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.

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SUMMARY

2014 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. 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: Data Deficient

Local threats to values are being actively addressed by local management and subject to resourcing and other implementation issues currently planned actions should go a long way to protecting World Heritage values when they are complete. 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, oceanic warming and marine debris. Other threats associated with the settlement and tourism activity include those related to urban and transport infrastructure and incremental local impacts on vegetation. Weeds, 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 if 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.
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 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, 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.

► **Household Sewage/ Urban Waste Water**

**Data Deficient**

**Inside site**

Strategy in place for individuals to address current wastewater treatment
issues however lack of funding is a risk to implementation.

► **Chemical changes in oceanic waters**
  
  **Low Threat**  
  **Inside site**  

  Impacts have been observed related to high ocean surface temperatures however to date recovery appears to be adequate (Marine Parks research).

► **Solid Waste**
  
  **High Threat**  
  **Outside site**  

  Plastic ingestion by seabirds leading to increased mortality. Marine debris not coming from on-island but from the high seas so difficult to control (Key Threatening Process listing, local research).

► **Dams/ Water Management or Use**
  
  **Data Deficient**  
  **Inside site**  

  Evidence of saltwater intrusion below low lying areas.

► **Housing/ Urban Areas**
  
  **Low Threat**  
  **Inside site**  
  **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).

► **Invasive Non-Native/ Alien Species**
  
  **Low Threat**  
  **Inside site**  

  Invasive species include African Big-headed Ant, Bleating Tree Frog, Garden Skink, Phytophthora. There is also a risk of Myrtle Rust coming to island from mainland Australia which could impact all endemic myrtaceous plants. Significant threats are being managed with aim of eradication of key weed
species through implementation of a comprehensive Biodiversity Management Plan (2007). The programme is currently adequately funded (until) but it requires secure funding up to $500K per yr to achieve eradication targets (IUCN Consultation, 2014).

▶ **Hyper-Abundant Species**
  - **High Threat**
  - **Inside site**

  Comprehensive funded plan in place for eradication, however implementation is subject to environmental approvals and community concerns. Rodent eradication would open the door to re-introduce ecological equivalent species that were lost from LHI but remain on other Aust Islands (eg Norfolk Island Grey Fantail, Island Warbler, Red-crowned Parakeet and Boobook Owl).

**Potential Threats**

**Low Threat**

The proposed lengthening of the airport runway is a risk to marine and threatened species values, however this could be minimized or avoided via alternate solutions or careful design. Oceanic warming is a threat to marine values.

▶ **Renewable Energy**
  - **Very Low Threat**

  Potential for negative aesthetic impact if not carefully designed and located, however other environmental benefits include reducing diesel use and pollution risks associated with its transport.

▶ **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.

**Protection and management**

**Assessing Protection and Management**

▶ **Relationships with local people**  
**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 and enforcement**  
**Some Concern**

Strong legal framework at National, State and local levels. Much of the site is in a permanent park preserve, and development in the balance controlled to protect World Heritage Values (Local Environmental Plan). Listed on the National Heritage list. Local enforcement has been challenged by incremental loss of habitat through small-scale development decisions and illegal vegetation damage (Board minutes and local records).

▶ **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).

▶ **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 Parks and Wildlife agency to Premier and Cabinet, while
retaining reporting to 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. 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 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**
Effective

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

▸ **Sustainable finance**
Some Concern

Significant reliance on local fund sources, especially user charges subject to fluctuations in visitor numbers. No recurrent budget allocation so key programs rely on short term grant allocations from State and National environmental programs.

▸ **Staff training and development**
Highly Effective

Well trained and professional staff supported as necessary by Office of Environment and Heritage 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**

   **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.

► **Education and interpretation programs**

   **Effective**

   Generally good programs mostly delivered by commercial operators and volunteers.

► **Tourism and interpretation**

   **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**

   **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.

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

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.

► 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.

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.

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

*Low Concern*
*Trend: Deteriorating*

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.

**Rare plants and threatened wildlife**

*Low Concern*
*Trend: Deteriorating*

Significant impacts from introduced pest and weed species. Comprehensive programs are underway or planned however until these are complete conditions will continue to deteriorate.

**Summary of the Values**

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

*Low Concern*
*Trend: Data Deficient*

Local threats to values are being actively addressed by local management and subject to resourcing and other implementation issues currently planned actions should go a long way to protecting World Heritage values when they are complete. 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

Key conservation issues

▶ Pest species management
  Local
  Eradication possible for many species of weeds and pest animals, ongoing control programs will be required for some other species

▶ Groundwater management
  Local
  Groundwater pollution from domestic wastewater and over extraction

▶ Climate change
  National
  Potential impacts to low lying environments, coral, and cloud forest

▶ Tourism and development assessment and control
  National
  Incremental impacts on significant habitat and individual animals and birds

▶ Quarantine
  National
  Impacts from pathogens and new pest species
Benefits

Understanding Benefits

► Is the protected area valued for its nature conservation?
   
   Existence values

► Does management of the site provide jobs (e.g. for managers or rangers)?
   
   Jobs

► Fishing areas and conservation of fish stocks, Livestock grazing areas
   
   Fishery, grazing and food production

► Access to drinking water
   
   Groundwater for human use

► History and tradition, Sacred natural sites or landscapes
   
   Local community history, remoteness

► Outdoor recreation and tourism
   
   Tourism

► Importance for research
   
   Scientific research
Soil stabilisation, Water provision (importance for water quantity and quality)

Water quality and soil stability

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

Kentia seed, other horticultural species

Summary of benefits

Many local benefits from careful stewardship, minor benefits to broader state and national community, some value to international community.

Projects

Compilation of active conservation projects

<table>
<thead>
<tr>
<th>№</th>
<th>Organization/ individuals</th>
<th>Project duration</th>
<th>Brief description of Active Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LHI Board</td>
<td></td>
<td>Weed eradication projects</td>
</tr>
<tr>
<td>2</td>
<td>LHI Board</td>
<td></td>
<td>Rodent eradication</td>
</tr>
<tr>
<td>3</td>
<td>LHI Board</td>
<td></td>
<td>African Big Headed Ant eradication</td>
</tr>
<tr>
<td>4</td>
<td>LHI Board</td>
<td></td>
<td>Pest species eradications - various</td>
</tr>
<tr>
<td>5</td>
<td>Marine Parks Authority</td>
<td></td>
<td>Various</td>
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Compilation of potential site needs

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<thead>
<tr>
<th>№</th>
<th>Site need title</th>
<th>Brief description of potential site needs</th>
<th>Support needed for following years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LHI Board</td>
<td>Weed eradication – securing of funding to fully implement strategy</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>LHI Board</td>
<td>Pest species and pathogens – securing of funding to complete various projects</td>
<td></td>
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<tr>
<td>№</td>
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<td>Brief description of potential site needs</td>
<td>Support needed for following years</td>
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<tr>
<td>3</td>
<td>LHI Board</td>
<td>Rodent eradication – further independent support and advice to support Board in implementing this project – at risk from community and political concerns</td>
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## REFERENCES

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<tr>
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<td>1</td>
<td>Lord Howe Island Annual Report 2011-2012</td>
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<td>2</td>
<td>Lord Howe Island Biodiversity Management Plan 2007</td>
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<td>3</td>
<td>Lord Howe Island Board Corporate Plan 2012</td>
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<tr>
<td>4</td>
<td>Lord Howe Island Board Plant Importation Policy 2011</td>
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<tr>
<td>5</td>
<td>Lord Howe Island Board Quarantine Strategy 2003</td>
</tr>
<tr>
<td>6</td>
<td>Lord Howe Island Board Weed Management Strategy 2006</td>
</tr>
<tr>
<td>7</td>
<td>Lord Howe Island Board draft Rodent Eradication Plan 2009</td>
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<tr>
<td>8</td>
<td>Lord Howe Island Governance Review, The Honourable Murray Gleeson AC, 27 June 2012</td>
</tr>
<tr>
<td>9</td>
<td>Lord Howe Island Local Environmental Plan 2010</td>
</tr>
<tr>
<td>10</td>
<td>Lord Howe Island Permanent Park Preserve Plan Of Management 2010</td>
</tr>
<tr>
<td>11</td>
<td>Lord Howe Island Stock Importation Strategy 2011</td>
</tr>
<tr>
<td>12</td>
<td>Strategic Plan for the Lord Howe Island Group World Heritage Property 2010</td>
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</tbody>
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