IUCN Conservation Outlook Assessment 2017 **(archived)**
Finalised on 09 November 2017

Please note: this is an archived Conservation Outlook Assessment for Lord Howe Island Group. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Lord Howe Island Group

SITE INFORMATION

Country:
Australia
Inscribed in: 1982
Criteria:
(vii) (x)

Site description:
A remarkable example of isolated oceanic islands, born of volcanic activity more than 2,000 m under the sea, these islands boast a spectacular topography and are home to numerous endemic species, especially birds. © UNESCO

SUMMARY

2017 Conservation Outlook

Good

Good management is in place and, provided resourcing and commitment to addressing the key threats to World Heritage values are sustained, the values should remain preserved. The outstanding scenic values are likely to remain in good condition and, subject to funding and effective program implementation, the significant natural habitat, rare plants and threatened wildlife are likely to persist in their current or an improved condition. However, it is crucial that invasive species eradication projects continue and are successfully implemented. Threats from climate change and rising oceanic temperatures as well as increasing impacts from marine debris require national and international action to reduce threats to some values and in particular the marine environment.

Current state and trend of VALUES

Low Concern
Trend: Deteriorating

Local threats to values are being actively addressed by local management, but are subject to resourcing and other implementation issues. Eradication of cats and pigs in 1980’s had significant biodiversity benefits and eradication of wild goats has also shown significant benefits. Currently planned actions should go a long way to protecting World Heritage values when they are complete. However, it will be crucial that the eradication programmes continue. Ongoing impact of plastic ingestion and road kill to Flesh footed Shearwater also need to be addressed. Other threats, in particular those likely to impact on the marine environment, are beyond the control of local managers and their effect on values is difficult to predict. They require national and international response to be mitigated.

Overall THREATS

High Threat

The values of the site are significantly threatened by rodents, weeds, African Big-headed Ants, pathogens (Phytophthora and Myrtle Rust), oceanic warming and marine debris. Other threats associated with the settlement and tourism activity include those related to urban and transport infrastructure, unregulated water extraction and incremental localised impacts on vegetation. Weeds, pathogens, African Big-headed Ants and rodents present the highest risk to biodiversity values of the site. There are detailed plans in place to address these threats; however an ongoing strong financial and management commitment is required to successfully implement these key programs. The proposed lengthening of the airport runway is a risk to marine and threatened species values; however, this could be minimized or avoided is alternate solutions or careful design. Oceanic warming is a threat to marine values.

Overall PROTECTION and MANAGEMENT

Highly Effective

The protection and management of the Lord Howe Island Group is generally highly effective. There are some concerns about the stability of recurrent funding for routine management tasks. Key conservation activities have either uncertain funding or are subject to approval and community acceptance. On 27 September 2017 the Australian Government announced funding of AUD $177,000 per annum for five years from July 2018 to assist with management of the Lord Howe Island Group. The Australian and New South Wales governments each contributed AUD $4.5 million (AUD $9 million total) to deliver the Rodent Eradication Project.

FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ **Spectacular and scenic landscape**
Criterion:(vii)

The Lord Howe Island Group is grandiose in its topographic relief and has an exceptional diversity of spectacular and scenic landscapes within a small area, including sheer mountain slopes, a broad arc of hills enclosing the lagoon and Balls Pyramid rising abruptly from the ocean. It is considered to be an outstanding example of an island system developed from submarine volcanic activity and demonstrates the nearly complete stage in the destruction of a large shield volcano. (SoOUV, 2012)

▶ **Outstanding underwater vistas**
Criterion:(vii)

Having the most southerly coral reef in the world, it demonstrates a rare example of a zone of transition between algal and coral reefs. Many species are at their ecological limits, endemism is high, and unique assemblages of temperate and tropical forms cohabit (SoOUV, 2012).

▶ **Outstanding example of the development of a characteristic insular biota**
Criterion:(x)

The Lord Howe Island Group is an outstanding example of the development of a characteristic insular biota that has adapted to the island environment through speciation. A significant number of endemic species or subspecies of

plants and animals have evolved in a very limited area. The diversity of landscapes and biota and the high number of threatened and endemic species make these islands an outstanding example of independent evolutionary processes (SoOUV, 2012).

▶ **Rare plants and threatened wildlife**
Criterion:(x)

Lord Howe Island supports a number of endangered and endemic species or subspecies of plants and animals, for example the Lord Howe Woodhen, which at time of inscription was considered one of the world's rarest birds. While sadly a number of endemic species disappeared with the arrival of people and their accompanying species, the Lord Howe Island Phasmid, the largest stick insect in the world, still exists on Balls Pyramid. The islands are an outstanding example of an oceanic island group with a diverse range of ecosystems and species that have been subject to human influences for a relatively limited period (SoOUV, 2012).

Assessment information

Threats

Current Threats
High Threat

Weeds, pathogens, African Big-headed Ants and rodents present the highest ongoing risk to biodiversity values of the site. There are detailed plans in place to address these threats; however, an ongoing strong financial and management commitment is required to successfully implement these key programs. Increased biosecurity is required to secure investments made in eradicating key pests.

▶ **Dams/ Water Management or Use**
Data Deficient

Inside site, extent of threat not known

There is evidence of saltwater intrusion below low lying areas, however, its impact on the OUV of the site is unclear.

► Household Sewage/ Urban Waste Water

Data Deficient
Inside site, extent of threat not known

New waste water strategy is in place and new sewage systems are being installed across island. The impacts of unregulated groundwater extraction and injection of hyper saline water from unapproved desalination plants at lodges needs to be assessed and addressed to protect outstanding underwater values.

► Ocean acidification, Temperature extremes

High Threat
Inside site, widespread(15-50%)

Coral bleaching has previously been observed at Lord Howe Island with a severe bleaching event recorded in 2010 (Harrison et al., 2010) and studies have shown that dominant coral taxa at subtropical reefs are highly susceptible to thermal stress (Dalton et al., 2011). However, while coral reefs in other parts of Australia have been severely affected by the recent 2016 bleaching events, minimal or no bleaching has been reported on Lord Howe Island (Australian Coral Reef Society, 2016).

► Housing/ Urban Areas

Low Threat
Inside site, localised(<5%)
Outside site

There are strong planning controls in place however despite this there is a small incremental loss of significant native vegetation through deliberate damage to vegetation or disturbance associated with use of adjacent residential land (Board minutes and records).

► Solid Waste

High Threat

Outside site

Plastic ingestion by seabirds leading to increased mortality. Marine debris is not coming from on-island but from the high seas and therefore is difficult to control (Key Threatening Process listing, local research). All solid waste is shipped off Lord Howe Island.

► Invasive Non-Native/ Alien Species

High Threat
Inside site, widespread(15-50%)

Invasive species include African Big-headed Ant, Bleating Tree Frog, Garden Skink, Phytophthora. There is also a risk of further occurrences of Myrtle Rust coming to island from mainland Australia, which could impact all endemic mytaceous plants. Significant threats are being managed with aim of eradication of key weed species through implementation of a comprehensive Biodiversity Management Plan (2007), Weed Management Strategy (2016) and Lord Howe Island Biosecurity Strategy (2016). The programme is currently partly funded until 2018 but it requires secure funding up to $500K per year to achieve eradication targets (IUCN Consultation, 2017).

► Invasive Non-Native/ Alien Species

High Threat
Inside site, widespread(15-50%)

Introduced rodents, the Ship Rat (Rattus rattus) and the House Mouse (Mus musculus), have been having significant impacts on the values of the site, such as the palm forest and some threatened species. The Rodent Eradication Project has received sufficient funding from the Federal budget for planning and implementation and the decision if to proceed with the operational phase was taken at the Lord Howe Island Board in September 2017 with the implementation targeted for June-August 2018 (http://www.lhib.nsw.gov.au/environment/environmental-programs/rodent-eradication).

Potential Threats

High Threat

The proposed lengthening of the airport runway would pose a risk to marine

values and threatened species; however, this could be minimized or avoided via alternate solutions or careful design. Oceanic warming is a threat to marine values.

► Flight Paths

High Threat
Inside site

Possible need to extend runway by 400 metres into the lagoon to allow for continued viability of commercial air access to island or seek alternative aircraft that can use current airstrip. This requirement is based on advice from airlines that no suitable aircraft will be available in the future to service the island on the existing runway. Unless an alternate aircraft can be sourced the runway will need extending. The degree of impact of this extension is dependent on the design solution for the runway extension.

► Ocean acidification, Temperature extremes

High Threat
Inside site, throughout(>50%)
Outside site

Further ocean warming and acidification will likely lead to more significant impacts on coral reefs within the property.

Protection and management

Assessing Protection and Management

► Relationships with local people

Mostly Effective

Strong local control of decision-making through majority of Islander members on the Board, however the relationship between the Board and local community has been strained by the rodent eradication project proposal. (Governance Review 2012)

► Legal framework

Mostly Effective

Strong legal framework at National, State and local levels is in place. Much of the site is in a permanent park preserve, and development is controlled to protect World Heritage Values (Local Environmental Plan). The World Heritage values of the Lord Howe Island Group are protected as a matter of national environment significance under the Australian Government's Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Any new development proposal in the property will be subject to assessment and approval under the EPBC Act if an action is considered likely to have significant impacts on World Heritage values and other protected matters, such as threatened species.

► Enforcement

Mostly Effective

The LHIB and the NSW OEH carry out some enforcement including biosecurity inspections.

► Integration into regional and national planning systems

Highly Effective

LHI local plans are consistent with and well integrated into State and National planning frameworks (SOUV, 2012). LHI Biodiversity Management Plan 2007 is a multi-agency approved recovery plan. Local, State and National legislation complement each other to help protect WH values.

► Management system

Highly Effective

Competent and professional local management team with good backup from other local and State agencies. Recent change in governance moves management from the New South Wales (NSW) Parks and Wildlife agency to Premier and Cabinet, while retaining reporting to the NSW Minister for the Environment, with possible change of emphasis and experience in protected area management (Government Response to Review of LHI Governance Arrangements 22 August 2013).

► Management effectiveness

Highly Effective

Management is well organised and efficient with strong policy, planning and accountability systems. The property is not included in NSW State of Parks Reporting; however the Lord Howe Island Corporate Plan sets out clear management goals and outcomes and these are reported to the NSW Parliament in an Annual Report.

► Implementation of Committee decisions and recommendations

Highly Effective

The only World Heritage Committee decision after inscription was the one on adoption of the retrospective Statement of Outstanding Universal Value for Lord Howe Island Group in July 2012 (Decision 36COM.8E).

► Boundaries

Mostly Effective

The boundary of the site does not align with marine reserve boundaries. In June 2012 the State of New South Wales clarified the area in hectares and provided an updated map (Lord Howe Island Group map, 2012).

► Sustainable finance

Mostly Effective

No information is available on the overall budget available for the management of the World Heritage site. However, significant funds have been allocated for specific projects, such the rodents eradication project (http://www.lhib.nsw.gov.au/environment/environmental-programs/rodent-eradication).

► Staff training and development

Highly Effective

Well trained and professional staff supported as necessary by NSW Office of Environment and Heritage (NSW OEH) experts. A new cooperative agreement was reached with Port Macquarie Hastings Local Council in 2012 to provide assistance for the Board in dealing with local government matters.

► Sustainable use

Mostly Effective

Cap on visitor accommodation beds is effective but needs stronger enforcement, there is increasing ‘islander’ demand for new housing that will need careful management. Unregulated water extraction and discharge of hyper saline desalinised water need to be addressed based on sustainable extraction and non-polluting discharge measures.

► Education and interpretation programs

Mostly Effective

Generally good programs mostly delivered by commercial operators and volunteers.

► Tourism and visitation management

Mostly Effective

Adequate interpretation for tourists; however there is no comprehensive program for interpretation of World Heritage values. The Lord Howe Island Museum organizes weekly lectures on World Heritage values, and displays to promote the values, and conservation projects.

► Monitoring

Mostly Effective

Good monitoring of inputs and outputs through the Board corporate planning and reporting process, good monitoring of outcomes for project activities such as weed eradication program (Annual Reports, Weed Management Strategy).

► Research

Highly Effective

Wide range of research activities has been undertaken and continues (Biodiversity Management Plan, draft Rodent Eradication Plan, Annual Reports).

Overall assessment of protection and management

Highly Effective

The protection and management of the Lord Howe Island Group is generally highly effective. There are some concerns about the stability of recurrent funding for routine management tasks. Key conservation activities have either uncertain funding or are subject to approval and community acceptance. On 27 September 2017 the Australian Government announced funding of AUD $177,000 per annum for five years from July 2018 to assist with management of the Lord Howe Island Group. The Australian and New South Wales governments each contributed AUD $4.5 million (AUD $9 million total) to deliver the Rodent Eradication Project.

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

Mostly Effective

Because of its inaccessibility and isolation, the site is not subject to significant threats from the outside apart from global issues such as rising ocean temperatures and marine debris. These are beyond the control of local management. There are ongoing threats from pests, which in large are all being addressed.

► Best practice examples

1. Because of its resident community and regular tourism, the site has the potential to become a best practice example for sustainable lifestyles and tourism through implementation and marketing of an independently accredited comprehensive environmental management system.
2. Implementation of the rodent eradication proposal would set a new benchmark in island eradications, with applicability to other islands with permanent populations. 3. The weed eradication program is probably the best example of an island-wide eradication program globally. The eradication of ABHA and Myrtle Rust is about to be declared and these will be the first examples of these pests being eradicated from a subtropical oceanic island.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Spectacular and scenic landscape**

Good
Trend:Stable

Major landscape features remain intact (pers. observation).

▶ **Outstanding underwater vistas**

Low Concern
Trend:Deteriorating

Threats to marine environment from marine debris and rising seas temperatures are having an impact and are not able to be controlled by site managers. Unregulated ground water extraction and pollution of water table by recharge with hyper saline desalinised groundwater further affects these values.

▶ **Outstanding example of the development of a characteristic insular biota**

Low Concern
Trend:Deteriorating

These values have suffered significant impacts from introduced pest and weed species. Comprehensive programs are underway or planned; however, until these are complete conditions will continue to deteriorate (LHI Rodent eradication plan, 2009). Small but incremental habitat loss from development and human activities has also occurred (IUCN Consultation, 2017).

▶ **Rare plants and threatened wildlife**

Low Concern
Trend:Deteriorating

Introduced pest, pathogens and weed species all pose a threat to rare and

endangered plant and animal species of the island. Comprehensive programs are underway or planned; however, until these are complete conditions will continue to deteriorate (IUCN Consultation, 2017).

Summary of the Values

▶ **Assessment of the current state and trend of World Heritage values**

Low Concern

Trend: Deteriorating

Local threats to values are being actively addressed by local management, but are subject to resourcing and other implementation issues. Eradication of cats and pigs in 1980’s had significant biodiversity benefits and eradication of wild goats has also shown significant benefits. Currently planned actions should go a long way to protecting World Heritage values when they are complete. However, it will be crucial that the eradication programmes continue. Ongoing impact of plastic ingestion and road kill to Flesh footed Shearwater also need to be addressed. Other threats, in particular those likely to impact on the marine environment, are beyond the control of local managers and their effect on values is difficult to predict. They require national and international response to be mitigated.

Additional information

Benefits

Understanding Benefits

▶ **Fishing areas and conservation of fish stocks, Livestock grazing areas**

Fishery, grazing and food production

▶ **History and tradition, Wilderness and iconic features**

Local community history, remoteness

- **Outdoor recreation and tourism**

Tourism is the main industry on the island, accounting for some 90% of total visitation.The property offers different marine (beach and reef walking, swimming, snorkelling, scuba diving, fish
feeding, surfing, underwater photography, windsurfing, sea-kayaking, fishing, sightseeing cruises) and terrestrial activities (hiking, bird watching, bike riding, sightseeing) (Gillespie Economics, 2016).

If the rat eradication project is not implemented, further degradation of World Heritage values of LHI would occur, potentially resulting in a decrease in tourism demand (Gillespie Economics, 2016).

- **Importance for research**

Scientific research

- **Soil stabilisation, Water provision (importance for water quantity and quality)**

Water quality and soil stability

Groundwater use is of concern

- **Sustainable extraction of materials (e.g. coral, shells, resin, rubber, grass, rattan, etc)**

Kentia seed, other horticultural species

Summary of benefits

The site provides many local benefits from careful stewardship.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	LHI Board		Weed eradication projects
2	LHI Board		Rodent eradication
3	LHI Board		African Big Headed Ant eradication
4	LHI Board		Pest species eradications - various
5	Marine Parks Authority		Various

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	LHI Board	Weed eradication – securing of funding to fully implement strategy	
2	LHI Board	Pest species and pathogens – securing of funding to complete various projects	

REFERENCES

№	References
1	Dalton, S., Carroll, A.G. 2011. Monitoring coral health to determine coral bleaching response at high latitude Eastern Australian reefs: an applied model for a changing climate. Diversity 2011, 4.
2	Gillespie Economics (2016). Economic Evaluation of the Lord Howe Island Rodent Eradication Project. Final Report. Accessed 10 October 2017.
3	Harrison, P.L., Dalton, S.J., Carroll, A.G. 2011. Extensive coral bleaching on the world's southernmost coral reef at Lord Howe Island, Australia. Coral Reefs (2011) 30:775.
4	Lord Howe Island Annual Report 2011-2012
5	Lord Howe Island Annual Report 2016-2017.
6	Lord Howe Island Biodiversity Management Plan 2007
7	Lord Howe Island Board Corporate Plan 2012
8	Lord Howe Island Board Corporate Plan 2017.
9	Lord Howe Island Board Plant Importation Policy 2011
10	Lord Howe Island Board Quarantine Strategy 2003
11	Lord Howe Island Board Weed Management Strategy 2006
12	Lord Howe Island Board draft Rodent Eradication Plan 2009
13	Lord Howe Island Board. 2015. Plant Importation Strategy 2015
14	Lord Howe Island Governance Review, The Honourable Murray Gleeson AC, 27 June 2012
15	Lord Howe Island Local Environmental Plan 2010
16	Lord Howe Island Permanent Park Preserve Plan Of Management 2010

№	References
17	Lord Howe Island Stock Importation Strategy 2015
18	Lord Howe Island. 2016. Biosecurity strategy.
19	Strategic Plan for the Lord Howe Island Group World Heritage Property 2010
20	World Heritage Committee (2012). Decision 36COM 8E: Lord Howe Island Statement of Outstanding Universal Value (Australia). Accessed 08 September 2017.
21	http://www.lhib.nsw.gov.au/environment/environmental-progra…