

# Operational Environment Management Plan

Mount Lofty Golf Estate

5 December 2022





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#### 1. INTRODUCTION

An Operational Environment Management Plan (OEMP) is required as part of Development Application conditions, to address obligations for management of the potential environmental impacts of Mt Lofty Golf Estate and associated amenities on the surrounding environment.

#### 1.1 Purpose of this OEMP

The purpose of this OEMP is to document the controls that will be applied to activities associated with the proposed golf course and tourist accommodation use of the Mt Lofty Golf Estate.

The key objective of the OEMP is to ensure that Mt Lofty Golf Estate onsite activities do not cause environmental nuisance or harm or impact on the environmental values for the site and its surrounds by:

- conducting all activities in accordance with applicable legislation
- conserving and protecting the natural environment through protection of ecosystems and promoting efficient use of all resources
- minimising negative environmental outcomes through reducing wastes, potential impact sources, emissions and other pollutants, whilst minimising energy usage
- clearly identifying the environmental roles and responsibilities of staff and contractors
- providing appropriate resources and environmental training commensurate with the roles and responsibilities
  of staff, workforce and persons undertaking activities
- communicating the company's environmental objectives and performance indicators to employees, contractors, clients and the community.

#### 1.2 Design Statement

The Design Statement for the proposed redevelopment offers the following key principles:

- Minimise impact to existing site topography
- Preserve and enhance native flora and fauna
- Preserve and enhance the original publicly accessible golf course
- Respect for Traditional Owners
- Reflect the history and character of the Adelaide Hills
- Optimise the views
- Showcase environmentally sustainable design
- Showcase local produce



- Preserve and enhance local amenity
- Grow regional tourism and make a positive economic contribution
- Restore the heritage building usage (perfumery) and gardens.

The OEMP is designed to align with these key principles.



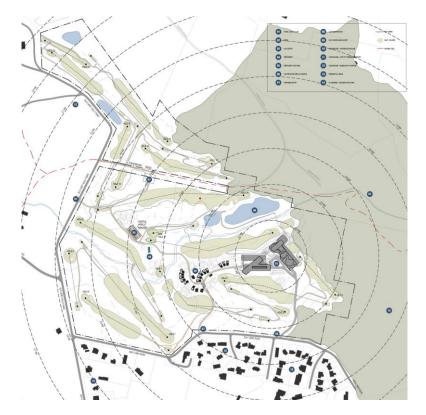
#### 2. PROPOSED SITE DEVELOPMENT

The proposed development is summarised as follows:

- Hotel 3-5 level hotel building comprising:
  - 56 hotel suites.
  - 15 x two bedroom serviced apartments.
  - 15 x three bedroom serviced apartments.
  - 2 penthouse serviced apartments.
  - Back of house, plant storage and maintenance areas.
  - A 537m<sup>2</sup> function room.
  - A 212m<sup>2</sup> restaurant with 89 m<sup>2</sup> external terrace.
  - 186m<sup>2</sup> sports bar.
  - A 189m<sup>2</sup> gallery and cafe.
  - A 94m<sup>2</sup> wellness centre with 125m<sup>2</sup> gym and spa/massage treatment rooms.
- Private retreats 'Pods'
  - 17 x one bedroom units.
  - 1 x back of house Service Pod.
- Adaptive reuse of the existing perfumery:
  - Refurbishment of the existing local heritage place to accommodate a multipurpose space for use as café,
     retail or functions.
  - Extension to the Perfumery to include a covered outdoor dining area.
  - Orchard and perfumery garden plantings to reimagine the former use of the building as a "Scent Factory".
  - Note: the perfumery building will temporarily house the golf club whilst construction is occurring.
- Golf Course Facilities Building 2-5 level building comprising:
  - Retention of 18-hole golf course with improvements.
  - Refurbished function facilities, cart storage and 138m<sup>2</sup> clubhouse in new building.
  - New 97m<sup>2</sup> pro-shop, administration areas, gym and change rooms.
- Car Parking, Access and Waste Management



- A total of 200 car parking spaces in two car parking areas.
- Emergency vehicle access via western entry from Golflinks Road.
- Main access point via Golflinks Road.
- Designated service bay for waste collection and service vehicles.
- Porte cochere and valet area for guests and buses.
- A separate entry from Old Carey Gully Road to provide maintenance vehicle access and public access to the perfumery building.
- Designated waste storage areas.
- Subdivision following construction of the proposed development, it is proposed to divide the site into three (3) allotments:
  - Allotment 532, with an approximate area of 9,924m2 together with a right of way 'A', comprising the hotel building and pods.
  - Allotment 533, with an approximate area of 5,056m2 together with a right of way 'B', comprising the golf club and facilities building.
  - Allotment 531, with an approximate area of 38.4 hectares, comprising the balance of the golf course, subject to easements 'A' and 'B'.



**Figure 1 Development Plan** 



#### 3. EXISTING ENVIRONMENT

#### 3.1 Development site

Mount Lofty Golf Estate will redevelop the Stirling Golf Course, located at 35 Golflinks Road, Stirling, South Australia.

An ecological flora and fauna assessment (EBS Ecology 2022) identified pockets of remnant native vegetation, scattered trees and landscape vegetation associated with the golf course. Few patches of native remnant vegetation remain on the site, and they are generally impacted by weeds and lack understorey. EBS however considers vegetation on the golf course to have high habitat value as it provides corridors for movement of fauna to better quality vegetation. The remaining trees were observed to contain a large number of hollows which might be used by birds and other fauna.

#### 3.2 Surrounding land use and sensitive receptors

Surrounding land uses consisted primarily of rural residential dwellings and agricultural use.

Sensitive receptors to potential environmental impacts from the proposed development include:

- nearby residents, in relation to nuisance issues associated with visual amenity and noise
- Mount George Conservation Park to the east, which reportedly is "supporting a large assembly of both nationally and state listed flora and fauna", (DEH 2006).

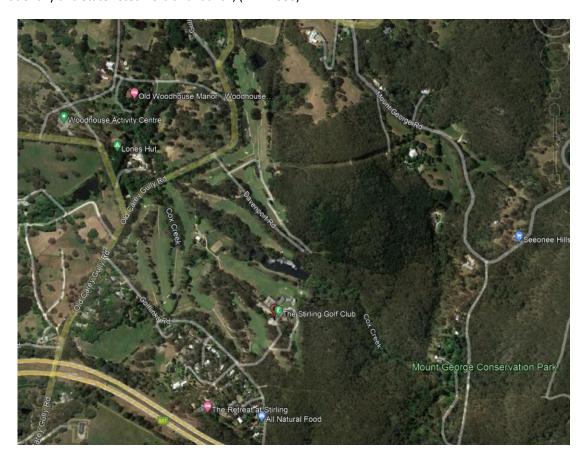


Figure 2 Site Setting



See Section 7 for the identified environmental aspects and associated impacts of this project.

#### 4. **DEVELOPMENT DESIGN**

Specifications have been incorporated into the design to minimise environmental impact.

#### 4.1 Waste management

Waste management design is detailed in:

Mount Lofty Golf Estate Golflinks Road, Stirling, Waste Management and Minimisation Plan, CIRQA.

The Waste Management and Minimisation Plan (WMMP) states that operational activities relevant to waste will relate to:

- the continued use of the golfing facilities
- accommodation of tourists
- operation of the food, beverage and hospitality uses
- various servicing and maintenance activities associated with the various facilities within the site. This will include the collection, segregation, reuse, recycling, and removal of waste materials generated by the site's uses in line with the WMMP.

It is expected that waste management and minimisation will be undertaken in accordance with industry standards and the WMMP. Hence the only environmental aspect of waste disposal to be considered in this OEMP is appropriate storage prior to collection by licensed contractors for off-site re-use, recycling or disposal.

#### 4.2 Stormwater management

Water management is detailed in:

Mount Lofty Golf Estate Sustainability Strategy Report (DSquared).

A rainwater capture and reuse system will provide rainwater for landscape irrigation, laundry services, and washdown of golf carts/waste storage rooms.

A 50 kL rainwater storage tank will contribute 13 per cent of the development's total water demand and 25 per cent of non-potable water demand.

Landscaping comprises native and drought-tolerant planting species which have low irrigation water demands.

The stormwater system is designed such that pre-development peak stormwater outflows will not be exceeded, and all stormwater run-off will be appropriately treated before discharge to the local waterways. The use of stormwater detention tanks will contribute to meeting these outcomes.



#### 5. REGULATORY REQUIREMENTS AND GUIDANCE DOCUMENTS

Mt Lofty Golf Estate are required to implement and maintain an OEMP to manage potential environmental impacts during operation.

#### 5.1 Environment protection and pollution prevention

Management of the environment and any pollution from this project must comply with:

- Environment Protection Act 1993
- Environment Protection Regulations 2009
- Environment Protection (Water Quality) Policy 2003 and 2015
- Environment Protection (Noise) Policy 2007.

#### **5.2** Flora and fauna management

Management of flora and fauna from this project must comply with:

- Environment Protection and Biodiversity Conservation Act 1999 Commonwealth
- Native Vegetation Act 1991
- National Parks and Wildlife Act 1972
- Landscape South Australia Act 2019
- Planning Development and Infrastructure Act 2016.

#### 5.3 Waste management

Management of waste must comply with:

- Environment Protection Act 1993
- South Australia's Waste Strategy 2020-2025

Management of waste soils at the site must comply with:

- EPA Guidelines 416/07 Waste Tracking Form and 415/10 Waste Transport Certificate
- Standard for the Production and Use of Waste Derived Fill 2013
- Current criteria for the classification of waste including Industrial and Commercial Waste (Listed) and Waste Soil, SA EPA 889/10 2010.



#### 6. ROLES AND RESPONSIBILITIES

The Site Manager assumes the responsibility for environmental matters and is advised by the Director, generally located at head office. Specialist advice may be sought from an appropriately qualified and experienced environmental consultant from time to time, as required.

Site personnel must report all environmental matters to the Site Manager, who is responsible for development and implementation of the OEMP, incident response, cessation of works order, communication of environmental issues, record keeping, training and other matters to satisfy the requirements of the OEMP. Should the Site Manager be offsite, responsibility for environmental matters is delegated to an appropriately trained and experienced person or the Director. Table 6-1 summarises the key areas and responsibilities under the OEMP.

Table 6-1: Roles and responsibilities

Key Tasks	Director	Site Manager	Employees
Annual review of OEMP including objectives, impacts, risks and controls	Ø	☑	
Allocation of resources to meet environmental objectives			
Development and maintenance of the environmental management system, incorporating any changes to legislation, regulations or guideline documents			
Disseminate environmental management information to all staff			☑
Adherence to environmental management policies and procedures			
Completing environmental risk assessments as necessary			
Periodic internal monitoring and environmental compliance inspections			
Raising environmental non- conformance where required, implementing preventative and corrective actions			☑
Emergency response and notification of incidents		$\square$	☑
Annual summary report on environmental compliance			



#### 7. ENVIRONMENTAL PERFORMANCE REVIEW

Environmental aspects are defined as the elements of the organisation's activities, products or services that could interact with the environment. A significant environmental aspect has, or could have, a significant environmental impact (AS/NZS ISO 14001:2016).

A range of significant operational environmental aspects have been identified and are shown in Table 7-1: Significant environmental aspects, as well as the potential impacts and risk ratings for each aspect.

Table 7-1: Significant environmental aspects

Aspect	Potential impact	Risk level	Key control mechanisms
Vehicle traffic and parking	Generation of dust and emissions  Damage to ecology by off-designated road traffic  Spread of weeds from vehicle tyres	Low	Speed limits to slow down traffic movements reducing dust generation  Designated and maintained roads and parking areas  Sealed roads and parking areas  Signage to discourage off road traffic
Pedestrian traffic in hotel area and golfers across greens	Spread of weeds Litter	Low	No un-authorised access to revegetation areas Marked access tracks
Pedestrian or buggy access into revegetation areas	Damage to vegetation and regrowth potential Disturbance to fauna Habitat disruption	Moderate	No un-authorised access to revegetation areas Marked access tracks
Inappropriate waste management	Increase of abundance or diversity of pest and vermin i.e. mice, rats, mosquitos Litter	Moderate	All general waste will be removed through council commercial waste collection services CIRQA 2022 WMMP Section 4.2
Grounds maintenance – mowing, slashing and weed control	Damage to plants and revegetation potential Disturbance and injury to fauna Habitat disruption Noise impacts to neighbours	High	No unplanned slashing of vegetation where native vegetation is present Areas of revegetation clearly identified Managed vegetation areas – development of specific SOPs Good communications with neighbours to notify of potentially noisy activities
Importation of soil for golf course	Importation of contaminated fill Spread of weeds	Moderate	All soil to be imported to site to be of known provenance (for weed propagation control) and tested to ensure it meets SA EPA Waste Fill criteria
Application of herbicides and pesticides	Damage to plants and revegetation potential Injury to fauna	Moderate	Experienced weed management contractors appointed to ensure appropriate measures are



Aspect	Potential impact	Risk level	Key control mechanisms
			adopted for weed management in areas of native vegetation
Workshops – equipment maintenance	Potential for spills/leaks (from vehicles, equipment and hazardous materials storage and use) to ground causing on and off-site contamination	Low	All vehicle servicing and maintenance will occur at licensed mechanics premises or in designated workshops onsite Any onsite workshops will be fitted out with appropriate controls for any potential risks identified for environmental impacts
Vehicle and equipment use on site	Potential for spills/leaks (from vehicles, equipment and hazardous materials storage and use) to ground causing on and off-site contamination	Low	There will be minimal pieces of plant/equipment onsite at all times  Spill kits are located onsite and contain relevant quantities of collection materials. All contaminated materials to be disposed of by licensed contractors  Staff will be trained in spill response
Waste generation-house keeping	Litter and storage of waste materials causing impacts to land, habitat, flora and fauna, aesthetics, or becomes a nuisance issue	Low	All general waste will be removed through council commercial waste collection services.  CIRQA 2022 WMMP Section 4.2
Site Contamination	Spread of contaminated soil	Low	Testing of soil prior to movement or reuse to ensure it is suitable for the proposed use
Water management	Surface water runoff contaminated by site activities		Onsite surface water detention capacity shall be designed to cater for expected runoff from hardstand and rooves

## **7.1** Environmental Elements and Objectives

The key objective of this OEMP is to review the likely environmental performance of the proposed development from a design perspective (with further improvements such as energy efficiency to be developed with final design).

**Table 7-2: Design Environmental Element and Objectives** 

Design environmental element	Objectives
Soil Management	Minimise disturbance of ground surfaces and implement sediment, erosion and drainage management.  Design to minimise erosion and sediment transport.
Stormwater Quality	Minimise the effect on water quality/stormwater runoff by minimising disturbance to ground surfaces and implementing effective erosion controls where required.



Design environmental element	Objectives
	Minimise increased surface water runoff by adopting infiltration designs for large areas such as car parks.  Contain and reuse stormwater where possible.  Minimise increased or uncontrolled runoff onto adjoining land and into council stormwater system.  Treat stormwater runoff to remove debris and sediment.
Waste Management (including wastewater)	Apply the waste management hierarchy: Avoid/Minimise, Re-use/Recycle, Recover, Treat, Dispose.  Minimise pollution by employing appropriate waste storage, handling and disposal methods.
Biodiversity and Nature Conservation	Minimise the impact of the development on native flora and fauna by confining activities to public areas and roads.  Protect significant trees.  Maintain established exclusion zones around existing vegetation areas.  Protect and regenerate native vegetation areas.
Social Values / Health	Minimise aesthetic impact to neighbouring residents.  Minimise impact of vine spraying drift on guests or restriction on vine management caused by presence of building.  Minimise energy usage.
Cultural Heritage	Avoid harm to cultural heritage by developing plans for management of any known heritage sites.

#### 7.2 Environmental performance review

Environmental performance reviews have been undertaken for the specific design elements identified in Table 5-1.

Reviews (attached as **Appendix B**) have been developed for the following:

- soil management
- stormwater management
- waste management
- vegetation management
- social and cultural value.

### 7.3 Environmental performance summary

Application and improvement of the OEMP will ensure that the proposed development will have minimal negative environmental impact on surrounding land.

The site layout allows management of environmental aspects to enhance opportunities for improvement of ecological value, such as increased planting of higher quality native vegetation.



#### 8. REFERENCES

The OEMP framework uses several reports, which form part of the OEMP framework. Reports include:

- R Architecture Design Statement
- Mount Lofty Golf Estate Architecture- DA Further Info DRAFT
- EBS Heritage\_GX220701 Heritage Impact Statement DRAFT 220908
- Mount Lofty Golf Estate Hazard Management Plan\_V.02
- Support Letter Mount Lofty Golf Course September 2022
- CIRQA Mount Lofty Golf Estate Waste Management and Minimisation Plan 15Sep22 Draft
- CIRQA Traffic and Access Impact Statement
- DSquared 2623 Mount Lofty Golf Estate Sustainability Strategy Report
- EBS Ecology GX220701\_Mt Lofty Golf Course EHIAR Draft V1 20220909
- EBS Heritage CHMP Framework
- EBS Ecology Fauna and Flora Mt Lofty Estate Eco Assessment\_Draft\_V1\_20220909
- EBS Heritage Heritage Impact Statement DRAFT 220908



#### 9. LIMITATIONS

#### **Scope of Services**

This environmental site assessment report ("the report") has been prepared in accordance with the scope of services set out in the contract, or as otherwise agreed, between the client and Environmental Projects (EP) ("scope of services"). In some circumstances the scope of services may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints.

#### **Reliance on Data**

In preparing the report, EP has relied upon data, surveys, analyses, designs, plans and other information provided by the client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise stated in the report, EP has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. EP will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to EP.

#### **Environmental Conclusions**

Preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, expressed or implied, is made.

#### Report for Benefit of the client

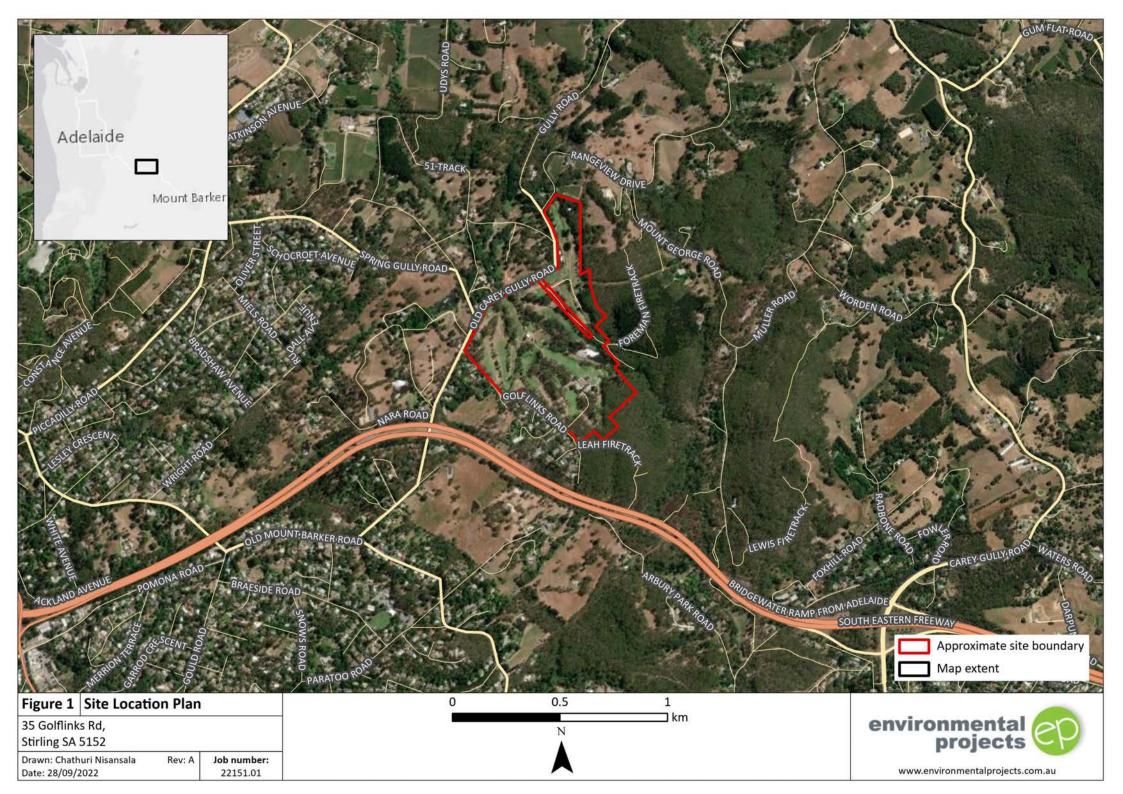
The report has been prepared for the benefit of the client for the specific purpose of this project. EP assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including without limitation matters arising from any negligent act or omission of EP or for any loss or damage suffered by any other party relying upon the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own enquiries and obtain independent advice in relation to such matters.

#### **Other Limitations**

EP will not be liable to update or revise the report to take into account any events or emergent circumstances or facts occurring or becoming apparent after the date of the report.

# Appendix A

**Site Location** 



# **Appendix B**

**Environmental Performance Management** 



# **B1– Soil Management**

Outcome: No negative impacts on soil quality on and off-site	
Performance Indicator Site erosion is minimised and soil condition protected.	
	Sediment transport onto adjoining properties or waterbodies is minimised.
	Off-site soil quality is not compromised.
	Details
Management Measures	The proposed development design includes landscaping post-construction to reinstate vegetation and grasses surrounding the building to minimise exposed soil.
	Exposed soil will be stabilised
	Formal entry and exit point will be established for all vehicle traffic to minimise soil disturbance.
	If not hard paved, any traffic areas will be constructed of compacted sub-grade, covered with a 200 mm layer of 40 mm aggregate.
	Cars will only be parked in designated parking areas so as to prevent unnecessary disturbance of soils.
Performance Review:	The proposed development design minimises impact on site soils.



# **B2 – Stormwater Management**

Outcome:	No negative impacts on stormwater quality and quantity on and off-site	
Performance Indicator	Erosion and sediment transport, and adverse impacts to water quality are minimised, on and off-site.	
	Sediment transport into council stormwater system is prevented.	
	The volume of water running off the site will not change significantly.	
	Water is captured for reuse.	
	Water quality not affected by development activities such as car parking.	
	Details	
Management Measures	The proposed design includes open grassed land to allow stormwater infiltration.	
	Stormwater discharge to the municipal stormwater system minimised.	
	Swales will be installed to capture, direct and treat stormwater runoff.	
	Sediment traps will be installed where erosive affects could potentially be enhanced and sediment run-off likely.	
	A detailed inspection of the drainage pattern across the site will be undertaken and any drainage lines that are in the area development will be redirected to maintain natural flow across the site.	
	Stormwater runoff will be captured and stored in a retention basin and tanks. Where possible water will be used for irrigation are other uses.	
Performance Review	The proposed development design minimises impact on stormwater runoff.	



## **B3 – Solid Waste Management**

Outcome:	No impacts to the environment as a result of the generation and management of waste
Performance Indicator	No spills or leaks to ground from storage or handling of waste.
	Minimisation of waste generation and no loss of waste from storage areas.
	No contaminated material used as site fill.
	No off-site movement of soils or waste without classification and receipt by an approved facility.
	Details
Management Measures	Storage, handling and management of wastes are to be in accordance with relevant guidelines. Wastes likely to be generated that will require management and disposal include:
	domestic waste
	recyclable materials
	waste oils/chemicals (controlled waste)
	The hierarchy of reduce, reuse and recycle for waste will be implemented.
	Wastes will be segregated and stored appropriately to ensure spills, leaks and odour is avoided. Clear labelling of waste storage areas/bins will be maintained.
	Any off-site movement of waste will be in accordance with EPA and council requirements, including the use of appropriately licensed vehicles and completion of appropriate documentation.
	Housekeeping activities will include daily litter pick up and will ensure waste storage areas are neat and tidy.
	A suitably qualified contractor must be engaged to remove all waste,
Performance Revie	The proposed development design minimises impact on receiving environment.



# **B4 – Biodiversity and Nature Conservation**

Outcome:	Improvement to onsite existing vegetation and no harm to vegetation in the surrounding environment
Performance Indicator	No unauthorised clearance or damage to native vegetation during golf course maintenance activity.
	No damage from application of herbicides and pesticides.
	Retention of significant trees.
	Enhancement of native vegetation areas for aesthetic and ecological value.
	Protection of areas with habitat value.
	No importation of plant pathogens or weeds.
	No impacts on nearby sensitive receptors.
	Details
Management Measures	No native significant vegetation to be disturbed by maintenance activity.
	No new access roads or tracks to be developed.
	'No – go' zones will be flagged off for any identified vegetation protection areas.
	Significant tress will be identified and protected.
	Tree understorey will be planted out with endemic native species to improve ecological value.
	Proposed new vegetation areas will be populated with endemic species and will include planting of the understorey, creating a revegetation area.
Performance Review	The proposed development design minimises impact on vegetation and provides good environmental management.



#### **B5 – Social and Cultural Values**

Outcome:	No nuisance issues to neighbours as a result of operation.
	Retention of heritage value.
	Management of discovered heritage items.
Performance Indicator	Noise criteria are met.
	Visual amenity is maintained at highest standard.
	No complaints are received in relation to noise, odour, lighting, vibration or dust.
	Highest energy management standards are met.
	Protection of recognised "perfumery" European heritage value.
	No damage to cultural heritage values.
	Details
Management Measures - Social	Energy usage will be minimised operationally however solar panels will be fitted to augment power supply to the building.
	Any discoveries of cultural heritage will be managed appropriately and protected during and after development.
Management Measures - Cultural	Any discoveries of cultural heritage will be reported, managed appropriately and protected.
Performance Review	The proposed development design minimises impact on receiving environment.