the boundary of the World Heritage Area threatens cliff collapse, water pollution, lowering of water tables, desiccation

of swamps and the loss of water in lakes. In the Thirlmere Lakes the water levels have been reduced by 1.5 to 2.5 metres. Subsidence from mining causes drying out of peat, swamp collapse and the killing of swamp vegetation. The threats are greatest in the Gardens of Stone area around Newnes Plateau (R12, R13, R28). This may permanently alter water flow into the WHA that maintains stream flow.

Potential Threats

High Threat

The main potential threats are from urban development in the buffer area, the proposed raising of the Warragamba Dam and climate change. They are all 'high' threats. The first two can be resolved in favour of conservation by means of policies which give precedence to the protection of the WHA (R10).

► Water Pollution

High Threat

Inside site

Exploration for coal seam gas has commenced in the Putty Enclave. While there are no up to date reports on progress if this development goes ahead it could threaten the Colo Wild River and the Wollemi Wilderness with water pollution.

► Dams/ Water Management or Use

High Threat

Inside site

The proposal to raise the height of the Warragamba Dam wall by 23 meters would, if implemented, inundate parts of the Wollondilly, Kudumba, Kowmung and Cox Rivers in the Nattai, Blue Mountains, and Kanangra Boyd National Parks, the Nattai and Kanangra Boyd Wilderness Areas and the Kowmung Wild River, killing vegetation and depositing sediment (R8, R29).

► Other

High Threat

Inside site

There is a proposal for an intensive (22,000) duck rearing enterprise in the

Howes Valley in the Putty Enclave. This threatens pollution in the MacDonald River in Yengo National Park (R1).

► **Housing/ Urban Areas**

High Threat

Inside site

The Blue Mountains National Park is threatened by changes to the Local Environment Plan in the central corridor. This and a new Growth Plan for the Sydney Metropolitan Area could result in denser urban development in the central corridor causing hardening of surfaces, greater storm water run off and water and air pollution (R5 and R11).

► **Temperature changes**

High Threat

Inside site

There is concern that climate change could result in more virulent forms of *Phytophthora cinnamomi* and affect natural fire regimes through a greater incidence of fires (R3).

Protection and management

Assessing Protection and Management

► **Relationships with local people**

Highly Effective

The nomination of the World Heritage Area was strongly supported by local communities and the Blue Mountains City Council. There is an Advisory Committee which includes local representatives and traditional owners. There is also a Greater Blue Mountains Aboriginal Reference Group. A Strategic Plan (R23) has been developed which helps to coordinate management of the 8 protected areas which make up the GBMWA.

► **Legal framework and enforcement**

Mostly Effective

The site has an adequate legal framework which ensures effective coordination between the federal, State and local Governments and their agencies. The protected areas within the WHA are protected by means of the federal Environment Protection and Biodiversity Conservation Act, the National Parks and Wildlife Act, and the Wilderness Act (R23). However there is no formal buffer zone surrounding the property.

► **Integration into regional and national planning systems**

Mostly Effective

The Strategic Plan for the Greater Blue Mountains World Heritage Area, 2009 (R23) provides for the integration of management. It is to be reviewed within 10 years. Additional coordination is provided through the Water Catchment Management Act.

► **Management system**

Mostly Effective

The property consists of seven adjacent national parks and single karst conservation reserve (R32). There are management plans for each of the 8 protected areas in the WHA but some are in need of updating (R16- R22, and R24). The Greater Blue Mountains World Heritage Area Strategic Plan (R23) is an outstanding example of the coordination of planning and management of an area of 1,181,000 hectares and 8 protected areas. It is also a good example of local (14 Local Government Authorities), State, and federal cooperation.

► **Management effectiveness**

Mostly Effective

The EPBC Act, the National Parks and Wildlife Act and the Wilderness Act and Strategic Plan are the main planning tools but the relatively high boundary to area ratio is such that the WHA is exposed to many threats from outside. This requires more effective planning and management of buffer areas including enclaves and in particular the lands in the Warragamba Catchment (R23 and R10).

► **Implementation of Committee decisions and recommendations**

Data Deficient

No recent Committee Decisions.

► **Boundaries**

Some Concern

The boundary of the GBMWA is relatively lengthy and the WHA includes some major enclaves. Boundary anomalies affecting integrity have been drawn attention to in the Retrospective Statement of Outstanding Universal Value (R32). The GBMWA Advisory Committee has recommended extensive expansion and modification of the WHA boundaries.

► **Sustainable finance**

Mostly Effective

The site is managed under finance for the NPWS (NSW) and National Heritage Trust (R23).

► **Staff training and development**

Mostly Effective

Staff training is executed through the NSW National Parks and Wildlife Service (Strategic Plan R23).

► **Sustainable use**

Mostly Effective

The protected areas in the GBMWA make a major contribution to sustainable land use, particularly through the catchment protection and water supply (Strategic Plan, R23).

► **Education and interpretation programs**

Mostly Effective

There are a large number of national and international visitors to the GBMWA and visitor information centres are located at the major attraction

hubs (Strategic Plan, R23).

► **Tourism and interpretation**

Mostly Effective

Information centres are located at The Three Sisters and Govett's Leap.

► **Monitoring**

Mostly Effective

The Blue Mountains World Heritage Institute works to support the conservation of the property through applied research and community engagement. This includes some aspects of monitoring of the integrity of the ecosystems.

► **Research**

Mostly Effective

Research is carried out by the federal and state agencies and the Blue Mountains World Heritage Institute (Strategic Plan R23), as well as universities. Assessment is continuing into the additional national and heritage values of the site and potential extensions.

Overall assessment of protection and management

Mostly Effective

The site has an effective management system in place and benefits from strong legal framework, but the relatively high boundary to area ratio is such that the site is exposed to many threats from outside. Major efforts have been made to co-ordinate management but problems remain because of the need to provide improved protection from threats from outside the site boundaries.

► **Assessment of the effectiveness of protection and management in addressing threats outside the site**

Some Concern

There is a considerable concern because of long boundary and major enclaves. Attention is needed to the additional values and areas which would

add to the OUV and the integrity of the WHA.

► **Best practice examples**

The GBMWA is one of the only sites in Australia with a dedicated site based research and community engagement institute - the Blue Mountains WH Institute which is a not for profit organisation.

The Greater Blue Mountains World Heritage Area Strategic Plan (R23) is an outstanding example of the coordination of planning and management of an area of 1,181,000 hectares and 8 protected areas. It is also an excellent example of local (14 Local Government Authorities), State, and federal cooperation.

State and trend of values

Assessing the current state and trend of values

World Heritage values

► **A centre of diversification for the Australian scleromorphic flora**

High Concern

Trend:Data Deficient

The site has a high value for the protection of natural biological processes but improved management of vertebrate pests, fire and the impacts of coal mining and urban development in adjacent areas is required. (R1, R15, R24, R25 and R30)

► **An outstanding diversity of habitats and plant communities**

Low Concern

Trend:Stable

Most of the natural bushland of the site remains close to pristine. The plant communities and habitats occur as an extensive, largely undisturbed matrix almost entirely free of structures, earthworks and other human intervention (R32). However, the site is threatened by potential spread of vertebrate pests, and weeds. More than 60 declared noxious weeds are known to occur

in the GBMWA and many hundreds of environmental weeds of concern have the potential to invade disturbed areas (R23).

Summary of the Values

► Assessment of the current state and trend of World Heritage values

Low Concern

Trend: Stable

The site has a high value for the protection of natural biological processes but improved management of vertebrate pests, fire and the impacts of coal mining and urban development in adjacent areas is required. Most of the natural plant communities and habitats of the site remain close to pristine. However, the site is threatened by potential spread of vertebrate pests, and weeds.

Additional information

Key conservation issues

► Coal seam gas extraction

Local

Pollution of wilderness rivers(R18) and possible changes to water flow to WHA

► Raising of Warragamba Dam

Local

Drowning of areas and silting (R8, R29)

► Pollution from coal mining

Local

Pollution of wilderness rivers (R2,R7,R13,R15,R28)

► Intensive farming in Putty enclave

Local

Pollution of rivers (R1)

► **Climate change**

Global

Interference with natural processes and systems (R6,R23). Reduction and loss of endangered highland swamps, intensification of bushfire, reduction and loss of mountain top communities

► **Mining subsistence**

Local

Draining of swamps and lakes (R2, R7,R12, R13, R15, R28), changes to water flow to the WHA, degradation and loss of endangered ecological communities

► **Changes to fire regime**

Local

Hazard reduction activities impact on natural processes (R14, R30)

► **Tourist development**

Local

Private hotel development, 4WDs and horse riding (R27)

► **Pest spread**

National

Interference with natural processes and systems (R4,R6,R25,R26)

Benefits

Understanding Benefits

► **Is the protected area valued for its nature conservation?**

Exceptional representation of Eucalyptus dominated sclerophyll ecosystems and biodiversity

► **Flood prevention, Water provision (importance for water quantity and quality), Pollination**

The site provides major ecosystem services to Sydney region by water flow and quality, cleaning air, providing pollinators, regulating floods and drought flow of water to rivers, stopping river sedimentation, etc.

► **Water provision (importance for water quantity and quality)**

The site protects the catchment for Australia's largest city, Sydney. Joint management arrangements are in place between the NPWS and catchment management authorities.

► **Outdoor recreation and tourism**

Highly attractive natural scenery and extensive wilderness areas - close proximity to Sydney (4.5 million people)

► **Importance for research**

Valuable for explanation of natural processes in evolution of landscapes

► **Contribution to education**

Valuable for building knowledge. Close to several Universities.

Summary of benefits

Extensive distinctive natural area close to major city.

Projects

Compilation of active conservation projects

No	Organization/ individuals	Project duration	Brief description of Active Projects
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1	Blue Mountains World Heritage Institute	Research into ecosystems and threats. Research into historical and social aspects. Community engagement.
2	GBMWA Management Committee	Oversight of management and strategic plan
3	Blue Mountains World Heritage Institute and GBMWA Advisory Committee	Development of appropriate planning and management standards for GBMWA enclaves and buffer areas
4	GBMWA Advisory Committee	Preparation of Strategic Plan and assessment of national heritage nominations for additional values
5	Blue Mountains Conservation Society	Education re OUV of GBMWA
6	Greater Blue Mountains Aboriginal Reference Group	Development of knowledge re Aboriginal heritage of GBMWA

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