PLANNING SCHEME AMENDMENT AND S96A PLANNING PERMIT APPLICATION FOR A TWO LOT SUBDIVISION LONSDALE GOLF COURSE RECONFIGURATION PLANNING REPORT

LONSDALE GOLF CLUB, POINT LONSDALE
JULY 2017

This report has been prepared by the office of Spiire
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1. INTRODUCTION

Spiire Australia has been engaged by Lonsdale Golf Club (LGC) to prepare a planning submission in support of the proposal to reconfigure the Lonsdale Golf Course at 69 Fellows Road, Point Lonsdale where such actions will require the rezoning of land together with a planning permit application for subdivision.

As such, these outcomes are intended to be achieved through a combined Planning Scheme Amendment and S96A planning permit application process where the former will enable the latter to be considered and enable the golf course reconfiguration.

This report outlines the proposal, details the planning and environmental policy context applicable to the proposal and provides an assessment and justification of the proposal against the relevant policy context.

The following accompany this submission for an amendment and associated planning permit:

- Certificate of Titles;
- Proposal Plans;
- Technical Reporting; and
- Planning Permit Application Form.

1.1 BACKGROUND

LGC commenced the process of redevelopment in 2002, wherein they were successful in obtaining both Authorisation from the Minister for Planning and Approval under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC2003/0969) in 2013.

The earlier proposal similarly sought a Planning Scheme Amendment (Amendment C67) and a planning permit for subdivision of the land, PP1311/2011.

Considered under both the Planning and Environment Act and the Environmental Protection and Biodiversity Conservation Act, the proposal encompassed 45.7ha of the golf course (both leased and owned by the Lonsdale Golf Club) together with two additional areas of abutting rural land (approx. 37ha) proposed to be acquired by the Club.

The proposal included two, two lot subdivisions where one facilitated the opportunity to create a residential subdivision fronting Fellows Road, covering an area of approx. 8.2ha which is currently under staged construction.

In addition, the proposals included the construction of new golf holes, course maintenance facilities, water storage basins and course irrigation system, together with the ultimate construction of a new clubhouse and associated facilities.

The rezoning portion of the earlier process provided for the adjacent land (to be acquired) to be varied from Rural Conservation Zone, Schedule 11 (RCZ11) Conservation Values, to become part of the Special Use Zone, Schedule 3 (SUZ3) Private Golf Course; part of the golf course became Residential 1 Zone (now General Residential Zone, Schedule 1) to facilitate the residential development; with part becoming Public Park and Recreation Zone (PPRZ) to provide for public open space.

In combination with these zone changes, a Development Plan Overlay was put in place, Development Plan Overlay, Schedule 26 (DPO26) over the whole of the enlarged golf course site.

Gazettal of that Amendment was achieved in 2013.

1.2 CURRENT SUBMISSION

As indicated, in the intervening period since those decisions, the residential subdivision has been commenced. In addition, refinement of the area for inclusion within the golf course has occurred and as such, the redevelopment of the golf course and associated facilities has been modified.

As part of the refinement process, LGC have undertaken the review of previous site assessments, particularly in relation to biodiversity. This review has had regard to the reduced area of land to be incorporated within the golf course, particularly as related to areas of sensitivity for fauna species protected under the EPBC Act.

LGC have also sought to maintain currency of information with the community, including previous submitters within the 2011 process for the Amendment/Planning Permit, through a public information session held at the Club (individual notification and public notices with the Geelong Advertiser and Echo newspapers).

2. SITE AND SURROUNDS

The Lonsdale Golf Course site has an area of approx. 38.3ha under freehold title (this excludes the residential subdivision) on the western edge of Point Lonsdale.

The course is in two parcels that straddle Gill Road, with the larger parcel located to the north of Gill Road. The golf course is, in part, bounded by existing residential development to the north, east and south whilst to the west are small parcels of land in separate ownership that form a separation from the Lonsdale Lakes Wildlife Reserve.

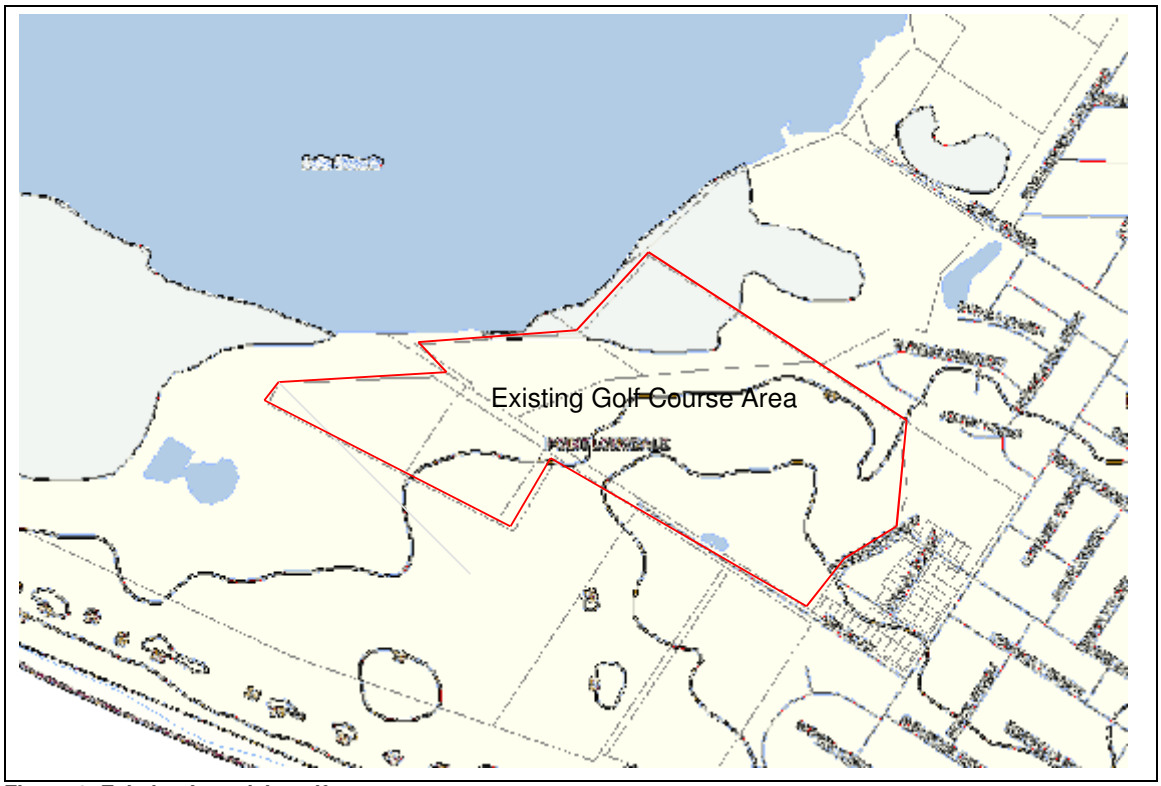


Figure 1: Existing Lonsdale golf course

As indicated, the club intends to acquire a parcel of rural land abutting the existing golf course, south west edge, which forms part of a larger title.

2.1 SITE CONDITIONS

The golf course comprises generally elevated, undulating land, except for the north western section adjacent to the boundary of the Lonsdale Lakes Wildlife Reserve, which is low lying, filled land that was previously mined for shell grit.

The existing golf course facilities include an eighteen-hole golf course, three practice fairways, a clubhouse and pro shop, members and visitors' car parking with access from Fellows Road and a maintenance facility with vehicle access from Gill Road. Vegetation on the existing golf course consists of a mixture of mature exotic and native species generally abutting the fairways, together with indigenous regrowth scattered throughout the site.

The parcel of rural land proposed for acquisition and incorporation into the expanded Lonsdale Golf Club has previously been extensively farmed, used for grazing with a small portion of the area previously used for shell grit extraction.

2.2 SURROUNDING CONTEXT

The surrounding Point Lonsdale residential neighbourhoods are generally characterised by a rectilinear street pattern (though the two adjoining developments immediately to the north east and south west of the site show a curvilinear street pattern). Road reserves are characterised by an asphalt carriageway and grassed verges with relatively dense informal plantings of native tree species.

Topography is variable, emphasising the location of the township in a dune area.

Figure 2: Aerial view of the subject site and surrounding land

To the north west the land is generally low-lying land adjacent to the boundary of the Lonsdale Lakes Wildlife Reserve, with parts subject to inundation. This area incorporates a stretch of foreshore and is under the management of Parks Victoria.

Lake Victoria, within the Lonsdale Lakes Wildlife Reserve, is recognised as a high value wetland serving a significant habitat protection purpose. Various areas of the reserve, in particular parts of the shoreline, have in the past been mined for shell grit.

To the south east lies Fellows Road and the subdivision currently under staged construction, with existing residential areas forming the established township of Point Lonsdale beyond Fellows Road. These residential areas are generally developed with single and two-storey single and multi-unit residential development on a range of lot sizes.

To the south west is a rural land holding.

3. PROPOSAL

The Planning Scheme Amendment submission seeks:

- the rezoning of the land adjacent to the existing golf course to be acquired by the Lonsdale Golf Club, to Special Use Zone Schedule 3 Private Golf Courses (SUZ3) to facilitate the extended boundaries and reconfiguration of the golf course;
- the rezoning of land adjacent to the existing golf course, previously identified for acquisition by the Golf Club, to Rural Conservation Zone, Schedule 11 Conservation Values (RCZ11) to facilitate protection and conservation for Lake Victoria (Part Lot 1 on TP822391 and Lot B on PS337472). This will re-apply the zoning applicable immediately prior to Planning Scheme Amendment C67;
- to remove Development Plan Overlay 26 from those land areas rezoned to RCZ11 (as above);
- to exclude the land described as part of Lot 1 on TP822391K zoned Farming Zone and Rural Conservation Zone from the minimum lot size requirements of their respective Schedules;
- to apply the particular provisions of Clause 64.03 Subdivision of land in more than one zone to land described as Part of Lot 1 on TP822391K zoned Farming and Rural Conservation Zones, in order to facilitate a subdivision which is smaller than the minimum lot size requirements of the relevant schedules; and
- to amend the content of Development Plan Overlay 26 as it relates to the golf course to maintain relevance to the land area (see Appendix).

The proposed rezoning associated with the Planning Scheme Amendment application is shown below.

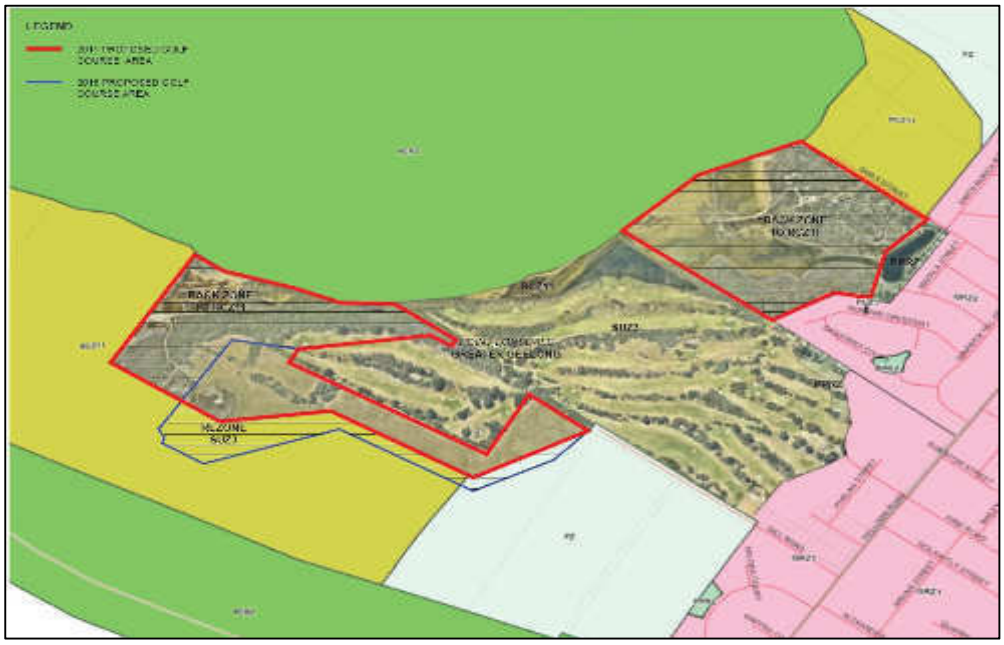


Figure 3: Proposed Areas incorporated in the Rezoning (Indicative, not to scale)

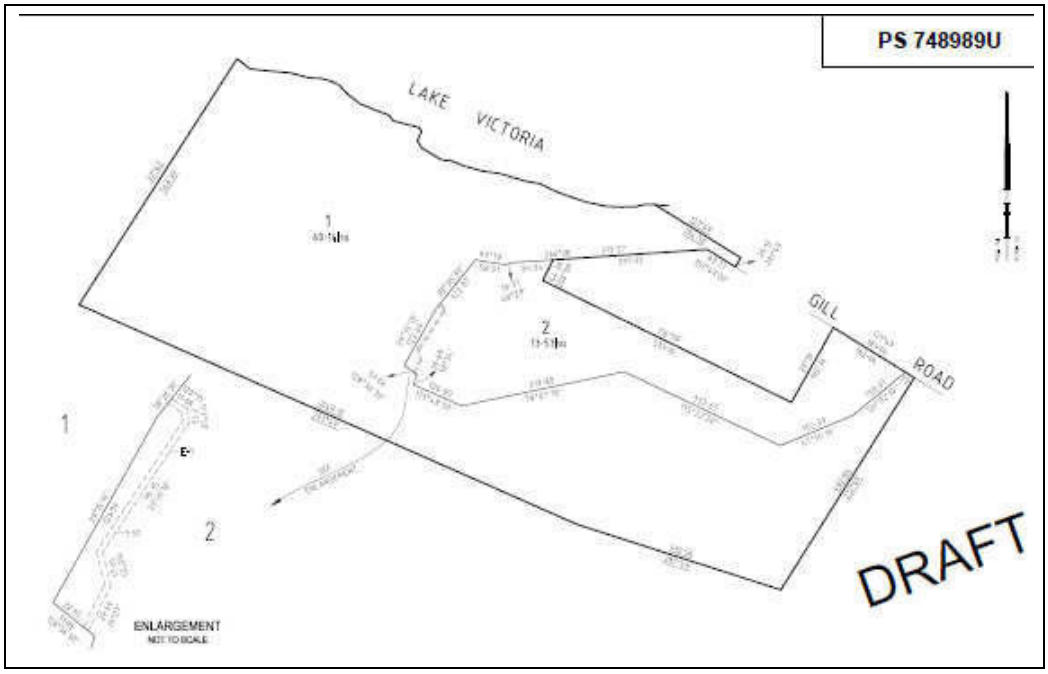
In conjunction with these changes, the planning permit application seeks the subdivision of rural land adjacent to the existing golf course to facilitate its inclusion within the reconfigured Lonsdale Golf Course.

The land area affected by the above intent is shown below.

Figure 4: Land affected by Combined Planning Scheme Amendment and S96A Application

The subdivision of the land specifically proposes to subdivide the existing land parcel as follows:

- Lot 1: 60.14ha does not contain any buildings, and is vacant rural conservation, farming and special use zoned land.
- Lot 2: 13.53ha does not contain any buildings, and is vacant special use, rural conservation and farming land.



The proposed subdivision is consistent with Clause 64.03 which enables subdivision that is smaller than the minimum lot area, to accommodate subdivision of the land within both the Farming Zone and Rural Conservation Zone. The proposal meets the requirements outlined in 64.03 as the subdivision does not create lots with any lot extending into more than one zone.

4. TECHNICAL REPORTS

4.1 BIODIVERSITY ASSESSMENT (BRETT LANE & ASSOCIATES)

The Biodiversity Assessment, following from previous the previous 2011 documentation, provides information on the extent and condition of native vegetation in accordance with current policy as well as any impacts on flora and fauna matters listed under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The report identifies that the vast majority of the golf course area (incorporating both the existing golf course which was previously assessed and the new proposed expansion area) is dominated by introduced grasses, planted introduced trees and planted indigenous native trees. It is indicated that remnant patch native vegetation (9.131ha) was limited to linear strips and that a total of 179 scattered trees were located in the east of the area, mainly Coast Tea-tree, with numerous indigenous shrubs throughout the area.

The report indicates that no flora species or ecological communities listed under the EPBC Act were located within the area. It is stated that the Orange-bellied Parrot is likely to occasionally occur within the area as suitable habitat is present.

In response to the proposed reconfiguration, with incorporation of the area to the south of the Gill Road section of the golf course, it is identified that the proposal will result in the loss of 0.38ha of Coastal Alkaline Scrub (EVC858) and 72 scattered trees, but that the Orange-bellied Parrot is unlikely to be significantly impacted.

The report goes on to identify vegetation offset targets, where such are intended to be achieved within the area as ample suitable vegetation will be retained within the reconfigured golf course.

4.2 CULTURAL HERITAGE MANAGEMENT PLAN (ECOLOGY & HERITAGE PARTNERS)

The Cultural Heritage Management Plan for the area is in preparation, where this incorporates the relevant documentation prepared responsive to the previously identified extent of the redeveloped golf course.

The CHMP incorporates the extent of the golf course which includes the clubhouse precinct and the maintenance facilities, where works will include excavation and earthworks to provide water storage basins and the contouring of the course itself. These activities have the potential to impact Aboriginal cultural heritage.

Previous assessment of the area established that it has been significantly disturbed by previous land practices, but with an Aboriginal site identified within the golf club area and areas of sensitivity remaining within the southern portion.

The current assessment has located further Aboriginal sites within the southern section of the proposed extension area for the golf course.

The CHMP will incorporate management recommendations and requirements for the locations where artefacts have been found within the site, prepared in consultation with the Registered Aboriginal Party, the Wathaurung Aboriginal Corporation.

5. PLANNING CONTROLS

This section of the report outlines the relevant policy context for the proposed subdivision including relevant elements of the State and Local Planning Policy Framework and Municipal Strategic Statement, together with the relevant zoning and overlay controls.

5.1 STATE PLANNING POLICY FRAMEWORK

The State Planning Policy Framework (SPPF) seeks to ensure that land use and development planning policies in Victoria meet the objectives of planning in Victoria as set out in the Planning and Environment Act 1987.

- **Clause 11 Settlement**

  Planning is to anticipate and respond to the needs of existing and future communities through provision of zoned and serviced land for housing, employment, recreation and open space, commercial and community facilities and infrastructure.

  Clause 11.05 Planning for distinctive areas and landscapes
  Clause 11.05-1 Coastal settlement
  Objective: to plan for sustainable coastal development.

  Clause 11.05-2 Distinctive areas of state significance
  Objective: to protect and enhance the valued attributes of the distinctive areas of the Bellarine Peninsula.

  Clause 11.07 Regional Victoria
  Clause 11.07-1 Regional planning
  Objective: to develop regions and settlements which have a strong identity, are prosperous and are environmentally sustainable.

  Clause 11.09 Geelong (G21)
  Clause 11.09-4 Environmental assets
  Objective: to protect, restore and enhance the region's unique environment.

  Clause 11.09-7 A diversified economy
  Objective: to build the region's economy.

- **Clause 12 Environmental and Landscape Values**

  Planning should help to protect the health of ecological systems and the biodiversity they support (including ecosystems, habitats, species and genetic diversity) and conserve areas with identified environmental and landscape values.

  Clause 12.01 Biodiversity
  Clause 12.01-1 Protection of biodiversity
  Objective: to assist the protection and conservation of Victoria's biodiversity, including important habitat for Victoria's flora and fauna and other strategically valuable biodiversity sites.

  Clause 12.01-2 Native vegetation management
  Objective: to ensure that permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity.

  Clause 12.02 Coastal areas
  Clause 12.02-1 Protection of coastal areas
  Objective: to recognise and enhance the value of the coastal areas to the community and ensure sustainable use of natural coastal resources.

Clause 12.02-2 Appropriate development of coastal areas
Objective: to ensure development conserves, protects and seeks to enhance coastal biodiversity and ecological values.

Clause 12.02-4 Coastal tourism
Objective: to encourage suitably located and designed coastal and marine tourism opportunities.

Clause 12.04 Significant environments and landscapes
Clause 12.04-2 Landscapes
Objective: to protect landscapes and significant open spaces that contribute to character, identify and sustainable environments.

- **Clause 13 Environmental Risks**

Planning should adopt a best practice environmental management and risk management approach which aims to avoid or minimise environmental degradation and hazards.

Clause 13.01 Climate change impacts
Clause 13.01-1 Coastal inundation and erosion
Objective: to plan for and manage the potential coastal impacts of climate change.

Clause 13.03 Soil Degradation
Clause 13.03-1 Use of contaminated and potentially contaminated land
Objective: to ensure that potentially contaminated land is suitable for its intended future use and development, and that contaminated land is used safely.

- **Clause 14 Natural Resource Management**

Planning is to assist in the conservation and wise use of natural resources including energy, water, land, stone and minerals to support both environmental quality and sustainable development

Clause 14.01 Agriculture
Clause 14.01-1 Protection of agricultural land
Objective: to protect productive farmland which is of strategic significance in the local or regional context.

Clause 14.02 Water
Clause 14.02-1 Catchment planning and management
Objective: to assist the protection and, where possible, restoration of catchments, waterways, water bodies, groundwater, and the marine environment.

Clause 14.02-2 Water quality
Objectives: to protect water quality

- **Clause 17 Economic Development**

Planning is to contribute to the economic well-being of communities and the State as a whole by supporting and fostering economic growth and development by providing land, facilitating decisions, and resolving land use conflicts, so that each district may build on its strengths and achieve its economic potential.

Clause 17.03 Tourism
Clause 17.03-1 Facilitating tourism
Objective: to encourage tourism development to maximise the employment and long-term economic, social and cultural benefits of developing the State as a competitive domestic and international tourist destination.

- **Clause 19 Infrastructure**

  Planning for infrastructure development should enable it to be provided in a way that is efficient, equitable, accessible and timely.

  Clause 19.03 Development infrastructure
  Clause 19.03-2 Water supply, sewerage and drainage
  Objective: to plan for the provision of water supply, sewerage and drainage services that efficiently and effectively meet State and community needs and protect the environment.

  Clause 19.03-3 Stormwater
  Objective: to reduce the impact of stormwater on bays and catchments.

5.2 LOCAL PLANNING POLICY FRAMEWORK

The following contains the relevant areas of the Municipal Strategic Statement (MSS) and Local Planning Policy Framework (LPPF) to this proposal.

Municipal Strategic Statement

- **Clause 21.05 Natural Environment**

  Clause 21.05-2 Waterways
  Objective: To protect, maintain and enhance waterways, rivers, wetlands and groundwater.

  Clause 21.05-3 Biodiversity
  Objective: To protect, maintain and enhance the biodiversity of the municipality.

  Clause 21.05-4 Coastal environments
  Objective: To protect, maintain and enhance the coast, estuaries and marine environment.

  Clause 21.05-8 Wildfire
  Objective: To minimise the impacts of wildfire.

- **Clause 21.07 Economic Development and Employment**

  Claude 21.07-5 Rural Areas
  Objectives: To protect and enhance the Bellarine Peninsula as a productive rural area with highly significant landscapes based on farming and environmental features.

  Clause 21.07-6 Tourism in rural areas
  Objective: to support tourism development in rural areas that respects the open rural landscape character of the area, and contributes to the economy.

- **Clause 21.14 The Bellarine Peninsula**
  Clause 21.14-2 Objectives incorporates to protect and enhance the rural and coastal environment on the Bellarine Peninsula and maintain non-urban breaks between settlements.

Local Planning Policies

- **Clause 22.05 Agriculture, Rural Dwellings and Subdivision**
  Objectives:

  - To support the ongoing use of the rural areas for agriculture and to preserve their farmed rural landscape.
  - To protect agricultural production and the normal operation of agricultural activities by preventing land use conflicts, particularly conflicts associated with the introduction of non-farm related dwellings into rural areas.

- **Clause 22.06 Tourism, Accommodation and Function Centre Development in Rural Areas** Objectives:
    - To support tourism development in rural areas that contributes to the growth of the tourism market.
    - To preserve the productive agricultural capacity of the land and where possible enhance the environmental condition of the land

5.3 PARTICULAR AND GENERAL PROVISONS

- **Clause 64 General Provisions for Use and Development of Land**

  Clause 64.03 supports the subdivision of land in more than one zone, where a permit is required to subdivide land and the land is located in more than one zone, a permit may be granted even if one lot does not comply with the minimum lot size requirements of a zone.

- **Clause 65 Decision Guidelines**

  Provides a basis for the responsible authority to determine whether the proposal will produce acceptable outcomes.

  Clause 65.02 Approval of an application to subdivide land.

5.4 ZONING AND OVERLAY CONTROLS

5.4.1 CURRENT ZONING

The subject site is located within Special Use Zone (SUZ), Farming Zone (FZ) and Rural Conservation Zone (RCZ) where the following policies apply.

The existing golf course area and the land previously proposed for incorporation within the course redevelopment are identified within SUZ3. The current subject site incorporates both a small section of land within the FZ and a section located within the RCZ, respectively located on the south side of Gill Road and along the edge of Lake Victoria.

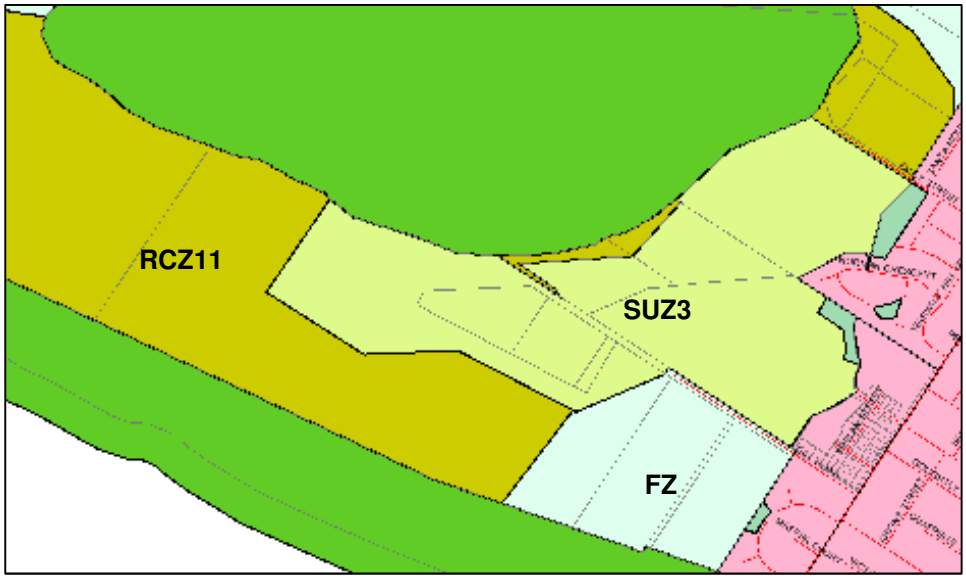


Figure 5: Current Zoning

Special Use Zone Schedule 3 Private Golf Courses

Under Clause 37.01 of the Geelong Planning Scheme the purpose is:

- To provide for the use and development of private golf courses;
- To ensure that the use and development of land for the purpose of private golf courses does not prejudice the amenity of surrounding areas.

Farming Zone

Under Clause 35.07 of the Planning Scheme the purpose is:

- To provide for the use of land for agriculture;
- Encourage the retention of productive agricultural land,
- Ensure that non-agricultural uses, including dwellings, do not adversely affect the use of the land for agriculture;
- Encourage the retention of employment and population to support rural communities;
- Encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.

Rural Conservation Zone, Schedule 11

Under Clause 35.06 of the Planning Scheme the purpose is to protect the ecological system of Lake Victoria from adverse run-off and effluent discharge.

5.4.2 PROPOSED ZONING

It is intended that the zones detailed in the preceding section continue, in varying levels, to apply to the land.

As detailed in Section 3 Proposal, the overall extent of the SUZ3 will be reduced. An area abutting the southern and south eastern extent of the SUZ3, currently identified as part of the RCZ11 and FZ, will be rezoned to SUZ3 to facilitate inclusion within the golf course (see Fig. 3).

In tandem with this, the majority of the land area previously identified within Amendment C67 of the Geelong Planning Scheme, will revert to the RCZ11 (see Fig. 3).

5.4.3 CURRENT OVERLAYS

Environmental Significance Overlay, Schedule 1 (ESO1) Areas of Flora and Fauna Habitat and of Geological and Natural Interest

The majority of the subject site is affected by ESO1, the purpose of which is:

- To conserve and protect areas of flora and fauna habitat and geological and natural interest.
- To ensure that development does not impact on the environmental significance of the land.
- To ensure that siting and design of any buildings and works maintains the environmental integrity of the land.

ESO1 relates to the protection of areas of flora and fauna habitat and of geological and natural interest.

Environmental Significance Overlay, Schedule 2 (ESO2) High Value Wetlands and Associated Habitat Protection

This overlay affects a small area of land on the edge of Lake Victoria within the subject site, the purpose of which is:

- To identify areas where the development of land may be affected by environmental constraints.
- To ensure that development is compatible with identified environmental values.

ESO2 relates to the protection of high value wetlands and the associated habitat protection of these areas.

Significant Landscape Overlay, Schedule 11 (SLO11)

The entire subject site is affected by SLO11 where the purpose is:

- To protect locally significant views and vistas that contribute to the landscape, including extensive and scenic out views across waterbodies from main roads and settlements.
- To strengthen the presence of indigenous vegetation throughout the area, particularly adjacent to lakes and waterbodies, at roadsides, and in settlements and riparian strips.
- To protect the landscape setting of places of cultural heritage significance.
- To protect cultural vegetation elements that positively contribute to the character of the landscape, including exotic wind breaks and feature planting around homesteads.
- To recognise and protect the continuation of the land as a working farmed landscape.

SLO11 relates to the environmental and landscape significance of Lake Victoria and the greater Lonsdale Lakes Wildlife Reserve, including the importance of protecting highly scenic views and maintaining biodiversity of the area.

Development Plan Overlay, Schedule 26 (DPO26)

The DPO covers the entirety of the land within SUZ3 together with the land area subject to the residential subdivision. The Development Plan for the Residential Subdivision was prepared and endorsed prior to commencement of the staged subdivision.

The DPO requirements for the Golf Course Area require that the golf course expansion provides for the protection and enhancement of the natural environment and implements the recommendations of relevant environmental assessment processes.

Land Subject to Inundation Overlay (LSIO)

The LSIO primarily affects those areas adjacent to Lake Victoria incorporated within the SUZ3 through Amendment C67 where the purpose is:

- To identify land in a floor storage or flood fringe area affected by the 1 in 100 year flood or any other area determined by the floodplain management authority.
- To ensure development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.
- To protect water quality in accordance with the provisions of relevant State Environment Protection Policies.
- To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health.

Bushfire Management Overlay (WMO)

The Overlay covers a small portion of the land on the southern boundary of the subject site, where it extends from the vegetated dune system (Public Conservation and Resource Zone). The purpose is:

- To ensure that development of land prioritises the protection of human life and strengthens community resilience to bushfire.
- To identify areas where the bushfire hazard warrants bushfire protection measures to be implemented.
- To ensure development is only permitted where the risk to life and property from bushfire can be reduced to an acceptable level.

6. PLANNING RESPONSE

The following provides an analysis of the proposal's consistency with the State and Local Planning Policy Framework and the relevant zoning and overlay provisions within the Greater Geelong Planning Scheme.

As indicated previously, the amendment is required to provide for the appropriate zoning to facilitate incorporation of land within the reconfiguration proposals for Lonsdale Golf Club, in addition to providing for the ongoing conservation of rural land no longer associated with those reconfiguration aspirations.

The reconfiguration has been strategically located through revision and refinement to minimise adverse impacts on the significant environment values and provide positive outcomes for the economic and social well-being of the Point Lonsdale community.

The Rural Conservation Zone and Farming Zone as currently applicable to the land, are not the most appropriate zones to facilitate the proposed reconfiguration of the golf course as envisaged by Lonsdale Golf Club. Where land is to be incorporated within the golf course, the application of the SUZ3, by its existing intent, would facilitate an appropriate zone in which this golf course could be reconfigured.

As already indicated, there are areas which, although currently identified within the SUZ3, are no longer intended to have a role in the golf course operations and, as such, the re-application of the RCZ11 as existing prior to 2013, would reinitiate the protection of the ecological system of Lake Victoria. It is considered that this approach to these significant flora and faunal habitat areas no longer required for the golf course expansion, is the most appropriate means to achieve the overarching environmental outcomes.

The overall proposal will assist in the protection and conservation of biodiversity, where the revised course expansion provides positive outcomes for reducing the impact on native vegetation/habitat, seeing the retention and protection of those habitats for native flora and fauna.

The changes to the proposals for the golf course in terms of use and management, will act to protect and enhance the environmental and habitat values of Lonsdale Lakes Wildlife Reserve and the surrounding land areas. It is considered that the active management of the golf course will be of benefit to the wider environment and the community.

The design and overall development of the golf course acknowledges the values of the surrounding area and responds accordingly. Appropriate revegetation, throughout the golf course, is envisaged to enhance existing plant communities and provide a net gain outcome.

The proposal will not impact on the hydrology of Lake Victoria or result in any significant increase in nutrient loads within the lake. It is considered that the presence of the RCZ11 land along the edge of Lake Victoria, will continue to provide a physical buffer from the golf course extension to the south.

It is considered that, in accord with the foregoing SPPF and LPPF policies, the reconfiguration can continue to provide the identified improvements to employment and long-term economic, social and cultural values. The development facilitates the opportunity to increase the number of visitors utilising not only the club facilities, but those provided within the wider extent of Point Lonsdale and the region as a whole (number of visits, length of stay, use of associated facilities etc.), facilitating value adding opportunities. It is considered that this accords with the overarching tourism objectives for Point Lonsdale, The Bellarine Peninsula and the wider G21 region, enhancing overall competitiveness within the local economy.

The proposal reflected in the two lot subdivision does not incorporate any significant level of agricultural land, the area proposed for inclusion having limited productive use. The inclusion of this small area of FZ land within the proposal will not impact the continued agricultural use of the reminder of the land, the golf course use being compatible with such use.

In responding to the intent of the amendment, the proposal provides zoned land consistent with the strategic directions established for Point Lonsdale and the Bellarine Peninsula. It also facilitates implementation of objectives seeking to protect coastal and rural landscapes and character, by providing zoned land for the protection and enhancement of conservation values related to Lake Victoria. The amendment of the zoning is supported through technical assessments which demonstrate that the reconfiguration provides for a reduction in the impacts on native vegetation, with increased opportunities to facilitate protection and conservation of the environment and local biodiversity.

This reduction in impact encompasses those land areas no longer identified for inclusion within the SUZ3, rather these areas are identified for 'back zoning' to the previously applied RCZ11, a zoning which will facilitate conservation outcomes that enhance the natural environment, with opportunity to positively affect the ecology of Lake Victoria and adjoining lagoons and marshlands.

As previously detailed, DPO26 is to be retained and will continue to identify the management documents and actions required in the development/reconfiguration of the golf course and its associated facilities. The Development Plan for the golf course will continue to require documentation in relation to those aspects identified to be addressed through the preparation of the following:

Landscape Masterplan; Environmental Management Framework/Plan (including a maintenance schedule), Stormwater Management Plan and documentation responsive to Coastal Acid Sulphate Soils Management.

As indicated, the proposals will have positive social and economic effects for Point Lonsdale and the wider Bellarine Peninsula in respect to the opportunities for local employment generation, both during construction and on-going, as well as value adding with tourism to the area.

The amendment is consistent with the Ministerial Direction on the Form and Content of Planning Schemes under *section 7(5) of the Planning and Environment Act 1987.*

As detailed in the foregoing sections, the proposals implement the intent of the State Planning Policy Framework by recognising and conserving biodiversity and ecology values, facilitating an on-going use that adds value within the tourism offering to assist the economic, social and cultural well-being of the local, regional and State community.

These outcomes similarly reflect the intent of the Local Planning Policy Framework, providing for the positive achievement of environmental, conservation and economic objectives of adopted policy.

As such, it is considered that the proposed amendment makes proper use of the Victorian Planning Provisions to achieve the land use and development outcomes.

7. CONCLUSION

The proposals provide for the rezoning of the land with subsequent subdivision. The foregoing report establishes a sound planning basis for City of Greater Geelong to support the combined Planning Scheme Amendment and Planning Permit Application.

The submission demonstrates consistency with State and Local Planning Policy Frameworks contained within the Geelong Planning Scheme, including Council's MSS and local planning policies. It is in accordance with the provisions of the zones and overlay controls, such that no adverse impacts will accrue.

The proposals are respectful of the environmental values of the subject land, and as such will not impact the amenity of adjoining properties.

For the reasons identified above and detailed throughout the assessments made in this report, it is respectfully requested that City of Greater Geelong support the preparation of a Planning Scheme Amendment to facilitate the rezoning of the subject land and process the associated planning permit application for the two (2) lot subdivision. In pursuit of this, we enclose draft documentation for consideration of both the associated planning permit application and for exhibition as part of the Amendment process.

APPENDIX A TITLE DOCUMENTS

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

VOLUME 10701 FOLIO 081

Security no : 124066981118Q
Produced 10/07/2017 08:04 am

LAND DESCRIPTION

Lot 1 on Title Plan 822391K.
PARENT TITLE Volume 09379 Folio 382
Created by instrument AB630970U 16/10/2002

REGISTERED PROPRIETOR

Estate Fee Simple
Joint Proprietors
SUSAN GLADYS HANLEY
MICHAEL JOHN HANLEY both of 25 GILL ROAD POINT LONSDALE VIC 3225
AJ674906M 18/05/2012

ENCUMBRANCES, CAVEATS AND NOTICES

CAVEAT as to part AN292780B 18/11/2016
Caveator
LONSDALE GOLF CLUB INC
Grounds of Claim
AGREEMENT WITH THE FOLLOWING PARTIES AND DATE.
Parties
THE REGISTERED PROPRIETOR(S)
Date
17/11/2016
Estate or Interest
FREEHOLD ESTATE
Prohibition
ABSOLUTELY
Lodged by
SLADEN LEGAL
Notices to
SLADEN LEGAL of LEVEL 5 707 COLLINS STREET MELBOURNE VIC 3008

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP822391K FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

DOCUMENT END

Caveat

Section 89 Transfer of Land Act 1958

The information in this form is colle
used for the purpose of maintaining

AN292780B
18/11/2016 $46.30 89

1. Land/s

Land Title

Volume Folio

Description THE LAND MARKED AS LOT 2 ON THE PLAN ANNEXED BEING PART OF THE LAND CONTAINED IN CERTIFICATE OF TITLE VOLUME 10701 FOLIO 081

2. Caveator/s

Caveator

Name LONSDALE GOLF CLUB INC.

ABN 7 5 4 8 9 4 3 3 0 7 2

3. Grounds of Claim

AGREEMENT WITH THE FOLLOWING PARTIES AND DATE.

Parties

THE REGISTERED PROPRIETOR(S)

Date of Claim

Date: (DD/MM/YYYY) 17/11/2016

4. Estate or Interest claimed

FREEHOLD ESTATE

5. Prohibition

ABSOLUTELY

6. Address for Service of Notice

Lawyer/Conveyancer/Firm Name

SLADEN LEGAL

Address

Property Name

Unit Type

Unit Number To Unit Number

Floor Type LEVEL

Floor Number 5 Floor Suffix

Unit Street No 707

Street Name COLLINS

Street Type STREET

Locality MELBOURNE

State VIC Postcode 3008

7. Signing

The caveator claims the estate or interest specified in the land described on the grounds set out. This caveat forbids the registration of any instrument affecting the estate or interest to the extent specified.

Signed by JOSHUA HUNTER, SLADEN LEGAL the Australian Legal Practitioner (under the Legal Profession Uniform Law (Victoria)) for Caveator:

JOSHUA ALLEN HUNTER
Sladen Legal
Level 5, 707 Collins Street, Melbourne
An Australian legal practitioner within the meaning of the Legal Profession Uniform Law (Victoria)

8. Date

Date: (DD/MM/YYYY) 18/11/2016

Caveat

Section 89 Transfer of Land Act 1958

The information in this form is collect
used for the purpose of maintaining p

AN292780B

18/11/2016 $46.30 89

9. Lodging Party

Customer Code 1636U

Reference 21604413

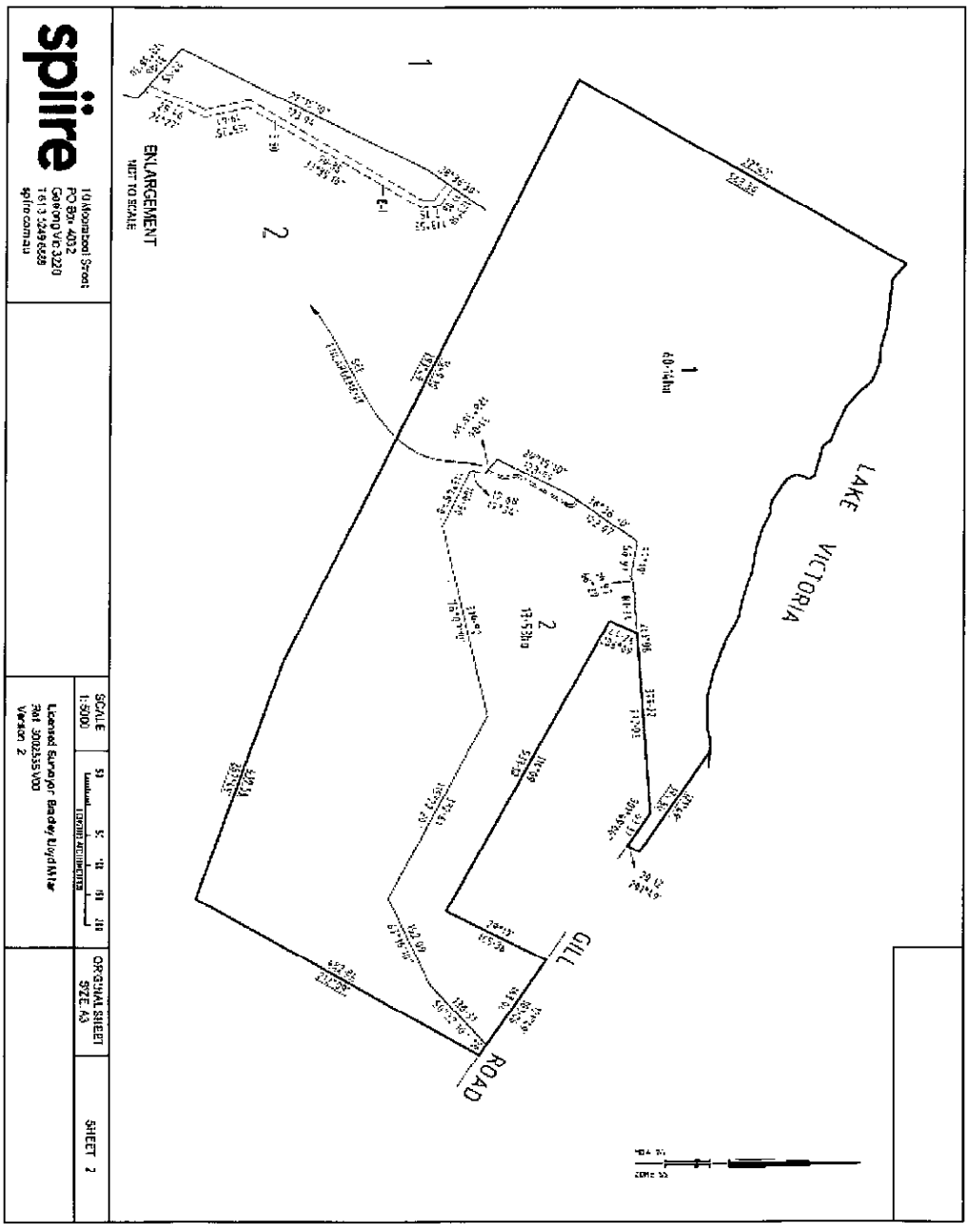
Annexure Page

Transfer of Land Act 1958

AN292780B
18/11/2016 $46.30 89

This is page 3 of Caveat dated 18/11/2016 between

Signatures of the Parties



30800812A

A1

1. If there is insufficient space to accommodate the required information in a panel of the attached form insert the words "See Annexure Page 2" (or as the case may be) and enter all the information on the Annexure Page under the appropriate panel heading.
2. The approved Annexure Pages must be properly identified and signed by the parties to the attached form to which it is annexed.
3. All pages must be attached together by being stapled in the top left corner.

THE BACK OF THIS FORM MUST NOT BE USED

Land Victoria, 570 Bourke Street, Melbourne, 3000, Phone 8636-2010

TITLE PLAN		EDITION 1	TP822391K

Location of Land

Parish: PAYWIT
Township:
Section:
Crown Allotment: 3
Block: 3

LTO Base Record: D.C.M.B.
Last Plan Reference:
Title References: CT/V.9379 F.382
Depth Limitation: NIL

NotationS

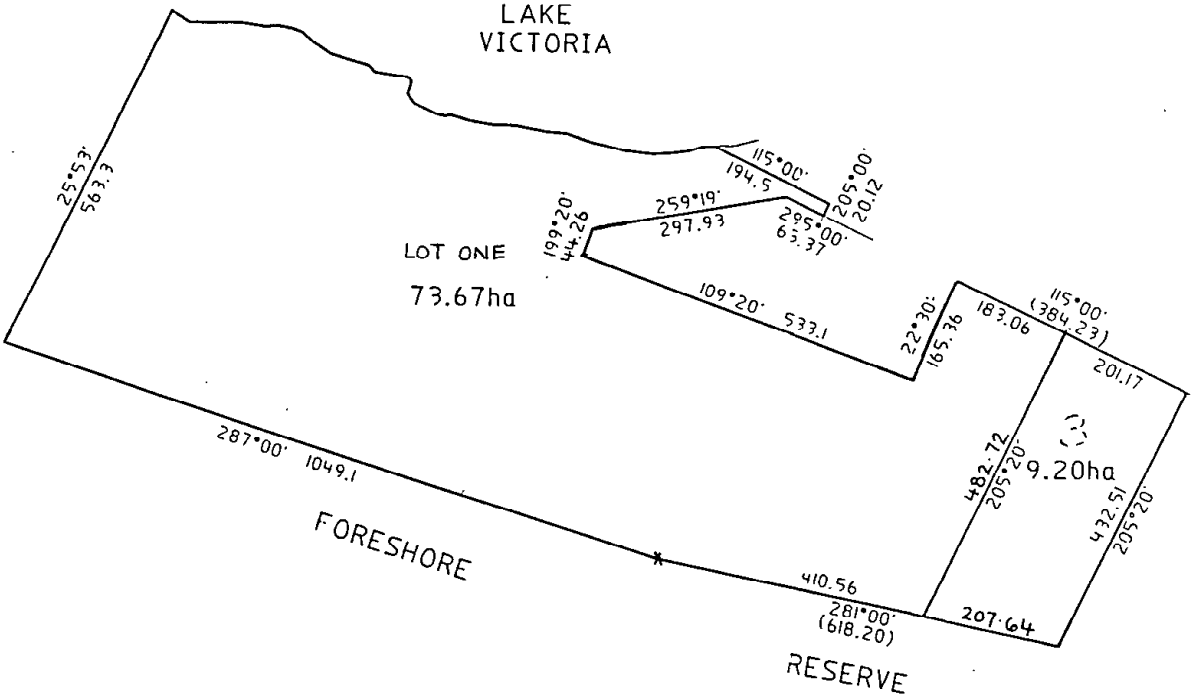
Easement Information

Easement Reference	Purpose / Authority	Width (Metres)	Origin	Land benefited / In favour of

THIS PLAN HAS BEEN PREPARED FOR LAND REGISTRY, LAND VICTORIA FOR TITLE DIAGRAM PURPOSES

Checked by ..

Date 20 / 01 / 03
Assistant Registrar of Titles



LENGTHS ARE IN METRES	SCALE	SHEET SIZE A3	FILE NO: AB630970U
LAND VICTORIA 570 Bourke Street Melbourne	Drawn By:	DEALING CODE:	Sheet 1 of 1

APPENDIX B SUBDIVISION PROPOSAL PLAN

PLAN OF SUBDIVISION

EDITION 1

PS 748989U

LOCATION OF LAND

PARISH: Paywit

TOWNSHIP: -

BLOCK: 3

CROWN ALLOTMENT: 3, 4, 5, 29 & 30

CROWN PORTION: -

TITLE REFERENCE: C/T VOL 10701 FOL 081

LAST PLAN REFERENCE: Lot 1 on TP 822391K

POSTAL ADDRESS: 19 - 73 Gill Road
(at time of subdivision) Point Lonsdale 3225

MGA94 CO-ORDINATES: E: 288 900 ZONE: 55
(of approx centre of land in plan) N: 5 760 440

VESTING OF ROADS AND/OR RESERVES

IDENTIFIER	COUNCIL/BODY/PERSON

NOTATIONS

DEPTH LIMITATION DOES NOT APPLY / 15.24 metres below the surface

SURVEY:
This plan is based on survey

STAGING:
This is not a staged subdivision
Planning Permit No.

This survey has been connected to permanent marks No(s). -

In Proclaimed Survey Area No. -

Notations

Land being subdivided is enclosed within thick continuous lines

Underlined dimensions shown thus 604·91 are not the result of this survey

Area of Lot 1 is by deduction based on BP2080D

DRAFT

EASEMENT INFORMATION

LEGEND: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Section 12(2) of the Subdivision Act 1988 applies to all of the land in this plan

Easement Reference	Purpose	Width (Metres)	Origin	Land Benefited/In Favour of
E-1	WAY	3.50	THIS PLAN	LOT 1 ON PS 748989U

spiire
10 Moorabool Street
PO Box 4032
Geelong Vic 3220
T 61 3 5249 6888
spiire.com.au

SURVEYORS FILE REF: 300253SV00

ORIGINAL SHEET SIZE: A3

Licensed Surveyor: Bradley Lloyd Millar

Version: 2

PS 748989U

LAKE VICTORIA

1
60·14ha

2
13·53ha

GILL ROAD

32°42'
563·30

99°19'
58·91

266°08'
81·34

379·27
297·93

63·37
301°49'00"

121°49'
194·50

20·12
201°49'

38°36'30"
122·07

10·97
68°29'

44·26
206°09'

29°15'10"
123·04

19·68
19°34'

31·06
128°36'30"

100·90
113°48'50"

319·80
78°07'10"

116°09'
533·10

121°49'
183·06

163·06

29°19'
165·36

130·31
50°32'10"

20

152·09
67°16'10"

332·61
115°22'20"

1049·10
293°49'

SEE ENLARGEMENT

482·84
212°09'

410·56
287°49'

MGA 94
ZONE 55

DRAFT

ENLARGEMENT
NOT TO SCALE

1

2

38°36'30"
123°10'
11·08
173°53'
7·75

E-1

29°15'10"
123·04

90·35
33°35'10"

3·50

165°25'
19·41

22·55
31·06
128°36'30"

29·46
26°27'

spiire
10 Moorabool Street
PO Box 4032
Geelong Vic 3220
T 61 3 5249 6888
spiire.com.au

SCALE		ORIGINAL SHEET	SHEET
1: 5000	50 50 100 150 200 LENGTHS ARE IN METRES	SIZE: A3	2

Licensed Surveyor: Bradley Lloyd Millar
Ref: 300253SV00
Version: 2

SCALE Units - m

0 40 80 200m

APPENDIX C BIODIVERSITY ASSESSMENT (BRETT LANE & ASSOCIATES)

LONSDALE GOLF COURSE: PROPOSED GOLF COURSE DEVELOPMENT

BIODIVERSITY ASSESSMENT

Lonsdale Golf Club

C/- Spiire Australia Pty Ltd

BL&A Brett Lane & Associates Pty. Ltd.
Ecological Research & Management
Suite 5 61 - 63 Camberwell Road, Hawthorn, VIC 3123
P.O. Box 337, Camberwell, VIC 3124
Ph. (03) 9815 2111
Fax. (03) 9815 2685

December 2016

Report No. 9038 (7.1)

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TABLES

FIGURES

APPENDICES

1. EXECUTIVE SUMMARY

Spiire Australia Pty Ltd, on behalf of the Lonsdale Golf Club, engaged Brett Lane & Associates Pty. Ltd. (BL&A) to conduct a biodiversity assessment of the proposed re-development of the Point Lonsdale Golf Course. An initial development proposal for the Lonsdale Golf Course is detailed in a consolidated flora and fauna assessment prepared by BL&A (2011). This current proposal is assessment against the findings of BL&A (2011).

This current assessment was commissioned to provide information on the extent and condition of native vegetation in the study area according to the current policy — Victoria's *Biodiversity assessment guidelines* (DEPI 2013) — as well as any potential impacts on flora and fauna matters listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This report outlines any implications under relevant national, state and local legislation and policy frameworks.

The vast majority of the study area was dominated by introduced grasses on fairways and putting greens, planted introduced trees and planted non-indigenous native trees. Remnant patch native vegetation totalling 9.131 hectares, mostly in the form of Coastal Alkaline Scrub (EVC 858) but with some Coastal Saltmarsh (EVC 9) and Estuarine Flats Grassland (EVC 914), was limited to linear strips. A total of 179 scattered trees were located in the east of the study area. Most of these trees are Coast Tea-tree. Numerous indigenous shrubs were scattered throughout the study area.

No flora species or ecological communities listed under the EPBC Act were recorded in the study area. One EPBC Act-listed fauna species — Orange-bellied Parrot — is likely to occasionally occur in the study area as suitable habitat is present.

The proposal will involve the re-development of the existing golf course and some adjacent land. The re-development will involve substantial earthworks and the installation of new infrastructure and facilities. The proposed development will result in the loss of 0.380 hectares of Coastal Alkaline Scrub (EVC 858) and 72 scattered trees. Orange-bellied Parrot is unlikely to be significantly impacted.

The following regulatory implications apply for the current development proposal:

- A planning permit under Clause 52.17 of the Greater Geelong Planning Scheme is required for the removal of native vegetation
- The current proposal would trigger a referral to DELWP as it meets the referral criteria
- The proposed development would result in an offset target of
    - 0.169 General Biodiversity Equivalence Units with a minimum Strategic Biodiversity Score of 0.201.
    - 1.560 specific units of habitat for Coast Twin-leaf; and
    - 1.556 specific units of habitat for Coast Wirilda.
- This offset is proposed to be achieved within the study area as ample suitable vegetation will be retained within the re-developed Golf Course.
- There are no implications for the current development proposal under the EPBC Act
- A Referral to the state Minister for Planning is not required under the EE Act for the aspects covered by the current investigation

Recommendations provided in this report should be considered during the design phase of the project.

2. INTRODUCTION

Spiire Australia Pty Ltd, on behalf of the Lonsdale Golf Club, engaged Brett Lane & Associates Pty. Ltd. (BL&A) to conduct a biodiversity assessment of the proposed re-development of the Point Lonsdale Golf Course. An initial development proposal for the Lonsdale Golf Course is detailed in a consolidated flora and fauna assessment prepared by BL&A (2011). This current proposal is assessment against the findings of BL&A (2011).

This current assessment was commissioned to provide information on the extent and condition of native vegetation in the study area according to the current policy — Victoria's *Biodiversity assessment guidelines* (DEPI 2013) — as well as any potential impacts on flora and fauna matters listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This report outlines any implications under relevant national, state and local legislation and policy frameworks.

The scope of the assessment included:

- A statement of the methods used and sources of information for the investigation, including any limitations, where applicable;
- The results of the review of existing information (including the DELWP Native Vegetation Information Management system — NVIM) and site survey, documenting the native vegetation and fauna habitat on the site;
- Determination of the likely risk-based assessment pathway under current native vegetation permitted clearing regulations using NVIM (i.e. low, moderate or high);
- A map of the site showing the results of the assessment based on aerial photographs obtained through NearMap (November 2016);
- A determination of the extent of any proposed native vegetation removal based on one development layout;
- A biodiversity equivalence analysis for the proposed use of the land under the Biodiversity Assessment Guidelines based on data supplied by DELWP; and
- Discussion of the implications of the findings for the proposed use of the land, specifically addressing relevant legislative and policy requirements.

This investigation was undertaken by a team from BL&A, comprising Brett Macdonald (Senior Ecologist) and Alan Brennan (Senior Ecologist & Project Manager).

3. SOURCES OF INFORMATION

3.1. Existing information

Existing information used for this investigation is described below. Note that 'study area' specifically refers to an approximately 53 hectare area incorporating the Lonsdale Golf Club and some adjacent land which is currently Zoned Special Use 3 Zone (SUZ3). This is bounded by residential uses in the east, Gill Road in the south, Lake Victoria to the west and Emily Street to the north.

3.1.1. Existing reporting and documentation

The reports, planning scheme and/or development plans below, relating to the study area were reviewed.

- Consolidated flora and fauna assessment carried out by BL&A in 2011 (BL&A 2011)
- Greater Geelong Planning Scheme
- Current development plan of the site — 0311-0212-04 Masterplan Final
- Preliminary Arboricultural Assessment by Tree Logic P/L (Tree Logic 2009)

3.1.2. Location and extent risk

The likely risk-based pathway for assessment of any proposed vegetation removal relies on the 'location risk' and 'extent risk' determined with the assistance of the online Native Vegetation Information Management system (NVIM) administered by the Department of Environment and Primary Industries (DELWP 2016c).

NVIM online mapping was viewed to determine the mapped location risk of the study area and to gain a preliminary indication of the extent risk, described in Section 4.1.2.

3.1.3. Native vegetation

Pre-1750 (pre-European settlement) vegetation mapping administered by DEPI was reviewed to determine the type of native vegetation likely to occur in the study area and surrounds. Information on Ecological Vegetation Classes was obtained from published EVC benchmarks. These sources included:

- Relevant EVC benchmarks for the Otway Plain bioregion[1] (DELWP 2016a); and
- Biodiversity Interactive Maps (DELWP 2016b).

3.1.4. Listed matters

Existing flora and fauna species records and information about the potential occurrence of listed matters was obtained from an area termed the 'search region', defined here as an area with a radius of ten kilometres from the approximate centre point of the study area (coordinates: Latitude 38˚ 16' 07" S and longitude 144˚ 36' 51" E).

The online *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Protected Matters Search Tool (DoEE 2016) was consulted to determine whether nationally listed species or communities potentially occurred in the search region based on habitat modelling.

[1] A bioregion is defined as "a geographic region that captures the patterns of ecological characteristics in the landscape, providing a natural framework for recognising and responding to biodiversity values". In

A list of the flora and fauna species recorded in the search region was obtained from the Victorian Biodiversity Atlas (VBA), a database administered by DELWP (2016c).

The online *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Protected Matters Search Tool (DoEE 2016) was consulted to determine whether nationally listed species or communities potentially occurred in the search region based on habitat modelling.

3.2. Field methodology

The methodology employed during the field assessments was in accordance with Victoria's *Native Vegetation Management Framework* (the Framework) (DNRE 2002), which was superseded by Victoria's *Biodiversity assessment guidelines* (the Guidelines) (DEPI 2013) on the 20th December 2013. As such, this development proposal will be assessed in accordance with the Guidelines, which, in terms of defining native vegetation, differs somewhat from the Framework. Definitions of native vegetation provided below are in accordance with the Guidelines, and where they differ from the Framework, and the implications of such differences, are discussed where applicable.

The field assessment was conducted between the 11th and 13th April 2011. During this assessment, the study area was surveyed initially by vehicle and areas supporting remnant native vegetation and/or fauna habitat were inspected in more detail on foot.

Sites in the study area found to support native vegetation or the potential to support listed matters were mapped. Mapping was undertaken through a combination of aerial photograph interpretation and ground-truthing using a hand held GPS (accurate to approximately five metres).

3.2.1. Native vegetation

Native vegetation is defined in the Victoria Planning Provisions as 'plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses'. The Guidelines define native vegetation as belonging to two categories (DEPI 2013):

- Remnant patch; or
- Scattered trees.

The definitions of these categories are provided below; along with the prescribed DEPI methods to assess them.

Remnant patch

A remnant patch of native vegetation is either:

- An area of native vegetation where at least 25 per cent of the total perennial understorey plant cover is native; and/or
- Any area with three or more native canopy trees[2] where the canopy foliage cover[3] is at least 20 per cent of the area.

Remnant patch condition is assessed using the habitat hectare method (Parkes *et al*. 2003; DSE 2004) whereby components of native vegetation (e.g. tree canopy,

[2] A canopy tree is a reproductively mature tree that is greater than 3 metres in height and is normally found in the upper layer of the relevant vegetation type.
[3] Foliage cover is the proportion of the ground that is shaded by vegetation foliage when lit from directly above.

understorey and ground cover) are assessed against an EVC benchmark. The score effectively measures the percentage resemblance of the vegetation to its original condition.

The NVIM system (DEPI 2014) provides modelled condition scores for native vegetation to be used in certain circumstances (Section 4.1.2). All wetlands mapped on DEPI's native vegetation layer are treated as a remnant patch.

The condition score assists in defining the biodiversity equivalence score (described in Section 4.1.2) of the native vegetation and the offset targets if removal of native vegetation is approved.

It should be noted that the above definition (Guidelines) of a remnant patch differs from that employed during the field assessments (Framework) in that only perennial vegetation is considered under the Guidelines. This poses only a minor limitation, as the vast majority of vegetation assessed was perennial.

Scattered trees

The Guidelines define scattered trees as a native canopy tree[2] that does not form part of a remnant patch of native vegetation.

Scattered trees are counted and their DBH (diameter at breast height or 1.3 metres above ground) measured if this is estimated to be greater than 35 centimetres.

It should be noted that the above definition (Guidelines) of a scattered tree differs from that employed during the field assessments (Framework) in that only sexually mature canopy trees greater than three metres in height, that do not form part of a remnant patch are considered under the Guidelines. This poses a significant limitation, as tree height and sexual maturity were not considered during the field assessments.

As such, based on field experience, canopy trees recorded in the study area above the following DBH thresholds were deemed likely to be greater than three metres in height and sexually mature, hence they were classified as scattered trees:

- *Coast Teatree, Moonah and Coast Wirilda – 10 centimetres DBH or greater;*
- *Coast Banksia and Drooping Sheoak – 15 centimetres DBH or greater; and*
- *Rough-barked Manna-gum – 20 centimetres DBH or greater.*

Consideration of the above listed species as Scattered Trees was a Council requirement.

3.2.2. Flora species and habitats

Records of flora species were made in conjunction with sampling methods used to undertake habitat hectare assessments of native vegetation, described above. Specimens requiring identification using laboratory techniques were collected.

The potential for habitats to support listed flora species was assessed based on the criteria outlined below:

- The presence of suitable habitat for flora species such as soil type, floristic associations and landscape context; and
- The level of disturbance of suitable habitats by anthropogenic disturbances and invasions by pest plants and animals.

3.3. Limitations of field assessment

Whilst this assessment was not designed to provide an exhaustive inventory of flora and fauna species in the study area, all efforts were made to schedule the site assessment at a time of year when the majority of native vegetation life forms and habitat niches are likely to be present. Nevertheless, site assessments may fail to record all life-forms because of the seasonal absence of some species and sampling nature of surveys.

The scattered tree assessment was primarily based on data collected by an arborist (Tree Logic 2009). As such, the trees were measured at 1.4 metres above ground, as opposed to the required height for DBH (1.3 metres above ground) under the methodology required for the Framework or Guidelines. These measurements were checked by a botanist and if found to be in error a new DBH measurement was made. For Biodiversity Equivalents calculations, trees in groups are each assigned the average. Therefore, the calculations are likely to be an over-estimate.

Wherever appropriate, a precautionary approach was adopted in the discussion of implications for matters listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and Victorian *Flora and Fauna Guarantee Act 1988*. That is, where insufficient evidence was available on the potential occurrence of a listed species, it is assumed that it could be in an area of suitable habitat. The implications under legislation and policy are considered accordingly.

4. LEGISLATIVE BACKGROUND

4.1. Planning and Environment Act 1987

Victoria's planning schemes are constituted under the *Planning and Environment Act 1987*. This section discusses planning provisions in the local planning scheme applicable to flora and fauna.

4.1.1. Local provisions

Overlays

No planning overlays relevant to this investigation currently cover the study area.

4.1.2. State provisions

State planning provisions are established under the Victorian *Planning and Environment Act 1987*.

Under Clause 52.17 of all Victorian Planning Schemes a planning permit is required for the destruction, lopping or removal of native vegetation on land which has an area of 0.4 hectares or more (together with all contiguous land in single ownership). This includes the removal of dead trees with a DBH (diameter at breast height or 1.3 metres) of 40 centimetres or more and any individual scattered native plants.

Before issuing a planning permit, Responsible Authorities are obligated to refer to Clause 12.01 (Biodiversity) in the Planning Scheme. This refers in turn to the following online tool and document:

- The Native Vegetation Information Management system (NVIM) (DELWP 2016a) — a database administered by DELWP; and
- *Permitted clearing of native vegetation – Biodiversity assessment guidelines* (DEPI 2013a).

These are discussed below.

Native Vegetation Information Management system (NVIM)

The online Native Vegetation Information Management system (NVIM) is an interactive mapping tool, incorporated in the planning scheme, which provides some of the information required to accompany a permit to remove native vegetation. It does not replace the application process.

The information provided by NVIM can include the following (described in more detail below):

- The *location risk* of the native vegetation;
- The *condition* of the native vegetation – used for the low-risk assessment pathway only;
- The *strategic biodiversity score* of the native vegetation proposed to be removed; and
- The *native vegetation offset* requirement – used for the low risk assessment pathway only.

Biodiversity assessment guidelines

Guidelines objective

As set out in *Permitted clearing of native vegetation – Biodiversity assessment guidelines* ('the Guidelines') the objective for permitted clearing of native vegetation in Victoria is 'No net loss in the contribution made by native vegetation to Victoria's biodiversity'. The key strategies for ensuring this outcome when considering an application to remove native vegetation are:

- Avoiding the removal of native vegetation that makes a significant contribution to Victoria's biodiversity;
- Minimising impacts on Victoria's biodiversity from the removal of native vegetation; and
- Where native vegetation is permitted to be removed, ensuring it is offset in a manner that makes an equivalent contribution to Victoria's biodiversity made by the native vegetation to be removed.

Note: if native vegetation does not meet the definition of either a remnant patch or scattered trees, the Guidelines are not required to be applied.

Risk-based assessment pathways

The first step in determining the type of assessment required for any site in Victoria is to determine the risk to biodiversity associated with the proposed native vegetation removal and therefore the risk-based assessment pathway for the proposed native vegetation removal. There are three risk-based pathways for assessing an application to remove native vegetation, below.

- Low risk
- Moderate risk
- High risk

This risk-based assessment pathway is determined by two factors, outlined below.

Extent risk – the area in hectares proposed to be removed *or* the number of scattered trees. *Note:* extent risk also includes any native vegetation clearing for which permission has been granted in the last five years.

Location risk – the likelihood that removing native vegetation in a location will have an impact on the persistence of a rare or threatened species classified into three categories: Location A, Location B and Location C.

The risk-based pathway for assessing an application to remove native vegetation is determined by the following matrices for remnant patches and scattered trees:

Extent (remnant patches)	Location A	Location B	Location C
< 0.5 hectares	Low	Low	High
≥ 0.5 hectares and < 1 hectare	Low	Moderate	High
≥ 1 hectare	Moderate	High	High
Extent (scattered trees)	**Location A**	**Location B**	**Location C**
< 15 scattered trees	Low	Moderate	High
≥ 15 scattered trees	Moderate	High	High

Notes: All native vegetation within any subdivision plot of less than 0.4 hectares is deemed to be lost; For applications with combined removal of both remnant patch and scattered trees, the extent of the scattered trees is converted to an area by assigning a standard area of 0.071 hectares per tree – the total extent is then used to determine the risk-based pathway.

The presence of any Location B or Location C risk categories within an area of proposed native vegetation removal means this whole area of removal is considered to belong to that category for the purpose of determining the risk-based assessment pathway.

Strategic biodiversity score

The strategic biodiversity score generated by NVIM acts as a measure of the site's importance for Victoria's biodiversity relative to other locations across the landscape. It is calculated based on a weighted average of scores across an area of native vegetation proposed for removal on a site.

Habitat importance

Habitat importance mapping produced by DEPI is based on one or a combination of habitat importance models, habitat distribution models or site record data. It identifies the following:

- *Habitat importance for dispersed species* – based on habitat distribution models and assigned a habitat importance score ranging from 0 to 1; and
- *Highly localised habitats* – considered to be equally important for a particular species and assigned a habitat importance score of 1.

Habitat importance mapping is used to determine the type of offset required under the moderate and high risk assessment pathways.

Biodiversity equivalence

Biodiversity equivalence scores are used to quantify losses in the contribution to Victoria's biodiversity from removing native vegetation and gains in this contribution from a native vegetation offset.

There are two types of biodiversity equivalence scores depending on whether or not the site makes a contribution to the habitat of a Victorian rare or threatened species.

- A *general* biodiversity equivalence score is a measure of the contribution native vegetation on a site makes to Victoria's biodiversity overall and applies when no habitat importance scores are applicable according to the equation:

General biodiversity equivalence score =
habitat hectares x strategic biodiversity score

- A *specific* biodiversity equivalence score is a measure of the contribution that native vegetation on a site makes to the habitat of a particular rare or threatened species – calculated for each such species for which the site provides important habitat (using habitat importance scores provided by DEPI) according to the equation:

Specific biodiversity equivalence score =
habitat hectares x habitat importance score

Offset requirements

A native vegetation offset is required for the approved removal of native vegetation. Offsets conform to one of two types and each type incorporates a risk factor to address the risk of offset failing:

- A *general* offset applies if the removal of native vegetation impacts Victoria's overall biodiversity and has an offset risk factor of 1.5 applied according to the equation:

General risk-adjusted offset requirement =
general biodiversity equivalence score (clearing site) x 1.5

- A *specific* offset applies if the native vegetation makes a significant impact to habitat for a rare or threatened species determined by a *specific-general offset test*. It applies to each species impacted and has an offset risk factor of 2 applied according to the equation:

Specific risk-adjusted offset requirement =
specific biodiversity equivalence score (clearing site) x 2

Note: if native vegetation does not meet the definition of either a remnant patch or scattered trees an offset is not required.

DELWPreferral criteria

Clause 66.02 of the planning scheme determines the role of DELWP in the assessment of native vegetation removal permit applications. If an application is referred, DELWP may make certain recommendations to the responsible authority in relation to the permit application. An application to remove native vegetation must be referred to DELWP in the following circumstances:

- Applications where the native vegetation to be removed is 0.5 hectares or more;
- All applications in the high risk-based pathway;
- Applications where a property vegetation plan applies to the site; and
- Applications on Crown land which is occupied or managed by the responsible authority.

Summary of the assessment process

The assessment process, decision guidelines and offset requirements for approved native vegetation removal are outlined in Table 1.

Table 1: Summary of the assessment process and offset requirements

Risk-based pathway	Assessment quantum inputs	Decision guidelines	Offset requirements
Low	▪ Habitat hectares* (NVIM) ▪ Strategic biodiversity score (NVIM) ▪ General biodiversity equivalence score	An application for removal cannot be refused on biodiversity grounds (unless it is not in accordance with any property vegetation plan that applies to the site). *Note: this guideline also applies to native vegetation that does not meet the definition of either a remnant patch or scattered trees.*	General offset applies: ▪ General offset = general biodiversity equivalence score (clearing site) x 1.5 ▪ Offset must be located in the same CMA^ or Local Government Area as the removal ▪ Offset must have a strategic biodiversity score at least 80% of the native vegetation removed ▪ Offset must be secured before the removal of native vegetation
Moderate **High**	▪ Habitat hectares* (site assessment) ▪ Strategic biodiversity score (NVIM) ▪ Habitat importance scores for each Victorian rare and threatened species ▪ Specific biodiversity equivalence score for each rare and threatened species *OR* ▪ *General* biodiversity equivalence score if no habitat importance scores apply	The responsible authority will consider: ▪ The strategic biodiversity score and habitat importance score of the native vegetation proposed to be removed ▪ Any property vegetation plan that applies to the site ▪ Whether reasonable steps have been taken to ensure that impacts of the proposed removal of native vegetation on biodiversity have been minimised with regard to the contribution to biodiversity made by the native vegetation to be removed and the native vegetation to be retained ▪ Whether an offset has been identified that meets the requirements ▪ The need to remove native vegetation to create defendable space to reduce the risk of bushfire In addition to the considerations for the moderate pathway (above) the responsible authority will determine whether the native vegetation to be removed makes a significant contribution to Victoria's biodiversity. This includes considering: ▪ Impacts on important habitat for rare or threatened species, particularly highly localised habitat ▪ Proportional impacts on remaining habitat for rare or threatened species ▪ If the removal of the native vegetation will contribute to a cumulative impact that is a significant threat to the persistence of a rare or threatened species ▪ The availability of, and potential for, gain from offsets	If the specific biodiversity equivalence scores for any rare and threatened species fails the specific-general offset test, then a general offset applies (as above) Otherwise, a specific offset applies for <u>each</u> rare and threatened species: ▪ Specific offset = specific biodiversity equivalence score (clearing site) x 2 ▪ Offset must be located in the same species habitat anywhere in Victoria as determined by DELWP habitat importance mapping ▪ When a specific offset is required for multiple species, the offset site must satisfy the specific offset requirements for all of these species or multiple offset sites may be used ▪ Offset must be secured before the removal of native vegetation

*** Habitat hectares = condition score (out of 1) x extent (hectares)**

^ Catchment Management Authority

Note: All applications must provide information about the vegetation to be removed such as location and address of the property, description of the vegetation, maps and recent dated photographs.

4.2. EPBC Act

The *Environment Protection and Biodiversity Conservation Act 1999* protects a number of threatened species and ecological communities that are considered to be of national conservation significance. Any significant impacts on these species require the approval of the Australian Minister for the Environment.

If there is a possibility of a significant impact on nationally threatened species or communities or listed migratory species, a Referral under the EPBC Act should be considered. The Minister will decide after 20 business days whether the project will be a 'controlled action' under the EPBC Act, in which case it cannot be undertaken without the approval of the Minister. This approval depends on a further assessment and approval process (lasting between three and nine months, depending on the level of assessment).

4.3. FFG Act

The Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act) lists threatened and protected species and ecological communities (DEPI 2013c, DEPI 2013d). The FFG Act has limited direct application to private land. However, any removal of threatened flora species or communities (or protected flora) listed under the FFG Act from public land requires a licence under the Act. This licence is obtained from DELWP.

The FFG Act only applies to private land in relation to the commercial collection of grasstrees, tree-ferns and sphagnum moss. It does not apply to development on private land.

4.4. EE Act

The "Ministerial Guidelines for Assessment of Environmental Effects under the *Environment Effects Act 1978"* (DSE 2006), identifies the following criteria related to flora and fauna which assist in determining whether a Referral to the State Minister for Planning is required:

- Potential clearing of ten hectares or more of native vegetation from an area that is of an EVC identified as endangered by the Department of Environment and Primary Industries (DEPI 2013b);
- Potential long-term loss of a significant proportion (1 to 5% depending upon conservation status of species concerned) of known remaining habitat or population of a threatened species in Victoria;
- Potential long-term change to a wetland's ecological character, where that wetland is Ramsar listed, or listed in 'A Directory of Important Wetlands in Australia';
- Potential major effects upon the biodiversity of aquatic ecosystems over the long term;
- Potential significant effects on matters listed under the *Flora and Fauna Guarantee Act 1988*.

One or a combination of these criteria may trigger a requirement for a Referral to the Victorian Minister for Planning who will determine if an EES is required.

5. ASSESSMENT RESULTS

5.1. Site assessment

5.1.1. Site description

The study area for this investigation is approximately 53 hectares of privately owned land located at Point Lonsdale, 25 kilometres south-east of Geelong. It is bounded by residential uses in the east, Gill Road in the south, Lake Victoria to the west and Emily Street to the north.

The vast majority of the study area was dominated by introduced grasses on fairways and putting greens, planted introduced trees and planted non-indigenous native trees. Remnant patch native vegetation mostly in the form of Coastal Alkaline Scrub (EVC 858) but with some Coastal Saltmarsh (EVC 9) and Estuarine Flats Grassland (EVC 914) was limited to linear strips often located between the fairways within the existing golf course. Numerous scattered trees were located in the east of the study area. Numerous indigenous shrubs were scattered throughout the study area.

The scattered indigenous trees and shrubs represent the remnants of what would have been Coastal Alkaline Scrub (EVC 858) and comprised species such as Coast Tea-tree (*Leptospermum laevigatum*), Coast Wattle (*Acacia sophorae* spp.), Coast Beard-heath (*Leucopogon parvifolius*), Coast Banksia (*Banksia integrifolia*), Drooping She-oak (*Allocasuarina verticillata*) and Moonah (*Melaleuca lanceolata*).

The remnant patches of Coastal Alkaline Scrub (EVC 858) were generally dominated by indigenous Coast Tea-tree, Coast Beard-heath, Seaberry Saltbush (*Rhagodia candolleana*) and Bower Spinach (*Tetragonia* spp.). The ground layer was dominated by introduced grasses and forbs, such as Panic Veldt Grass (*Ehrharta erecta*), Hare's-tail Grass (*Lagurus ovatus*), Buffalo Grass (*Stenotaphrum secundatum*), Kikuyu (*Cenchrus clandestinus*) and Couch (*Cynodon dactylon* var. *dactylon*). Introduced weed cover was very high, logs were absent, litter was well below benchmark cover and recruitment was poor.

An account of the environmental history of the study area is provided in BL&A (2011) as are more details on the site description.

The study area lies within the Otway Plain bioregion and falls within the Corangamite catchment and Greater Geelong local government area. It is currently zoned Zoned Special Use 3 Zone (SUZ3) in the Greater Geelong Planning Scheme.

5.1.2. Ecological Vegetation Classes

Pre–European EVC mapping (DSE 2011b) indicated that the study area and surrounds would have supported Coastal Alkaline Scrub (EVC 858) and Coastal Saltmarsh / Mangrove Shrub Mosaic (EVC 302) prior to European settlement based on modelling of factors including rainfall, aspect, soils and remaining vegetation.

Evidence on site, including floristic composition and soil characteristics, suggested that modified examples of Coastal Alkaline Scrub (EVC 858), Coastal Saltmarsh (EVC 9) and Estuarine Flats Grassland (EVC 914) were present in the study area (Figure 1).

Coastal Alkaline Scrub (EVC 858) has an endangered conservation status in the Otway Plain bioregion. The benchmark for this EVC (Appendix 5) describes it as: "*Near-coastal, deep calcareous (alkaline) and largely stable sand dunes and swales commonly*

dominated by Moonah Melaleuca lanceolata ssp. lanceolata. It occurs at low elevations of 20-60 metres above sea level, average annual rainfall is approximately 550-950 millimetres, and it occurs on a variety of geologies and soil types. Low woodland or tall shrubland to 8 metres tall, typically with a medium shrub layer, small shrub layer and sedges, grasses and herbs in the ground layer."

Coastal Saltmarsh (EVC 9) has an endangered conservation status in the Otway Plain bioregion. The benchmark for this EVC (Appendix 5) provides this description: "*Occurs on and immediately above marine and estuarine tidal flats and contains distinct floristic communities as bands or zones in the same location, depending on the positioning of the various floristic communities in relation to the saline environment. Consists of a range of life forms including succulent herbs, low succulent shrubs, rushes and sedges."*

Estuarine Flats Grassland (EVC 914) is not listed as occurring in the Otway Plain bioregion. In the Victorian Volcanic Plain bioregion, which is adjacent to the Otway Plain bioregion, Estuarine Flats Grassland has an extinct bioregional conservation status. For the purposes of assigning conservation significance Estuarine Flats Grassland is considered Endangered in the Otway Plain bioregion. The benchmark for this EVC (Appendix 5) describes it as a: *"Closed to open grassland to 1.5 metres tall with occasional shrubs occurring on estuarine flats often associated with current or old beach berms or sand sheets that are occasionally inundated by high tides. Occupies areas on marginally higher ground inland from Coastal Saltmarsh."*

Remnant patches (referred to herein as a habitat zones) comprising the abovementioned EVCs were identified in the study area. The habitat hectare assessment results for these habitat zones are provided in Table 2. More detailed habitat scoring results are presented in Appendix 1.

Table 2: Summary of habitat hectare assessment results

Habitat Zone	EVC no.	Area (ha)	Habitat Score (out of 100)
A	EVC 858	0.49199	66
B	EVC 858	1.00822	38
C	EVC 858	1.00287	42
D	EVC 858	0.30432	42
E	EVC 858	0.33646	38
F	EVC 858	0.39166	38
G	EVC 858	2.7338	63
H	EVC 858	0.42771	49
I	EVC 858	1.79857	47
J	EVC 858	0.12689	35
N	EVC 914	0.26526	56
O	EVC 914	0.20263	68
P	EVC 9	0.0406	68
Total		9.131	

Legend

Study area

Development layout

Native vegetation

Coastal Alkaline Scrub

Coastal Saltmarsh

Estuarine Flats Grassland

Scattered trees

0 50 100 200 Meters

Figure 1: Study area and native vegetation

Project: Londsdale Golf Course Redevelopment

Client: Londsdale Golf Club Inc

Project No.: 9038	Date: 28/11/2016	Created By: N. May / A. Brennan

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5.1.3. Scattered trees

Scattered trees recorded in the study area would have once comprised the canopy component of Coastal Alkaline Scrub (EVC 858). A large tree component is not defined in this EVC benchmark. However, in the Corangamite CMA Native Vegetation Plan, scattered trees other than those defined in the Framework are considered. On this basis, the study area supports 179 scattered trees. Details of these are provided in Appendix 2, including their retention/removal status. The location of scattered trees in the study area is presented in Figure 1.

The scattered tree assessment was primarily based on data collected by an arborist (Tree Logic 2009), though the data was checked in the field by BL&A.

5.1.4. Listed flora species

VBA records (DELWP 2016) and the EPBC Protected Matters Search Tool (DSEWPC 2011) indicate that within the search region there are records of, or there occurs potential suitable habitat for five species listed under the federal EPBC Act. No EPBC Act-listed species were recorded during the field assessments.

The likelihood of occurrence in the study area of threatened species listed under EPBC Act is addressed in Table 3. Species that may occur in the study area are highlighted. This analysis indicates that no suitable habitat occurs on site for any species listed in Table 3.

5.1.5. Listed fauna species

A review of fauna species listed under EPBC Act which have previously been recorded within the search region or for which potential habitat occurs according to the EPBC Act Protected Matters Search Tool, as documented in BL&A (2011), revealed that the study area provided some saltmarsh habitat for the EPBC Act-listed Orange-bellied Parrot within Habitat Zone P. BL&A (2011) found that this habitat is only used infrequently and does not comprise primary breeding or foraging habitat for this species.

The proposed development will not impact this habitat that is located on the northern boundary of the study area and is isolated from the golf course by a water body. The proposal will not reduce the area of occupancy, fragment or adversely impact on habitat critical to the survival of this species (BL&A 2011).

5.1.6. Listed ecological communities

No listed ecological communities were recorded in the study area.

Table 3: Listed flora species from the search region and likelihood of occurrence in the study area

Common Name	Scientific Name	Conservation Status	Habitat	Likelihood of occurrence
		EPBC		
Clover Glycine	*Glycine latrobeana*	V	Grasslands and grassy woodlands (Jeanes 1996).	No suitable habitat present therefore **unlikely to occur.**
Curly Sedge	*Carex tasmanica*	V	Seasonally damp sites in grassland or grassy woodland. Mean annual rainfall across the known geographic range is generally in the 300–600 mm range (Cheal 1990). Seasonally wet, fertile, heavy basalt clay soils, usually around the margins of slightly saline drainage lines or freshwater swamps (DSE 2010).	No suitable habitat present therefore **unlikely to occur.**
Leafy Greenhood	*Pterostylis cucullata*	V	Tea-tree scrubs on tall sandy and calcareous dunes, in moist, open or even deep shaded locations (Jones 1994).	Correct habitat present, although highly modified, therefore **unlikely to occur.**
Maroon Leek-orchid	*Prasophyllum frenchii*	E	Favouring heathland and grassland on black clays (Bates 1994).	No suitable habitat present therefore **unlikely to occur.**
Spiny Rice-flower	*Pimelea spinescens*	CE	Grasslands or open shrublands on basalt derived soils (Entwisle 1996). Prefers shallow depressions and drainage lines with moderate soil moisture (D.Coppolino pers. obs.).	No suitable habitat present therefore **unlikely to occur.**

Notes: C = Critically Endangered; E = Endangered; V = Vulnerable; L = Listed as threatened under FFG Act

6. IMPACTS AND REGULATORY IMPLICATIONS

6.1. Proposed development

The proposal will involve the re-development of the existing golf course and some adjacent land. The proposal will involve substantial earthworks and the installation of new infrastructure and facilities.

6.2. Impacts of proposed development under state provisions

Impacts on ecological values have been identified for the proposed development, which are outlined below and presented in Figure 2.

6.2.1. Native vegetation

The proposed development will result in the loss of 0.380 hectares of Coastal Alkaline Scrub (EVC 858) and 72 scattered trees (Appendix 6).

6.2.2. Important habitat

DELWP found that the proposal does not have a proportional impact on any rare or threatened species' habitats above the specific offset threshold (Appendix 6).

6.3. Native Vegetation Information Management system

The Biodiversity assessment report by DELWP (Appendix 6) provided the information below required for a permit to remove native vegetation from the study area. These concepts are described in more detail in Section 4.1.2.

6.3.1. Risk–based assessment pathway for the site

The study area was mapped as *Location Risk A* and *C.*

A total of 0.222 hectares of Coastal Alkaline Scrub (EVC 858) and 106 indigenous scattered trees have been approved for removal on the property immediately to the east within the last five years. This adjacent property is part of the overall golf course re-development.

Therefore, based on the criteria outlined in Section 4.1.2 the Guidelines stipulate that the proposal will be assessed under the *High* risk assessment pathway and that general and specific offsets apply to the proposed native vegetation removal.

6.4. State provisions

A planning permit under Clause 52.17 of the Greater Geelong Planning Scheme is required for the removal of native vegetation. The current proposal would trigger a referral to DELWP as it meets the criteria specified in Section 4.1.2.

6.4.1. Offset requirements

Offsets required for the proposed removal of native vegetation has been determined by DELWP (Appendix 6). The proposed development would result in an offset target of:

- 0.169 general units with a minimum Strategic Biodiversity Score of 0.201.
- 1.560 specific units of habitat for Coast Twin-leaf; and
- 1.556 specific units of habitat for Coast Wirilda.

Legend

- Study area
- Development layout
- Scattered trees to be removed
- Native vegetation to be removed

Native vegetation

- Coastal Alkaline Scrub
- Coastal Saltmarsh
- Estuarine Flats Grassland
- Scattered trees

0 50 100 200 Meters

Figure 2: Native vegetation to be removed

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This offset is proposed to be achieved within the study area as ample suitable vegetation will be retained within the re-developed golf course.

Under the Guidelines all offsets must be secured prior to the removal of native vegetation.

6.5. EPBC Act implications

Based on the relevant guidelines, the proposed development is unlikely to result in a significant impact on any EPBC Act listed values, as none have been recorded or are expected to make significant use of habitat in the study area.

Therefore, there are no implications under the EPBC Act.

6.6. FFG Act implications

The FFG Act does not apply to development on private land. As such, there are no implications under this legislation.

6.7. EE Act implications

A Referral to the state Minister for Planning is not required under the EE Act for the aspects covered by the current investigation.

6.8. Recommendations for mitigation

Best-practice development and construction recommendations are provided in Appendix 4. These should be considered to ensure impacts are minimised to flora and/or fauna, and native vegetation.

7. REFERENCES

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Appendix 1: Detailed habitat hectare assessment results

Habitat Zone			A	B	C	D	E	F	G	H	I	J	K	L	M	Q	N	O	P
EVC Number			858	858	858	858	858	858	858	858	858	858	858	858	858	858	914	914	9
Total area of zone (Ha)																			
Site Condition	Large Old Trees	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Tree Canopy Cover	5	5	4	5	5	5	5	3	5	5	3	3	3	3	3	NA	NA	NA
	Understorey	25	15	5	5	5	5	5	15	15	15	5	15	15	5	10	4	15	15
	Lack of Weeds	15	13	4	7	7	7	7	11	7	4	11	6	7	0	6	20	15	15
	Recruitment	10	3	0	1	1	1	1	6	3	6	0	0	6	0	0	6	6	6
	Organic Matter	5	5	5	5	5	5	5	3	5	3	3	2	5	2	2	4	5	5
	Logs	5	5	5	3	3	0	0	5	0	0	0	0	3	0	0	NA	NA	NA
	*Site Condition Total**		*52.9*	*26.45*	*29.9*	*29.9*	*26.45*	*26.45*	*49.45*	*40.25*	*37.95*	*25.3*	*29.9*	*44.85*	*11.5*	*24.15*	*46.38*	*55.92*	*55.92*
Landscape Condition	Patch Size	10	8	8	8	8	8	8	8	6	6	6	6	6	6	6	6	8	8
	Neighbourhood	10	1	0	0	0	0	0	2	0	0	1	1	1	0	0	1	1	1
	Distance to Core	5	4	4	4	4	4	4	4	3	3	3	3	3	3	4	3	3	3
	subtotal		*13*	*12*	*12*	*12*	*12*	*12*	*14*	*9*	*9*	*10*	*10*	*10*	*9*	*10*	*10*	*12*	*12*
Total Habitat Score		**100**	**66**	**38**	**42**	**42**	**38**	**38**	**63**	**49**	**47**	**35**	**40**	**55**	**21**	**34**	**56**	**68**	**68**

* Modified approach to habitat scoring - refer to Table 14 of DEPI's Vegetation Quality Assessment Manual (DSE, 2004); # Habitat hectares = habitat score/100 X area [ha])

Appendix 2: Scattered trees in the study area

Tree No.	Common Name	DBH (cm)	Retained/lost
1	Coast Tea-tree	10	Remove
2	Coast Tea-tree	30	Remove
3	Coast Tea-tree	32	Retain
4	Coast Tea-tree	38	Retain
5	Coast Tea-tree	27	Retain
6	Coast Tea-tree	23	Retain
7	Coast Tea-tree	22	Remove
8	Coast Tea-tree	23	Remove
9	Coast Tea-tree	15	Remove
10	Coast Tea-tree	20	Retain
11	Coast Tea-tree	22	Remove
12	Coast Tea-tree	24	Remove
13	Coast Tea-tree	20	Remove
14	Coast Tea-tree	19	Remove
15	Coast Tea-tree	21	Remove
16	Coast Tea-tree	15	Remove
17	Coast Tea-tree	19	Remove
18	Coast Tea-tree	21	Remove
19	Coast Tea-tree	29	Remove
20	Coast Tea-tree	11	Remove
21	Coast Tea-tree	19	Remove
22	Coast Tea-tree	41	Remove
23	Coast Tea-tree	37	Remove
24	Coast Tea-tree	19	Remove
25	Coast Tea-tree	38	Remove
26	Coast Tea-tree	22	Remove
27	Coast Tea-tree	20	Remove
28	Coast Tea-tree	18	Remove
29	Coast Tea-tree	23	Remove
30	Coast Tea-tree	23	Remove
31	Coast Tea-tree	20	Remove
32	Coast Tea-tree	25	Remove
33	Moonah	14	Retain
34	Coast Tea-tree	27	Retain
35	Coast Tea-tree	17	Remove
36	Coast Tea-tree	22	Remove
37	Coast Tea-tree	19	Remove
38	Coast Tea-tree	20	Remove
39	Coast Tea-tree	17	Retain
40	Coast Tea-tree	25	Remove

41	Coast Tea-tree	18	Retain
42	Coast Tea-tree	31	Remove
43	Coast Tea-tree	13	Retain
44	Coast Tea-tree	28	Remove
45	Coast Tea-tree	11	Remove
46	Coast Tea-tree	29	Remove
47	Coast Tea-tree	21	Remove
48	Coast Tea-tree	0	Remove
49	Coast Tea-tree	18	Remove
50	Coast Tea-tree	25	Remove
51	Coast Tea-tree	17	Remove
52	Coast Tea-tree	13	Remove
53	Coast Tea-tree	16	Remove
54	Coast Tea-tree	15	Remove
55	Coast Tea-tree	29	Remove
56	Coast Tea-tree	20	Remove
57	Coast Tea-tree	12	Remove
58	Coast Tea-tree	11	Remove
59	Coast Tea-tree	12	Remove
60	Coast Tea-tree	11	Remove
61	Coast Tea-tree	20	Remove
62	Coast Tea-tree	17	Remove
63	Coast Tea-tree	16	Remove
64	Coast Tea-tree	17	Remove
65	Coast Tea-tree	15	Remove
66	Coast Tea-tree	19	Remove
67	Coast Tea-tree	20	Remove
68	Coast Tea-tree	21	Remove
69	Coast Tea-tree	25	Remove
70	Coast Tea-tree	39	Remove
71	Coast Tea-tree	17	Remove
72	Coast Tea-tree	10	Retain
73	Coast Tea-tree	25	Remove
74	Coast Tea-tree	40	Remove
75	Coast Tea-tree	13	Remove
76	Coast Tea-tree	23	Remove
77	Coast Tea-tree	22	Remove
78	Moonah	16	Retain
79	Moonah	12	Retain
80	Moonah	13	Retain
81	Moonah	15	Retain
82	Moonah	11	Retain
83	Coast Tea-tree	25	Remove
84	Moonah	9	Retain

85	Coast Tea-tree	38	Remove
86	Coast Tea-tree	33	Remove
87	Coast Tea-tree	18	Remove
88	Coast Tea-tree	30	Remove
89	Coast Tea-tree	20	Remove
90	Coast Tea-tree	22	Remove
91	Coast Tea-tree	33	Remove
92	Coast Tea-tree	25	Remove
93	Moonah	24	Retain
94	Coast Tea-tree	24	Retain
95	Coast Tea-tree	13	Retain
96	Coast Tea-tree	41	Retain
97	Moonah	32	Retain
98	Coast Banksia	50	Remove
99	Coast Tea-tree	25	Remove
100	Coast Tea-tree	18	Retain
101	Coast Tea-tree	30	Remove
102	Coast Banksia	23	Remove
103	Coast Tea-tree	26	Retain
104	Moonah	40	Retain
105	Coast Tea-tree	15	Remove
106	Coast Tea-tree	28	Remove
107	Coast Tea-tree	46	Remove
108	Coast Tea-tree	19	Remove
109	Coast Tea-tree	18	Remove
110	Coast Tea-tree	16	Remove
111	Coast Tea-tree	19	Remove
112	Coast Tea-tree	19	Remove
113	Coast Tea-tree	32	Remove
114	Coast Tea-tree	36	Remove
115	Coast Tea-tree	13	Remove
116	Coast Tea-tree	21	Remove
117	Coast Tea-tree	25	Remove
118	Coast Tea-tree	25	Remove
119	Coast Tea-tree	0	Retain
120	Coast Tea-tree	0	Retain
121	Coast Tea-tree	0	Remove
122	Coast Tea-tree	52	Retain
123	Coast Tea-tree	11	Retain
124	Coast Tea-tree	15	Retain
125	Coast Tea-tree	12	Retain
126	Coast Tea-tree	17	Retain
127	Coast Tea-tree	10	Retain
128	Coast Tea-tree	11	Retain

129	Coast Tea-tree	20	Remove
130	Coast Tea-tree	27	Retain
131	Coast Tea-tree	18	Retain
132	Coast Tea-tree	20	Retain
133	Coast Tea-tree	30	Retain
134	Coast Tea-tree	20	Retain
135	Coast Tea-tree	26	Retain
136	Coast Tea-tree	21	Retain
137	Coast Tea-tree	30	Retain
138	Coast Tea-tree	14	Remove
139	Coast Tea-tree	15	Retain
140	Coast Tea-tree	19	Remove
141	Coast Tea-tree	34	Remove
142	Coast Tea-tree	22	Retain
143	Coast Tea-tree	27	Remove
144	Coast Tea-tree	20	Remove
145	Coast Tea-tree	24	Remove
146	Coast Tea-tree	20	Remove
147	Coast Tea-tree	16	Retain
148	Coast Tea-tree	15	Retain
149	Coast Tea-tree	9	Retain
150	Coast Tea-tree	20	Retain
151	Coast Tea-tree	9	Retain
152	Coast Tea-tree	17	Retain
153	Coast Tea-tree	29	Retain
154	Coast Banksia	27	Retain
155	Coast Tea-tree	26	Retain
156	Drooping She-oak	30	Retain
157	Drooping She-oak	10	Retain
158	Coast Tea-tree	25	Remove
159	Coast Tea-tree	17	Remove
160	Coast Banksia	25	Retain
161	Moonah	12	Retain
162	Moonah	13	Retain
163	Coast Tea-tree	26	Retain
164	Moonah	12	Retain
165	Coast Tea-tree	12	Retain
166	Coast Tea-tree	24	Retain
167	Coast Tea-tree	28	Retain
168	Coast Wirilda	8	Remove
169	Coast Tea-tree	26	Retain
170	Coast Tea-tree	23	Retain
171	Coast Tea-tree	18	Retain
172	Coast Tea-tree	52	Retain

173	Coast Tea-tree	21	Retain
174	Coast Tea-tree	21	Retain
175	Coast Tea-tree	17	Retain
176	Coast Tea-tree	13	Remove
177	Coast Tea-tree	31	Retain
178	Coast Tea-tree	14	Retain
179	Coast Tea-tree	11	Retain

Notes: DBH = Diameter at breast height (130 cm from the ground); * indicates DBH based on highest value from arborists report (Tree Logic 2009); ^ Referred to collectively by Tree Logic (2010) as Tree 677e.

Appendix 3: Guidelines for impacts to trees

DELWP guidelines (DSE 2010) provide definitions regarding tree retention and losses. These are outlined below, and it is considered that they should be applied to scattered trees and edges of treed remnant patches when determining the proximity of development to retained native vegetation.

Any tree is deemed lost when:

- Earthworks encroach on more than 10% of its Tree Retention Zone (TRZ) during construction activities. Tree Retention Zones:
    - Are defined as the area from the respective tree within a radius of 12 times the DBH of the respective tree, including the area above and below ground, notwithstanding it can be a minimum of two metres and a maximum of 15 metres radius around the respective tree
    - Extend at least one metre outside the crown projection, if the tree is a Tree Fern (DSE 2010)
    - Must be securely fenced off with high-visibility temporary fencing and appropriately signed as "Tree Retention Zone – keep out"
- Directional drilling within its TRZ occurs at less than 600 millimetres below the surface, or is not confirmed to be appropriate (including considerations concerning bore hole width) by a qualified arborist
- Lopping removes more than 1/3 of its crown
- Its trunk is damaged
- It is likely to pose a risk to safety or property as a result of the proposed development/works (e.g. a dwelling is proposed to be constructed near a tree that a qualified arborist has deemed likely to pose a risk to the dwelling)

Appendix 4: General development recommendations

Consideration should be given to including the measures described below in a construction and operational environmental management plan for the project.

- The proposed development should be designed in a way that does not alter the site's hydrology in areas that support native vegetation.
- Construction contractors should be inducted into an environmental management program for construction works.
- All environmental controls should be checked for compliance on a regular basis.

Construction phase:

- Environmentally sensitive areas including retained native vegetation should be securely fenced at two metres from the perimeter and appropriately signed. All machinery and earthworks are to be excluded from these areas.
- Tree Retention Zones (TRZs) are to be established and maintained around all retained scattered trees for the duration of construction activities. Construction and construction-related activities are to be excluded from the TRZ. Encroachment into the TRZ (including earthworks such as trenching for pipelines or cabling, etc. that disturb the root zone) must not affect more than 10% of the total area of the TRZ. Directional drilling must not be undertaken within TRZs, unless:
    - The directional drilling bore is at least 600 millimetres deep; AND
    - A qualified arborist has confirmed in writing that the radius of the bore will not significantly damage the tree causing it to be lost in the future; AND
    - A qualified arborist has confirmed in writing that the use of directional drilling is appropriate for the specific project/works.
- Any tree pruning should be undertaken by an experienced arborist to prevent disease or unnecessary damage to the tree or disturbance to understorey vegetation during tree trimming.
- Screens should be erected around the construction area in the vicinity of Habitat Zone P to reduce any potential disturbance to Orange-bellied Parrot.
- Any stockpiling should occur outside of environmentally sensitive areas.
- All machinery should enter and exit works sites along defined routes that do not impact on native vegetation or cause soil disturbance and weed spread.
- All machinery brought on site should be weed and pathogen free. This is important for environmental and agricultural protection. Soil borne pathogens such as Cinnamon Fungus and livestock diseases can be easily transported by machinery.
- All machinery wash down, lay down and personnel rest areas should be defined (fenced) and located in disturbed areas.
- Best practice erosion control should be installed where an erosion hazard is identified, erosion control activities should include:
- The use of sediment fences down slope of exposed soil and stockpiles.
- Bunding of stockpiles.
- Minimisation of the area of disturbed soil at any one time.

Post-construction phase:

- Weed control, by an experienced bush regenerator, is to be carried out along disturbed areas after construction to control any weed outbreaks in bushland or wetland areas.
- The use of local indigenous plant species, of local genetic provenance, should be considered in the landscaping of any development on the site. Locally indigenous species generally have low water-use requirements, high survival rates and provide habitat to local fauna species. The following species, commonly recorded within EVC 858, should be considered for use in landscaping.
    - Moonah (Melaleuca lanceolata ssp. Lanceolata)
    - Drooping Sheoak (Allocasuarina verticillata)
    - Sweet Bursaria (Bursaria spinosa ssp. Spinosa)
    - Coast Wattle (Acacia longifolia ssp. Sophorae)
    - Coast Beard-heath (Leucopogon parviflorus)
    - Coast Wirilda (Acacia retinodes var. Uncifolia)
    - Silky Guinea-flower (Hibbertia sericea s.l.)
    - Trailing Ground-berry (Acrotriche prostrate)
    - Common Bottle-daisy (Lagenophora stipitata)
    - Cinquefoil Cranesbill (Geranium potentilloides)
    - Bidgee-widgee (Acaena novae-zelandiae)
    - Kidney-weed (Dichondra repens)
    - Shady Wood-sorrel (Oxalis exilis)
    - Spiny-headed Mat-rush (Lomandra longifolia)
    - Black-anther Flax-lily (Dianella revoluta s.l.)
    - Common Grass-sedge (Carex breviculmis)
    - Common Wheat-grass (Elymus scaber var. scaber)
    - Bristly Wallaby-grass (Austrodanthonia setacea)
    - Knobby Club-sedge (Ficinia nodosa)
    - Small-leaved Clematis (Clematis microphylla)
    - Love Creeper (Comesperma volubile)

Coast Tea-tree (*Leptospermum laevigatum*) should not be used in landscaping as it is considered to be an environmental weed within the development area (CoGG, letter dated 30th January 2014).

Appendix 5: EVC benchmark

Otway Plain bioregion:

Coastal Alkaline Scrub (EVC 858);

Coastal Saltmarsh (EVC 9); and

Estuarine Flats Grassland (EVC 914).

Department of Sustainability and Environment

EVC/Bioregion Benchmark for Vegetation Quality Assessment

Otway Plain bioregion

EVC 858: Coastal Alkaline Scrub (*syn.* Calcarenite Dune Woodland)

Description:
Near-coastal, deep calcareous (alkaline) and largely stable sand dunes and swales commonly dominated by Moonah *Melaleuca lanceolata* ssp. *lanceolata*. It occurs at low elevations of 20-60 m above sea level, average annual rainfall is approximately 550-950 mm, and it occurs on a variety of geologies and soil types. Low woodland or tall shrubland to 8 m tall, typically with a medium shrub layer, small shrub layer and sedges, grasses and herbs in the ground layer.

Tree Canopy Cover:

%cover	Character Species	Common Name
30%	*Melaleuca lanceolata* ssp. *lanceolata*	Moonah
	Allocasuarina verticillata	Drooping Sheoak
	Leptospermum laevigatum	Coast Tea-tree
	Bursaria spinosa ssp. *spinosa*	Sweet Bursaria

Understorey:

Life form	#Spp	%Cover	LF code
Medium Shrub	3	20%	MS
Small Shrub	1	1%	SS
Prostrate Shrub	1	5%	PS
Large Herb	2	1%	LH
Medium Herb	5	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	1	5%	LTG
Medium to Small Tufted Graminoid	4	10%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Scrambler or Climber	2	1%	SC
Bryophytes/Lichens	na	20%	BL
Total understorey projective foliage cover		**85%**	

LF Code	Species typical of at least part of EVC range	Common Name
MS	*Acacia longifolia* ssp. *sophorae*	Coast Wattle
MS	*Leucopogon parviflorus*	Coast Beard-heath
MS	*Acacia retinodes* var. *uncifolia*	Coast Wirilda
SS	*Hibbertia sericea* s.l.	Silky Guinea-flower
PS	*Acrotriche prostrata*	Trailing Ground-berry
MH	*Lagenophora stipitata*	Common Bottle-daisy
MH	*Geranium potentilloides*	Cinquefoil Cranesbill
MH	*Acaena novae-zelandiae*	Bidgee-widgee
SH	*Dichondra repens*	Kidney-weed
SH	*Oxalis exilis*	Shady Wood-sorrel
LTG	*Lomandra longifolia*	Spiny-headed Mat-rush
MTG	*Dianella revoluta* s.l.	Black-anther Flax-lily
MTG	*Carex breviculmis*	Common Grass-sedge
MTG	*Elymus scaber* var. *scaber*	Common Wheat-grass
MTG	*Austrodanthonia setacea*	Bristly Wallaby-grass
MNG	*Ficinia nodosa*	Knobby Club-sedge
SC	*Clematis microphylla*	Small-leaved Clematis
SC	*Comesperma volubile*	Love Creeper

Victoria The Place To Be

EVC 858: Coastal Alkaline Scrub (*syn.* Calcarenite Dune Woodland) - Otway Plain bioregion

Recruitment:
Continuous

Organic Litter:
40 % cover

Logs:
5 m/0.1 ha. (note: large log class does not apply)

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	*Rhamnus alaternus*	Italian Buckthorn	low	high
MS	*Chrysanthemoides monilifera*	Boneseed	high	high
LNG	*Holcus lanatus*	Yorkshire Fog	high	high
MTG	*Catapodium rigidum*	Fern Grass	high	low
MNG	*Lagurus ovatus*	Hare's-tail Grass	high	low
MNG	*Vulpia* spp.	Fescue	high	low

Published by the Victorian Government Department of Sustainability and Environment April 2004

EVC/Bioregion Benchmark for Vegetation Quality Assessment

Otway Plain bioregion

EVC 9: Coastal Saltmarsh

Description:
Occurs on and immediately above marine and estuarine tidal flats and contains distinct floristic communities as bands or zones in the same location, depending on the positioning of the various floristic communities in relation to the saline environment. Consists of a range of life forms including succulent herbs, low succulent shrubs, rushes and sedges.

Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	1	10%	MS
Small Shrub	1	5%	SS
Prostrate Shrub	1	5%	PS
Medium Herb	3	15%	MH
Small or Prostrate Herb	1	5%	SH
Large Tufted Graminoid	1	5%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	1	1%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Soil Crust	na	10%	S/C
Total understorey projective foliage cover		**65%**	

LF Code		Species typical of at least part of EVC range	Common Name
MS		*Sclerostegia arbuscula*	Shrubby Glasswort
MS	r	*Avicennia marina ssp. australasica*	White Mangrove
SS		*Suaeda australis*	Austral Seablite
SS		*Frankenia pauciflora var. gunnii*	Southern Sea-heath
PS		*Wilsonia humilis*	Silky Wilsonia
MH		*Sarcocornia quinqueflora*	Beaded Glasswort
MH		*Samolus repens*	Creeping Brookweed
MH		*Hemichroa pentandra*	Trailing Hemichroa
LNG		*Juncus kraussii ssp. australiensis*	Sea Rush
MNG		*Triglochin striatum*	Streaked Arrowgrass
MNG		*Distichlis distichophylla*	Australian Salt-grass

Recruitment:
Continuous

Organic Litter:
10% cover

Weediness:
There are no consistent weeds in this EVC.

EVC 9: Coastal Saltmarsh - Otway Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment April 2004

For more information contact: Customer Service Centre, 136 186

www.dse.vic.gov.au

Appendix 6: Biodiversity assessment report (DELWP)

Biodiversity impact and offset requirements report

This report **does not represent an assessment by DELWP** of the proposed native vegetation removal. It provides additional biodiversity information to support moderate and high risk-based pathway applications for permits to remove native vegetation under clause 52.16 or 52.17 of planning schemes in Victoria.

Date of issue: **30/11/2016** **DELWP ref: BLA_0419**
Time of issue: **10:38 am**

Project ID	BLA_9038_Londsdale_GC

Note: This report has been generated based on information for proposed removal of native vegetation and other native vegetation that was permitted to be removed on the same property with the same ownership as the native vegetation to be removed in the past five years, as shown in Appendix 3 of this report. The risk-based pathway and the specific-general offset test have been calculated on the combined area of the proposed and past native vegetation removal.

Summary of marked native vegetation (past and proposed removal of native vegetation)

Risk-based pathway	**High**
Total extent	13.120 ha
Remnant patches	0.602 ha
Scattered trees	178 trees
Location risk	C

Summary of marked native vegetation proposed to be removed

Total extent	5.444 ha
Remnant patches	0.380 ha
Scattered trees	72 trees

Strategic biodiversity score of all marked native vegetation	0.398

Offset requirements if a permit is granted

If a permit is granted to remove the marked native vegetation, a requirement to obtain a native vegetation offset will be included in the permit conditions. The offset must meet the following requirements:

Offset type	**General offset**
General offset amount (general biodiversity equivalence units)	0.169 general units
General offset attributes	
Vicinity	Corangamite Catchment Management Authority (CMA) **or** Greater Geelong City Council
Minimum strategic biodiversity score	0.201[1]
Offset type	**Specific offset(s)**
Specific offset amount (specific biodiversity equivalence units) and attributes	1.560 specific units of habitat for Coast Twin-leaf 1.556 specific units of habitat for Coast Wirilda

See Appendices 1 and 2 for details in how offset requirements were determined.

NB: values presented in tables throughout this document may not add to totals due to rounding

[1] Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

Next steps

Any proposal to remove native vegetation must meet the application requirements of the high risk-based pathway and it will be assessed under the high risk-based pathway.

If you wish to remove the marked native vegetation you are required to apply for a permit from your local council. Council will then refer your application to DELWP for assessment, as required. **This report is not a referral assessment by DELWP.**

The biodiversity assessment report from NVIM and this biodiversity impact and offset report should be submitted with your application for a permit to remove native vegetation you plan to remove, lop or destroy.

The Biodiversity assessment report generated by the tool within NVIM provides the following information:

- The location of the site where native vegetation is to be removed.
- The area of the patch of native vegetation and/or the number of any scattered trees to be removed.
- Maps or plans containing information set out in the *Permitted clearing of native vegetation – Biodiversity assessment guidelines*
- The risk-based pathway of the application for a permit to remove native vegetation

This report provides the following information to meet application requirements for a permit to remove native vegetation:

- Confirmation of the risk-based pathway of the application for a permit to remove native vegetation
- The strategic biodiversity score of the native vegetation to be removed
- Information to inform the assessment of whether the proposed removal of native vegetation will have a significant impact on Victoria's biodiversity, with specific regard to the proportional impact on habitat for any rare or threatened species.
- The offset requirements should a permit be granted to remove native vegetation.

Additional application requirements must be provided with an application for a permit to remove native vegetation in the moderate or high risk-based pathways. These include:

- A habitat hectare assessment report of the native vegetation that is to be removed
- A statement outlining what steps have been taken to ensure that impacts on biodiversity from the removal of native vegetation have been minimised
- An offset strategy that details how a compliant offset will be secured to offset the biodiversity impacts of the removal of native vegetation.

Refer to the *Permitted clearing of native vegetation – Biodiversity assessment guidelines* and for a full list and details of application requirements.

Authorised by the Victorian Government, 8 Nicholson Street, East Melbourne.

For more information contact the DELWP Customer Service Centre 136 186

Appendix 1 – Biodiversity impact of removal of native vegetation

Habitat hectares

Habitat hectares are calculated for each habitat zone within your proposal using the extent and condition scores in the GIS data you provided.

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
1-1-B7	0.380	0.008	0.003
2-1-B8	0.380	0.005	0.002
3-1-B10	0.380	0.008	0.003
4-1-B13	0.380	0.001	0.000
5-1-B16	0.380	0.000	0.000
6-1-B18	0.380	0.001	0.000
7-1-B20	0.380	0.001	0.001
8-1-B22	0.380	0.001	0.000
9-1-B400	0.380	0.015	0.006
10-1-C49	0.420	0.001	0.001
11-1-C52	0.420	0.003	0.001
12-1-D44	0.420	0.015	0.006
13-1-E24	0.380	0.005	0.002
14-1-F27	0.380	0.043	0.016
15-1-F29	0.380	0.004	0.002
16-1-F32	0.380	0.038	0.015
17-1-F325	0.380	0.033	0.013
18-1-F34	0.380	0.000	0.000
19-1-F38	0.380	0.015	0.006
20-1-F41	0.380	0.000	0.000
21-1-G101	0.630	0.006	0.003
22-1-G103	0.630	0.001	0.001
23-1-G106	0.630	0.014	0.009
24-1-G111	0.630	0.000	0.000
25-1-G114	0.630	0.002	0.001
26-1-G115	0.630	0.000	0.000
27-1-G302	0.630	0.013	0.008
28-1-G56	0.630	0.002	0.001
29-1-G60	0.630	0.001	0.001

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
30-1-G62	0.630	0.000	0.000
31-1-G64	0.630	0.004	0.002
32-1-G66	0.630	0.000	0.000
33-1-G68	0.630	0.005	0.003
34-1-G70	0.630	0.005	0.003
35-1-G72	0.630	0.000	0.000
36-1-G73	0.630	0.014	0.009
37-1-G74	0.630	0.000	0.000
38-1-G78	0.630	0.001	0.001
39-1-G80	0.630	0.008	0.005
40-1-G82	0.630	0.000	0.000
41-1-G85	0.630	0.001	0.000
42-1-G87	0.630	0.002	0.001
43-1-G89	0.630	0.001	0.001
44-1-G91	0.630	0.027	0.017
45-1-G94	0.630	0.022	0.014
46-1-G99	0.630	0.001	0.000
47-1-I123	0.470	0.009	0.004
48-1-H118	0.490	0.000	0.000
49-1-I124	0.470	0.003	0.001
50-1-I126	0.470	0.000	0.000
51-1-I129	0.470	0.000	0.000
52-1-I131	0.470	0.000	0.000
53-1-I133	0.470	0.001	0.000
54-1-I135	0.470	0.003	0.001
55-1-I137	0.470	0.001	0.000
56-1-I139	0.470	0.012	0.006
57-1-I142	0.470	0.002	0.001
58-1-I143	0.470	0.001	0.001
59-1-I146	0.470	0.008	0.004
60-1-I148	0.470	0.003	0.001
61-1-I149	0.470	0.010	0.005
62-1-I151	0.470	0.000	0.000

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
63-1-J158	0.350	0.001	0.001
64-1-ST202	0.200	0.070	0.014
65-1-ST154	0.200	0.070	0.014
66-1-ST155	0.200	0.070	0.014
67-1-ST106	0.200	0.070	0.014
68-1-ST105	0.200	0.070	0.014
69-1-ST104	0.200	0.070	0.014
70-1-ST103	0.200	0.070	0.014
71-1-ST101	0.200	0.070	0.014
72-1-ST99	0.200	0.070	0.014
73-1-ST100	0.200	0.070	0.014
74-1-ST102	0.200	0.070	0.014
75-1-ST96	0.200	0.070	0.014
76-1-ST98	0.200	0.070	0.014
77-1-ST97	0.200	0.070	0.014
78-1-ST95	0.200	0.070	0.014
79-1-ST94	0.200	0.070	0.014
80-1-ST93	0.200	0.070	0.014
81-1-ST92	0.200	0.070	0.014
82-1-ST293	0.200	0.070	0.014
83-1-ST295	0.200	0.070	0.014
84-1-ST287	0.200	0.070	0.014
85-1-ST294	0.200	0.070	0.014
86-1-ST288	0.200	0.070	0.014
87-1-ST66	0.200	0.070	0.014
88-1-ST65	0.200	0.070	0.014
89-1-ST72	0.200	0.070	0.014
90-1-ST277	0.200	0.070	0.014
91-1-ST70	0.200	0.070	0.014
92-1-ST71	0.200	0.070	0.014
93-1-ST67	0.200	0.070	0.014
94-1-ST69	0.200	0.070	0.014
95-1-ST68	0.200	0.070	0.014

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
96-1-ST64	0.200	0.070	0.014
97-1-ST63	0.200	0.070	0.014
98-1-ST61	0.200	0.070	0.014
99-1-ST62	0.200	0.070	0.014
100-1-ST60	0.200	0.070	0.014
101-1-ST290	0.200	0.070	0.014
102-1-ST289	0.200	0.070	0.014
103-1-ST278	0.200	0.070	0.014
104-1-ST19	0.200	0.070	0.014
105-1-ST21	0.200	0.070	0.014
106-1-ST22	0.200	0.070	0.014
107-1-ST20	0.200	0.070	0.014
108-1-ST24	0.200	0.070	0.014
109-1-ST23	0.200	0.070	0.014
110-1-ST25	0.200	0.070	0.014
111-1-ST274	0.200	0.070	0.014
112-1-ST34	0.200	0.070	0.014
113-1-ST26	0.200	0.070	0.014
114-1-ST28	0.200	0.070	0.014
115-1-ST18	0.200	0.070	0.014
116-1-ST33	0.200	0.070	0.014
117-1-ST31	0.200	0.070	0.014
118-1-ST32	0.200	0.070	0.014
119-1-ST27	0.200	0.070	0.014
120-1-ST276	0.200	0.070	0.014
121-1-ST30	0.200	0.070	0.014
122-1-ST57	0.200	0.070	0.014
123-1-ST58	0.200	0.070	0.014
124-1-ST29	0.200	0.070	0.014
125-1-ST59	0.200	0.070	0.014
126-1-ST56	0.200	0.070	0.014
127-1-ST55	0.200	0.070	0.014
128-1-ST275	0.200	0.070	0.014

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
129-1-ST35	0.200	0.070	0.014
130-1-ST36	0.200	0.070	0.014
131-1-ST37	0.200	0.070	0.014
132-1-ST273	0.200	0.070	0.014
133-1-ST46	0.200	0.070	0.014
134-1-ST54	0.200	0.070	0.014
135-1-ST272	0.200	0.070	0.014
TOTAL			**1.195**

Impacts on rare or threatened species habitat above specific offset threshold

The specific-general offset test was applied to your proposal. The test determines if the proposed removal of native vegetation has a proportional impact on any rare or threatened species habitats above the specific offset threshold. The threshold is set at 0.005 per cent of the total habitat for a species. When the proportional impact is above the specific offset threshold a specific offset for that species' habitat is required.

The specific-general offset test found your proposal has a proportional impact above the specific offset threshold for the following rare or threatened species' habitats

Species number	Species common name	Species scientific name	Species type	Area of mapped habitat (ha)	Proportional impact (%)
503615	Coast Twin-leaf	Zygophyllum billardierei	Highly Localised - model & points	3.528	0.061 %
504210	Coast Wirilda	Acacia uncifolia	Highly Localised - model & points	3.523	0.060 %

Clearing site biodiversity equivalence score(s)

Where a habitat zone requires specific offset(s), the specific biodiversity equivalence score(s) for each species in that habitat zone is calculated by multiplying the habitat hectares of the habitat zone by the habitat importance score for each species impacted in the habitat zone.

Habitat zone	Habitat hectares	Habitat for rare or threatened species					Specific biodiversity equivalence score (SBES)
		Proportion of habitat zone with specific offset	Species number	Species common name	Species scientific name	Habitat importance score	
1-1-B7	0.003	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.003
1-1-B7	0.003	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.003
2-1-B8	0.002	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.002
2-1-B8	0.002	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.002

Habitat zone	Habitat hectares	Habitat for rare or threatened species					Specific biodiversity equivalence score (SBES)
		Proportion of habitat zone with specific offset	Species number	Species common name	Species scientific name	Habitat importance score	
3-1-B10	0.003	30.439 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.001
3-1-B10	0.003	30.439 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.001
4-1-B13	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
4-1-B13	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
5-1-B16	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
5-1-B16	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
8-1-B22	0.000	43.739 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
8-1-B22	0.000	43.739 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
10-1-C49	0.001	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.001
10-1-C49	0.001	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.001
11-1-C52	0.001	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.001
11-1-C52	0.001	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.001
12-1-D44	0.006	0.025 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
12-1-D44	0.006	0.025 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
13-1-E24	0.002	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.002
15-1-F29	0.002	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.002
15-1-F29	0.002	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.002
16-1-F32	0.015	38.087 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.006
16-1-F32	0.015	38.087 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.006
18-1-F34	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
18-1-F34	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000

Habitat zone	Habitat hectares	Habitat for rare or threatened species					Specific biodiversity equivalence score (SBES)
		Proportion of habitat zone with specific offset	Species number	Species common name	Species scientific name	Habitat importance score	
21-1-G101	0.003	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.003
21-1-G101	0.003	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.003
22-1-G103	0.001	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.001
22-1-G103	0.001	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.001
23-1-G106	0.009	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.009
23-1-G106	0.009	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.009
24-1-G111	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
24-1-G111	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
25-1-G114	0.001	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.001
25-1-G114	0.001	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.001
26-1-G115	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
26-1-G115	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
27-1-G302	0.008	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.008
27-1-G302	0.008	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.008
28-1-G56	0.001	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.001
28-1-G56	0.001	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.001
29-1-G60	0.001	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.001
29-1-G60	0.001	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.001
30-1-G62	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
30-1-G62	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
31-1-G64	0.002	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.002

Habitat zone	Habitat hectares	Habitat for rare or threatened species					Specific biodiversity equivalence score (SBES)
		Proportion of habitat zone with specific offset	Species number	Species common name	Species scientific name	Habitat importance score	
31-1-G64	0.002	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.002
32-1-G66	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
32-1-G66	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
33-1-G68	0.003	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.003
33-1-G68	0.003	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.003
34-1-G70	0.003	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.003
34-1-G70	0.003	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.003
35-1-G72	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
35-1-G72	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
36-1-G73	0.009	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.009
36-1-G73	0.009	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.009
37-1-G74	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
37-1-G74	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
38-1-G78	0.001	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.001
38-1-G78	0.001	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.001
39-1-G80	0.005	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.005
39-1-G80	0.005	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.005
40-1-G82	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
40-1-G82	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
41-1-G85	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
41-1-G85	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000

Habitat zone	Habitat hectares	Habitat for rare or threatened species					Specific biodiversity equivalence score (SBES)
		Proportion of habitat zone with specific offset	Species number	Species common name	Species scientific name	Habitat importance score	
42-1-G87	0.001	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.001
42-1-G87	0.001	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.001
43-1-G89	0.001	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.001
43-1-G89	0.001	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.001
44-1-G91	0.017	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.017
44-1-G91	0.017	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.017
45-1-G94	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
45-1-G94	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
46-1-G99	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
46-1-G99	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
47-1-I123	0.004	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.004
47-1-I123	0.004	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.004
48-1-H118	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
48-1-H118	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
50-1-I126	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
50-1-I126	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
55-1-I137	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
55-1-I137	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
56-1-I139	0.006	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.006
56-1-I139	0.006	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.006
59-1-I146	0.004	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.004

Habitat zone	Habitat hectares	Habitat for rare or threatened species					Specific biodiversity equivalence score (SBES)
		Proportion of habitat zone with specific offset	Species number	Species common name	Species scientific name	Habitat importance score	
59-1-I146	0.004	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.004
60-1-I148	0.001	19.983 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
60-1-I148	0.001	19.983 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
61-1-I149	0.005	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.005
61-1-I149	0.005	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.005
62-1-I151	0.000	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.000
62-1-I151	0.000	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.000
63-1-J158	0.001	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.001
63-1-J158	0.001	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.001
87-1-ST66	0.014	56.736 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.008
87-1-ST66	0.014	56.736 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.008
88-1-ST65	0.014	58.133 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.008
88-1-ST65	0.014	58.133 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.008
89-1-ST72	0.014	68.908 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.010
89-1-ST72	0.014	68.908 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.010
90-1-ST277	0.014	81.246 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.011
90-1-ST277	0.014	81.246 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.011
91-1-ST70	0.014	89.621 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.013
91-1-ST70	0.014	89.621 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.013
92-1-ST71	0.014	89.663 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.013
92-1-ST71	0.014	89.663 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.013

Habitat zone	Habitat hectares	Habitat for rare or threatened species					Specific biodiversity equivalence score (SBES)
		Proportion of habitat zone with specific offset	Species number	Species common name	Species scientific name	Habitat importance score	
93-1-ST67	0.014	95.783 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.013
93-1-ST67	0.014	95.783 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.013
94-1-ST69	0.014	98.359 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
94-1-ST69	0.014	98.359 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
95-1-ST68	0.014	98.913 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
95-1-ST68	0.014	98.913 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
96-1-ST64	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
96-1-ST64	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
97-1-ST63	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
97-1-ST63	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
98-1-ST61	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
98-1-ST61	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
99-1-ST62	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
99-1-ST62	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
100-1-ST60	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
100-1-ST60	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
101-1-ST290	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
101-1-ST290	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
102-1-ST289	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
102-1-ST289	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
103-1-ST278	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014

Habitat zone	Habitat hectares	Habitat for rare or threatened species					Specific biodiversity equivalence score (SBES)
		Proportion of habitat zone with specific offset	Species number	Species common name	Species scientific name	Habitat importance score	
103-1-ST278	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
104-1-ST19	0.014	97.166 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
104-1-ST19	0.014	97.166 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
105-1-ST21	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
105-1-ST21	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
106-1-ST22	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
106-1-ST22	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
107-1-ST20	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
107-1-ST20	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
108-1-ST24	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
108-1-ST24	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
109-1-ST23	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
109-1-ST23	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
110-1-ST25	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
110-1-ST25	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
111-1-ST274	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
111-1-ST274	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
112-1-ST34	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
112-1-ST34	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
113-1-ST26	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
113-1-ST26	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014

Habitat zone	Habitat hectares	Habitat for rare or threatened species					Specific biodiversity equivalence score (SBES)
		Proportion of habitat zone with specific offset	Species number	Species common name	Species scientific name	Habitat importance score	
114-1-ST28	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
114-1-ST28	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
115-1-ST18	0.014	76.902 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.011
115-1-ST18	0.014	76.902 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.011
116-1-ST33	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
116-1-ST33	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
117-1-ST31	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
117-1-ST31	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
118-1-ST32	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
118-1-ST32	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
119-1-ST27	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
119-1-ST27	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
120-1-ST276	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
120-1-ST276	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
121-1-ST30	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
121-1-ST30	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
122-1-ST57	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
122-1-ST57	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
123-1-ST58	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
123-1-ST58	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
124-1-ST29	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014

Habitat zone	Habitat hectares	Habitat for rare or threatened species					Specific biodiversity equivalence score (SBES)
		Proportion of habitat zone with specific offset	Species number	Species common name	Species scientific name	Habitat importance score	
124-1-ST29	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
125-1-ST59	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
125-1-ST59	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
126-1-ST56	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
126-1-ST56	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
127-1-ST55	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
127-1-ST55	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
128-1-ST275	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
128-1-ST275	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
129-1-ST35	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
129-1-ST35	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
130-1-ST36	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
130-1-ST36	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
131-1-ST37	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
131-1-ST37	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
132-1-ST273	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
132-1-ST273	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
133-1-ST46	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
133-1-ST46	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014
134-1-ST54	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
134-1-ST54	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014

Habitat zone	Habitat hectares	Habitat for rare or threatened species					Specific biodiversity equivalence score (SBES)
		Proportion of habitat zone with specific offset	Species number	Species common name	Species scientific name	Habitat importance score	
135-1-ST272	0.014	100.000 %	503615	Coast Twin-leaf	Zygophyllum billardierei	1.000	0.014
135-1-ST272	0.014	100.000 %	504210	Coast Wirilda	Acacia uncifolia	1.000	0.014

There are habitat zones in your proposal which are not habitat for the species above. A general offset is required for the(se) habitat zone(s).

The general biodiversity equivalence score for the habitat zone(s) is calculated by multiplying the habitat hectares by the strategic biodiversity score.

Habitat zone	Habitat hectares	Proportion of habitat zone with general offset	Strategic biodiversity score	General biodiversity equivalence score (GBES)
3-1-B10	0.003	69.561 %	0.702	0.002
6-1-B18	0.000	100.000 %	0.702	0.000
7-1-B20	0.001	100.000 %	0.702	0.000
8-1-B22	0.000	56.261 %	0.702	0.000
9-1-B400	0.006	100.000 %	0.702	0.004
12-1-D44	0.006	99.975 %	0.489	0.003
14-1-F27	0.016	100.000 %	0.475	0.008
16-1-F32	0.015	61.913 %	0.475	0.004
17-1-F325	0.013	100.000 %	0.475	0.006
19-1-F38	0.006	100.000 %	0.475	0.003
20-1-F41	0.000	100.000 %	0.475	0.000
49-1-I124	0.001	100.000 %	0.562	0.001
51-1-I129	0.000	100.000 %	0.693	0.000
52-1-I131	0.000	100.000 %	0.693	0.000
53-1-I133	0.000	100.000 %	0.709	0.000
54-1-I135	0.001	100.000 %	0.725	0.001
57-1-I142	0.001	100.000 %	0.644	0.001
58-1-I143	0.001	100.000 %	0.640	0.000
60-1-I148	0.001	80.017 %	0.640	0.001
64-1-ST202	0.014	100.000 %	0.572	0.008
65-1-ST154	0.014	100.000 %	0.461	0.006
66-1-ST155	0.014	100.000 %	0.458	0.006

Habitat zone	Habitat hectares	Proportion of habitat zone with general offset	Strategic biodiversity score	General biodiversity equivalence score (GBES)
67-1-ST106	0.014	100.000 %	0.274	0.004
68-1-ST105	0.014	100.000 %	0.291	0.004
69-1-ST104	0.014	100.000 %	0.251	0.004
70-1-ST103	0.014	100.000 %	0.247	0.003
71-1-ST101	0.014	100.000 %	0.188	0.003
72-1-ST99	0.014	100.000 %	0.217	0.003
73-1-ST100	0.014	100.000 %	0.211	0.003
74-1-ST102	0.014	100.000 %	0.176	0.002
75-1-ST96	0.014	100.000 %	0.269	0.004
76-1-ST98	0.014	100.000 %	0.252	0.004
77-1-ST97	0.014	100.000 %	0.251	0.004
78-1-ST95	0.014	100.000 %	0.239	0.003
79-1-ST94	0.014	100.000 %	0.226	0.003
80-1-ST93	0.014	100.000 %	0.100	0.001
81-1-ST92	0.014	100.000 %	0.100	0.001
82-1-ST293	0.014	100.000 %	0.100	0.001
83-1-ST295	0.014	100.000 %	0.203	0.003
84-1-ST287	0.014	100.000 %	0.100	0.001
85-1-ST294	0.014	100.000 %	0.141	0.002
86-1-ST288	0.014	100.000 %	0.100	0.001
87-1-ST66	0.014	43.264 %	0.100	0.001
88-1-ST65	0.014	41.867 %	0.100	0.001
89-1-ST72	0.014	31.092 %	0.100	0.000
90-1-ST277	0.014	18.754 %	0.100	0.000
91-1-ST70	0.014	10.379 %	0.100	0.000
92-1-ST71	0.014	10.337 %	0.100	0.000
93-1-ST67	0.014	4.217 %	0.100	0.000
94-1-ST69	0.014	1.641 %	0.100	0.000
95-1-ST68	0.014	1.087 %	0.100	0.000
104-1-ST19	0.014	2.834 %	0.100	0.000
115-1-ST18	0.014	23.098 %	0.100	0.000

Mapped rare or threatened species' habitats on site

This table sets out the list of rare or threatened species' habitats mapped at the site beyond those species for which the impact is above the specific offset threshold. These species habitats do not require a specific offset according to the specific-general offset test.

Species number	Species common name	Species scientific name
10045	Lewin's Rail	Lewinia pectoralis pectoralis
10050	Baillon's Crake	Porzana pusilla palustris
10118	Fairy Tern	Sternula nereis nereis
10149	Eastern Curlew	Numenius madagascariensis
10154	Wood Sandpiper	Tringa glareola
10170	Australian Painted Snipe	Rostratula benghalensis australis
10185	Little Egret	Egretta garzetta nigripes
10186	Intermediate Egret	Ardea intermedia
10187	Eastern Great Egret	Ardea modesta
10195	Australian Little Bittern	Ixobrychus minutus dubius
10197	Australasian Bittern	Botaurus poiciloptilus
10212	Australasian Shoveler	Anas rhynchotis
10214	Freckled Duck	Stictonetta naevosa
10215	Hardhead	Aythya australis
10216	Blue-billed Duck	Oxyura australis
10217	Musk Duck	Biziura lobata
10220	Grey Goshawk	Accipiter novaehollandiae novaehollandiae
10226	White-bellied Sea-Eagle	Haliaeetus leucogaster
10230	Square-tailed Kite	Lophoictinia isura
10238	Black Falcon	Falco subniger
10305	Orange-bellied Parrot	Neophema chrysogaster
10498	Chestnut-rumped Heathwren	Calamanthus pyrrhopygius
11280	Grey-headed Flying-fox	Pteropus poliocephalus
12683	Glossy Grass Skink	Pseudemoia rawlinsoni
13117	Brown Toadlet	Pseudophryne bibronii
13125	Southern Toadlet	Pseudophryne semimarmorata
13207	Growling Grass Frog	Litoria raniformis
4701	Dwarf Galaxias	Galaxiella pusilla
500326	Marsh Saltbush	Atriplex paludosa subsp. paludosa
500786	Leafy Twig-sedge	Cladium procerum
501888	Salt Lawrencia	Lawrencia spicata
503367	Metallic Sun-orchid	Thelymitra epipactoides
505337	Austral Crane's-bill	Geranium solanderi var. solanderi s.s.
528553	Black-tailed Godwit	Limosa limosa

Appendix 2 – Offset requirements detail

If a permit is granted to remove the marked native vegetation the permit condition will include the requirement to obtain a native vegetation offset.

To calculate the required offset amount required the biodiversity equivalence scores are aggregated to the proposal level and multiplied by the relevant risk multiplier.

Offsets also have required attributes:

- General offsets must be located in the same Catchment Management Authority (CMA) boundary or Local Municipal District (local council) as the clearing and must have a minimum strategic biodiversity score of 80 per cent of the clearing.[2]
- Specific offsets must be located in the same species habitat as that being removed, as determined by the habitat importance map for that species.

The offset requirements for your proposal are as follows:

Offset type	Clearing site biodiversity equivalence score	Risk multiplier	Offset requirements	
			Offset amount (biodiversity equivalence units)	Offset attributes
Specific	0.780 SBES	2	1.560 specific units	Offset must provide habitat for 503615, Coast Twin-leaf, Zygophyllum billardierei
Specific	0.778 SBES	2	1.556 specific units	Offset must provide habitat for 504210, Coast Wirilda, Acacia uncifolia
General	0.113 GBES	1.5	0.169 general units	Offset must be within Corangamite CMA or Greater Geelong City Council Offset must have a minimum strategic biodiversity score of 0.201

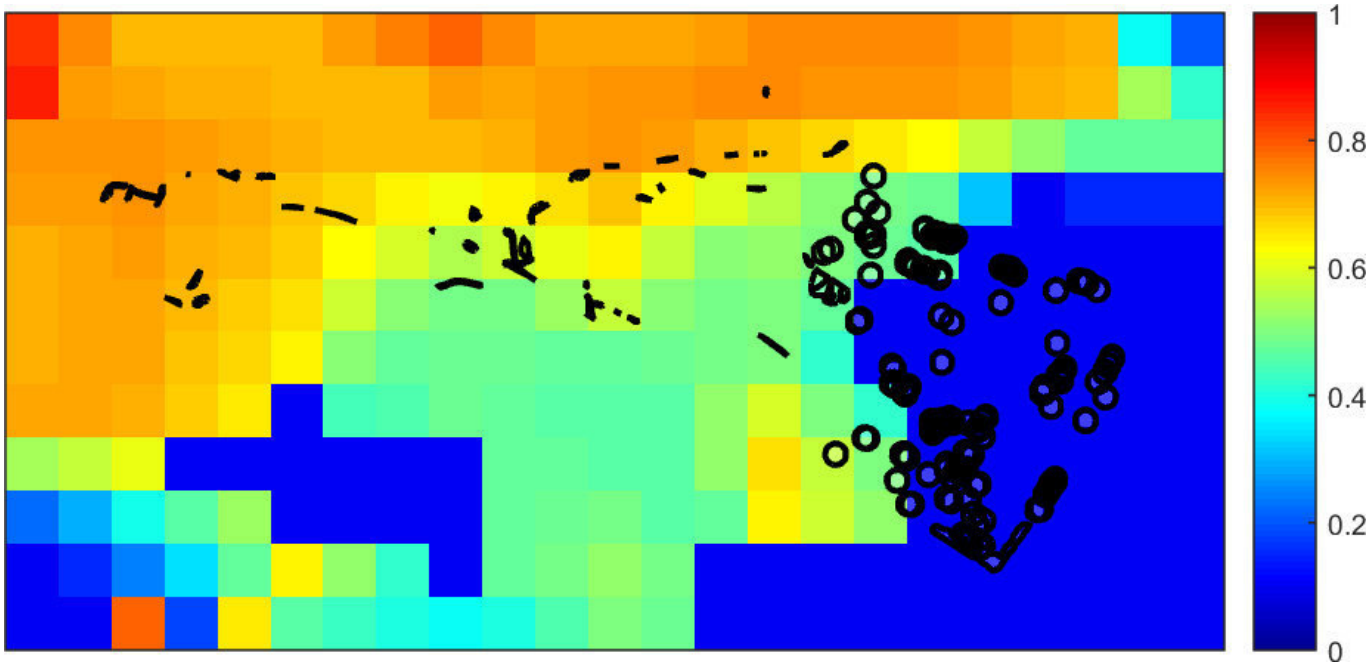
[2] Strategic biodiversity score is a weighted average across habitat zones where a general offset is required

Appendix 3 – Images of marked native vegetation

Note: The images below include proposed and past removal of native vegetation.

1. Native vegetation location risk map

2. Strategic biodiversity score map



3. Aerial photograph showing marked native vegetation

Yellow boundaries denote areas of proposed native vegetation removal

Red boundaries denote areas of past clearing

A

B

4. Habitat importance maps

Coast Twin-leaf
Zygophyllum billardierei
503615

Coast Wirilda
Acacia uncifolia
504210

Glossary

Condition score

This is the site-assessed condition score for the native vegetation. Each habitat zone in the clearing proposal is assigned a condition score according to the habitat hectare assessment method. This information has been provided by or on behalf of the applicant in the GIS file.

Dispersed habitat

A dispersed species habitat is a habitat for a rare or threatened species whose habitat is spread over a relatively broad geographic area greater than 2,000 hectares.

General biodiversity equivalence score

The general biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to Victoria's biodiversity. The general biodiversity equivalence score is calculated as follows:

$$\boldsymbol{General\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{strategic\ biodiversity\ score}$$

General offset amount

This is calculated by multiplying the general biodiversity equivalence score of the native vegetation to be removed by the risk factor for general offsets. This number is expressed in general biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ general\ biodiversity\ equivalence\ score} = \boldsymbol{general\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{1.5}$$

General offset attributes

General offset must be located in the same Catchment Management Authority boundary or Municipal District (local council) as the clearing site. They must also have a strategic biodiversity score that is at least 80 per cent of the score of the clearing site.

Habitat hectares

Habitat hectares is a site-based measure that combines extent and condition of native vegetation. The habitat hectares of native vegetation is equal to the current condition of the vegetation (condition score) multiplied by the extent of native vegetation. Habitat hectares can be calculated for a remnant patch or for scattered trees or a combination of these two vegetation types. This value is calculated for each habitat zone using the following formula:

$$\boldsymbol{Habitat\ hectares} = \boldsymbol{total\ extent}\ (\boldsymbol{hectares}) \times \boldsymbol{condition\ score}$$

Habitat importance score

The habitat importance score is a measure of the importance of the habitat located on a site for a particular rare or threatened species. The habitat importance score for a species is a weighted average value calculated from the habitat importance map for that species. The habitat importance score is calculated for each habitat zone where the habitat importace map indicates that species habitat occurs.

Habitat zone

Habitat zone is a discrete contiguous area of native vegetation that:

- is of a single Ecological Vegetation Class
- has the same measured condition.

Highly localised habitat

A highly localised habitat is habitat for a rare or threatened species that is spread across a very restricted area (less than 2,000 hectares). This can also be applied to a similarly limited sub-habitat that is disproportionately important for a wide-ranging rare or threatened species. Highly localised habitats have the highest habitat importance score (1) for all locations where they are present.

Minimum strategic biodiversity score

The minimum strategic biodiversity score is an attribute for a general offset.

The strategic biodiversity score of the offset site must be at least 80 per cent of the strategic biodiversity score of the native vegetation to be removed. This is to ensure offsets are located in areas with a strategic value that is comparable to, or better than, the native vegetation to be removed. Where a specific and general offset is required, the minimum strategic biodiversity score relates only to the habitat zones that require the general offset.

Offset risk factor

There is a risk that the gain from undertaking the offset will not adequately compensate for the loss from the removal of native vegetation. If this were to occur, despite obtaining an offset, the overall impact from removing native vegetation would result in a loss in the contribution that native vegetation makes to Victoria's biodiversity.

To address the risk of offsets failing, an offset risk factor is applied to the calculated loss to biodiversity value from removing native vegetation.

$$\boldsymbol{Risk\ factor\ for\ general\ offsets} = \mathbf{1.5}$$

$$\boldsymbol{Risk\ factor\ for\ specific\ offset} = \mathbf{2}$$

Offset type

The specific-general offset test determines the offset type required.

When the specific-general offset test determines that the native vegetation removal will have an impact on one or more rare or threatened species habitat above the set threshold of 0.005 per cent, a specific offset is required. This test is done at the permit application level.

A general offset is required when a proposal to remove native vegetation is not deemed, by application of the specific-general offset test, to have an impact on any habitat for any rare or threatened species above the set threshold of 0.005 per cent. All habitat zones that do not require a specific offset will require a general offset.

Proportional impact on species

This is the outcome of the specific-general offset test. The specific-general offset test is calculated across the entire proposal for each species on the native vegetation permitted clearing species list. If the proportional impact on a species is above the set threshold of 0.005 per cent then a specific offset is required for that species.

Specific offset amount

The specific offset amount is calculated by multiplying the specific biodiversity equivalence score of the native vegetation to be removed by the risk factor for specific offsets. This number is expressed in specific biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ specific\ biodiversity\ equivalence\ score} = \boldsymbol{specific\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{2}$$

Specific offset attributes

Specific offsets must be located in the modelled habitat for the species that has triggered the specific offset requirement.

Specific biodiversity equivalence score

The specific biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to the habitat of the relevant rare or threatened species. It is calculated for each habitat zone where one or more species habitats require a specific offset as a result of the specific-general offset test as follows:

$$\textbf{Specific biodiversity equivalence score} = \textbf{habitat hectares} \times \textbf{habitat importance score}$$

Strategic biodiversity score

This is the weighted average strategic biodiversity score of the marked native vegetation. The strategic biodiversity score has been calculated from the *Strategic biodiversity map* for each habitat zone.

The strategic biodiversity score of native vegetation is a measure of the native vegetation's importance for Victoria's biodiversity, relative to other locations across the landscape. The *Strategic biodiversity map* is a modelled layer that prioritises locations on the basis of rarity and level of depletion of the types of vegetation, species habitats, and condition and connectivity of native vegetation.

Total extent (hectares) for calculating habitat hectares

This is the total area of the marked native vegetation in hectares.

The total extent of native vegetation is an input to calculating the habitat hectares of a site and in calculating the general biodiversity equivalence score. Where the marked native vegetation includes scattered trees, each tree is converted to hectares using a standard area calculation of 0.071 hectares per tree. This information has been provided by or on behalf of the applicant in the GIS file.

Vicinity

The vicinity is an attribute for a general offset.

The offset site must be located within the same Catchment Management Authority boundary or Local Municipal District as the native vegetation to be removed.