

NORNALUP CHARACTER STUDY

SHIRE OF DENMARK



March 2011

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EXECUTIVE SUMMARY

This document seeks to consolidate existing Council reports and community recommendations into a concise reference document relating to the Nornalup settlement. The document is intended to provide guidance for existing and future landowners within the settlement as to the character, environmental and heritage design attributes expected within the settlement.

Given the increased exposure and popularity associated with the south-west, Nornalup is expected to face future development growth pressures relating to infrastructure provisions, road access and scarcity of suitably zoned land. This document provides direction for the future growth of the settlement.

The recommendations within this document have been derived from broad recommendations contained within the following reports:

- *Nornalup Character Study; and*
- *Cultural Heritage Assessment of Nornalup Townsite*

It is intended that this document will be adopted by the Shire and will provide the guidance for the preparation of a Local Planning Policy to prescribe design guidelines for Nornalup and be used as a basis for the initiation of an Amendment to Council's Scheme to guide settlement future development.

TIMELINE FOR THE PREPARATION OF THE NORNALUP CHARACTER STUDY

1. 15 May 2006 — Letter from Nornalup Residents & Ratepayers Association asking for assistance from Council to preserve the unique character of Nornalup and give guidance to any future development in the area.
2. 29 June 2007 — Council appointed Howard & Heaver Architects (H & H) to undertake the Nornalup Character Study.
3. 29 July 2007 — A meeting was held with Nornalup residents to gather opinions from community members on what they consider important and significant about the character of Nornalup.

4. 25 September 2007 — Council resolved to accept the proposed community questionnaire for distribution to landholders as part of the Nornalup Character Study.
5. July 2008— The questionnaire was sent out to residents of Nornalup. 35 completed questionnaires were received. The results were collated by H&H and used to develop details within the strategy.
6. January 2009 — The draft strategy was advertised for public comment.
7. 7 January 2009 — All Nornalup ratepayers were invited to a community meeting. 43 people attended the meeting including the Department of Indigenous Affairs and the Department of Environment and Conservation. Walpole Weekly published an article in their January 14, 2009 edition. Items of **importance identified were that Nornalup's character is defined not only by its built environment but also by its natural setting and Aboriginal Heritage and that the strategy should be revised to include these two aspects.**
8. February 2009 — Based on this, South Coast NRM provided funds under their **"Restoring Connections" program for the preparation of the "Cultural Heritage Assessment" of the Nornalup settlement and appointed David Guilfoyle of Applied Archaeology Australia to undertake the assessment.**
9. 11 September 2009 — The assessment was completed and received by Council. A summary of this report is contained as a Chapter 4 within this Nornalup Character Study.
10. March 2010 — **Council prepared Chapter 2 on the "Environmental Values".**
11. August 2010 — The various background reports were consolidated into this document which identifies the built, environmental and cultural heritage of Nornalup.



CHAPTER 1 - INTRODUCTION

The Nornalup Character Study (the study) has been developed as a result of the Shire of Denmark (the Shire) and the Nornalup community considering the Nornalup settlement has special characteristics that need to be protected.

Howard & Heaver Architects were appointed by the Shire to undertake the character study which identifies those attributes that create the special character of Nornalup and to develop guidelines that will help to preserve those characteristics. Community consultation was undertaken in 2009 to allow the Nornalup Community to provide **feedback on the draft guidelines and where appropriate the community's comments** have been used to inform the final document.

1.1 PROJECT AREA AND DEFINITIONS

The boundaries of the study area are shown in Figure 1.1. The area extends in an arc from the junction of South Coast Highway and Station Road to the northern end of Riverside Drive and along the eastern bank of the Frankland River joining with a continuation of the arc from Station Road below the South Coast Highway bridge.

1.2 LAND USE HISTORY AND CURRENT USES

The land has been sustainably managed for thousands of years as part of a complex social landscape, embedded within a hunting-fishing-gathering economic system. **From the 1800's the area was used as part of South Coast whaling and dealing operation, largely tethered to the offshore islands and coastal strip. Exploration and sporadic settlement occurred in the 1820's and 1830's, with permanent European settlement commencing in 1910.** It is clear that at the time of settlement, the study area was occupied by a number of Noongar groups that shared a common language, custom rituals and practices.

The first official European visitors to the area were the surveyor Alfred Hillman and his party in 1833. By the middle of the nineteenth century the area was being visited by pioneering families attempting to set up grazing or timber ventures. Unlike nearby Denmark, the forests around Nornalup remained largely intact at the end of the 19th century due to their isolation and the economic difficulties of utilising the forests at the time.



FIG 1.1: Proposed area covered by the Nornalup Character Study.

The first successful settlers in Nornalup were the Bellanger family who arrived from Albany in 1910. The family lived in tents for several years until the homestead was completed in 1914. The building stood south of the existing settlement surrounded by orchard looking west over the Frankland River.

In 1910 areas of land along both banks of the Frankland River were resumed to become reserves. These were to later become the Nornalup National Park protecting the native tingle and karri forests in the area. The Nornalup settlement grew through the 1920s and 1930s with the opening of the railway from Albany in 1929 and the Nornalup hospital in the early 1930s. Since then the settlement has become established as a desirable tourism destination and retained its agricultural base. Some parts of the southern Frankland Catchment are open as dairy farms, and logging activity has been widespread through the surrounding forests. However, most of the land south surrounding the estuaries and rivers near the settlement is forest reserves and National Parks.



CHAPTER 2 - BUILT ENVIRONMENT

2.1 CHARACTER OF NORNALUP

Nornalup has developed as a popular holiday, tourist and recreational settlement on the eastern bank of the Frankland River close to the Nornalup Inlet and is surrounded by national parks and nature reserves.



FIG 2.1: General views of Nornalup showing the Frankland River and the relationship many existing dwellings have with existing roads..

2.1.1 Statement of Significance for the Settlement of Nornalup

For the purposes of this study the following definition of the special character of Nornalup has been developed on the outcomes of the community questionnaires completed by residents in December 2007. This statement has been used to guide the recommendations contained within this character study.

Statement of Significance: The settlement of Nornalup is highly valued by the community for its aesthetic character and its peaceful relaxed atmosphere. The aesthetic character of the settlement is that of a simple rural hamlet nestled in the Frankland river valley surrounded by karri forests and farmland and is created by a combination of different factors:

- *The wide river and distinctive timber boat sheds.*
- *Simple single and two storey cottages set on large blocks amongst mature trees.*
- *The informality and variety of the setout of the buildings.*
- *Informal roads and pathways shared by pedestrians, bicycles and other vehicles.*
- *Open gardens separated from the street by shallow drainage channels.*
- *The absence of other elements, apart from a few simple fences.*

The place has been a tight knit rural community and holiday destination over a long period of time. It is considered special by community and visitors alike many of whom have developed a deep sense of attachment to the area.

The place is appreciated for the natural environment surrounding the settlement and has significance as an area of pristine forest containing red tingle trees only found in the Walpole area.



2.2 SPECIFIC CHARACTERISTICS OF NORNALUP

The most significant characteristics of Nornalup that any new development should complement are identified below:

2.2.1 Settlement Characteristics

Nornalup consists of several areas of differing characteristics that together form a distinctive settlement. These areas are:

- Riverside Drive with its distinctive edge along the Frankland River and cottages set on large wooded lots.
- A small node of higher density buildings along South Coast Highway with smaller setbacks and semi-formal street frontages.
- Modern subdivisions and development on MacPherson Drive set in open landscapes.
- An emerging community and open space area on the corner of South Coast Highway and Riverside Drive.
- Farmland and dense mature karri forest surrounding the settlement.



FIG 2.2: General views showing some of the valued aesthetic characteristics of Nornalup along the Frankland River.

2.2.2 Streetscape Characteristics

The streetscape characteristics listed below are particularly evident along the Frankland River and South Coast Highway and are considered to contribute significantly to the overall qualities of the settlement:

- Houses typically set square to the street.
- Low or no front fences.
- Few garages or carports in front of houses.
- Informal gardens containing a mixture of landscape areas and mature native vegetation.
- Informal roads with no kerbs and minimal road markings.
- Open drainage channels alongside the roads with discreet vehicle crossovers.
- Driveways constructed from materials that blend with the natural landscapes.
- Narrow street frontages associated with properties fronting Riverside Drive.
- Distinctive boat sheds along Frankland River with access paths from Riverside Drive.
- River glimpses through tall trees.
- Minimal street lighting allowing appreciation of night skies.



FIG 2.3: Typical streetscape characteristics within Nornalup.



2.2.3 Existing House Characteristics

The characteristics below are evident on the majority of older residential buildings in Nornalup, particularly associated along Riverside Drive and South Coast Highway:

- Single and two storey cottages.
- Houses elevated above ground level.
- Wide deep verandahs to the street elevations.
- Earlier houses clad in weatherboards, some later buildings have brick walls.
- Windows to front rooms and front doors face the street.
- Roof shape and form predominantly simple pitched roofs with hips and gable ends clad in corrugated metal sheeting.

Properties along MacPherson Drive displays slightly different characteristics, including:

- Large elevated modern houses set back from the street intended to take advantage of views south towards the river.
- More regular lot sizes with houses, given their modernity, displaying general compliance with “R-Code” development requirements.
- A number of lots remain vacant.

Along with the statement of significance the characteristics identified above provide a basis for the development guidelines identified seek to preserve the special characteristics of the Nornalup settlement.

2.3 FUTURE VISION

The community has expressed a desire for any future expansion of Nornalup to be directed towards creating a sustainable village with an eco-tourism and small scale specialist arts centre focus. This approach seeks to build on the strong sense of community evident within Nornalup.

The community have also suggested the settlement provide a small village shop to provide small scale retail to complement the services available in Walpole located approximately 10km to the west.



FIG 2.4: Views of existing houses within Nornalup showing some of the dominant design characteristics within the settlement.

Critically any future development in Nornalup will be constrained by the availability of land and infrastructure provision, particularly sewer and stormwater drainage.



2.4 RECOMMENDATIONS FOR SUBDIVISION AND INFILL DEVELOPMENT

Many large existing lots contain small houses and a large amount of mature native vegetation which contributes to the character of Nornalup. The community has expressed a strong desire for the existing character of Nornalup to be retained.

The existing zoning for the majority of Nornalup is R5 (two lots on the corner of South Coast Highway and Macpherson Drive are zoned R10), which provides for a minimum lot size of 2,000m². The current lot size contributes to the character of Nornalup and the recommendations relating to future development will help retain this character.

With respect to recommendations, the following is noted:

STREET FRONTAGES AND SETBACKS

The existing street frontages vary throughout Nornalup and in particular the older properties fronting Riverside Drive and South Coast Highway do not appear to have followed any particular standard. This informal street setback should in the future be guided by current R-Code requirements, however where this would result in a character inconsistent with surrounding properties, Council may request and allow setbacks to be determined by averaging that found on adjoining properties.

DESIGN CRITERIA

- *Front setbacks shall be determined in accordance with the R-Code provisions.*
- *Council may request a greater or reduced setback where existing building locations support such an approach.*

FENCING AND LANDSCAPING

Many properties provide minimal boundary fencing, in recognition of the informal development character associated with the settlement. This defining character should be retained. In addition to this, landscaping is limited with the majority of landscaped properties existing on Macpherson Drive. The lack of planned landscaping areas is offset by the presence of large numbers of naturally occurring plants and tree species.

DESIGN CRITERIA

- *Any front fences shall be visually permeable and consist of open picket, post and wire or post and rail up to a maximum of 900mm high.*
- *Side and rear fencing throughout Nornalup should not exceed a maximum of 1200mm high unless required by Council for privacy screening.*
- *Fibre cement, metal colorbond or zincalume sheet fences are not to be used for any fencing in Nornalup .*
- *Existing native vegetation and all large trees over 300mm diameter trunk to be retained in any new development where possible unless where required under Council's Annual Fire Regulation Notices.*

ROADS

The existing roads within Nornalup, including the South Coast Highway have an informal nature that contributes to the overall character of Nornalup. Works to existing roads and any new roads in Nornalup should respond to the existing pattern of roads in the settlement.

DESIGN CRITERIA

- *Roads should follow natural ground contours as much as possible with minimal kerbing, preferably none, and open drainage channels similar to those already in existence.*
- *All road signage within Nornalup shall comply with the Shire's Town Planning Scheme Policy No. 32 - Signs.*



SUBDIVISION AND INFILL DEVELOPMENT

Subdivision and infill development in Nornalup is subject to the Department of Health's 'Draft Country Sewerage Policy' which requires minimum lot sizes of between 1,000m² and 2,000m² pending certain criteria being met. The presence of loamy soils and a high water table make on-site effluent disposal through the use of traditional septic tanks difficult. Smaller size lots further limit successful on-site containment of stormwater due to topography, especially on the steep slopes along Riverside Drive and Macpherson Drive. Stormwater disposal and management will also be an issue given the low permeability of the ground. The residential density of R5 along Riverside Drive is therefore inappropriate as it allows for subdivision to smaller blocks that could not accommodate the necessary drainage requirements.

The existing subdivision pattern contributes to the character of Nornalup and new battleaxe lots should not be created along Riverside Drive or South Coast Highway. In order to protect the historic character, remnant vegetation and visual amenity along the Frankland River, the historic subdivision pattern should remain at the density of R2.5 (4000m²).

Minimum lot size along Macpherson Drive are to remain at R5 (2000m²) due to the predominant battleaxe subdivision already evident and the original development of Macpherson Drive. Furthermore, it is noted there is no subdivision potential under the current density coding for any properties south-east of Macpherson Drive.

STRATEGIC RECOMMENDATION

- A study should be undertaken of the drainage requirements for future development in Nornalup, which could take the form of a Local Water Management Strategy in accordance with Western Australian Planning Commission requirements.
- That Council initiates an amendment to its Scheme to rezone all residential blocks along Riverside Drive to R2.5 with a minimum lot size of 4000m².
- Until such time, any rear lot subdivision of existing lots fronting Riverside Drive should be accessed via Macpherson Drive.



FIG 2.5: Proposed area of future commercial development (yellow) within the centre of Nornalup. Rear access (red) shown to area of possible future 1,000m² residential lots (green).

COMMERCIAL DEVELOPMENT

The community expressed the need for some commercial opportunity to be available within Nornalup. The development of small shop and art and craft was amongst the commercial opportunities envisaged.

STRATEGIC RECOMMENDATION

- That Council initiates an amendment to their Scheme to increase the density of the area shown in yellow (Fig 2.5) R10 and rezone it to Commercial; subject to reticulated water and sewer provision.



2.5 RECOMMENDATIONS FOR NEW BUILDINGS

Any new buildings in Nornalup should be of high quality design which respond to the scale, design, materials and context of existing buildings. New development needs to be articulated so that unsympathetic contrasts of scale and materials are avoided.

BUILT FORM

The maximum building height will be two storey's, plus undercroft where slope makes this possible. Overall heights will be in accordance with Table 3—Maximum Building Heights of the R-Codes. Category B standards shall apply. The datum for measuring the building height will be natural ground level taken in the centre of the relevant wall length.

DESIGN CRITERIA

- *Roof forms shall be articulated to ensure that the scale is similar to existing roofs.*
- *Boundary parapet walls will not be permitted in any area of Nornalup.*
- *Raised buildings are expected to comply with privacy controls as stipulated in the R-Codes.*
- *Where required new building must achieve compliance with AS3959 - 'Building In Bushfire Prone Areas'.*
- *The majority of existing buildings in Nornalup face square on to the street and new development should be orientated in a consistent manner to the existing buildings.*

RETAINING WALLS

New residences shall respond sympathetically to the existing landscapes and topography. Cutting and filling of sites should be kept to an absolute minimum as required to provide access to the site.

DESIGN CRITERIA

- *All retaining walls should be kept below 600mm high.*
- *Stabilised banks are preferred.*

DRIVEWAYS

Few driveways are formally constructed in Nornalup, especially along Riverside Drive. This adds to the informal character of the settlement. On steeper slopes it is expected more formal construction techniques may be required to improve accessibility.

DESIGN CRITERIA

- *New driveways and crossovers should be constructed to follow natural ground contours and be constructed at natural ground level with minimal kerbing.*
- *Suitable materials for driveways and crossovers are those that blend into the natural environment, such as gravel, stabilised pea gravel, stabilised earth, gravel in bitumen tack coat.*
- *Concrete driveways should be constructed to finish flush with the existing ground level and in a complementary colour.*



FIG 2.7: Existing dwellings showing typical informal driveway construction..





FIG 2.8: Relationship between an existing outbuilding and dwelling, demonstrating consistency in terms of form and cladding use.

GARAGES, OUTBUILDINGS AND CARPORTS

Many existing properties, by way in which the settlement has developed provide standalone garages and storage sheds. Many of these are constructed out of the same materials as the house. This material use should be encouraged in the future, despite the availability of kitset sheds on the market. With the exception of Riverside Drive and the existing boatsheds, the majority of car parking is provided under existing houses where slope allows. Many houses provide no garaging.

DESIGN CRITERIA

- *The front face of any garage or carport should not be located within any front yard setback area.*
- *Garages and carports are not permitted to be constructed in side setbacks.*
- *Along Riverside Drive to reduce the perceived bulk of the building garages and carports should be constructed as independent structures where possible.*
- *Along Macpherson Drive garages and carports to be provided in accordance with R-Code requirements.*
- *No new boat sheds along the Frankland River shall be permitted, however, maintenance of existing boat sheds is encouraged.*

MATERIALS

Materials and colours for new buildings in Nornalup should complement the existing building characteristics which are historic along Riverside Drive and modern, contemporary along Macpherson Drive. It is expected some buildings in the future will require restoration or removal. Council recognises some older existing houses will not meet future demands and substantial change or replacement of these buildings may occur. Dominant materials are evident within Nornalup and these are encouraged into the future. Some properties situated along Macpherson Drive use bricks and other newer cladding, indicating additional cladding materials may be deemed appropriate along Macpherson Drive.

DESIGN CRITERIA

Given the historic character of Riverside Drive the following materials considered appropriate are:

- *Timber cladding.*
- *Painted weatherboards.*
- *Fibre cement cladding.*
- *Corrugated metal cladding and roofing carefully designed to minimise reflectivity.*



FIG 2.9: Typical built form of many dwellings fronting Riverside Drive and the other older parts of the settlement.



2.6 RECOMMENDATIONS FOR CONSERVATION / ADAPTATION OF EXISTING BUILDINGS

The existing building stock of Nornalup contributes significantly to the special character of Nornalup. The Shire of Denmark encourages conservation of existing buildings and the following provides guidelines for those who wish to conserve, upgrade or extend an existing building.

As a whole the heritage of Nornalup is valued by the community and the following buildings have been identified by the Shire of Denmark as having particular significance and are included on the Shire's Municipal Heritage Inventory (MHI):

- Clan William Tobacco Kiln, South Coast Highway.
- Disused railway infrastructure.

INCENTIVES TO CONSERVE EXISTING BUILDINGS

The Shire of Denmark should undertake a review of its Municipal Heritage Inventory for Nornalup and encourage inclusion of existing significant buildings on the MHI to allow access to the Heritage Loan Subsidy Scheme, which in turn will encourage retention and adaptation of existing buildings.

STRATEGIC RECOMMENDATION

It is recommended that Riverside Drive and corner of South Coast Highway is entered as a precinct on the Shire's MHI. The Shire of Denmark should register for the Heritage Loans subsidy scheme.

DEMOLITION OF EXISTING BUILDINGS

Retention, conservation and adaptation of existing buildings should be encouraged over demolition. Those buildings that are unable to be restored and are required to be removed should be replaced with a building consistent with the immediate character of the locality.

DESIGN CRITERIA

- *Refer to the Shire's Municipal Heritage Inventory.*

ADDITIONS AND ALTERATIONS TO EXISTING BUILDINGS ON RIVERSIDE DRIVE

Given the historical character and development patterns of Riverside Drive any alterations or additions should preserve the existing character of the buildings and streetscape and should not detract from the significance of the place. Additions should generally not attempt to replicate historical details but create a contemporary solution that is considerate of the existing building.

DESIGN CRITERIA

- *Materials selected for additions should be sympathetic to the existing buildings and should not detract from the character and form of the original building.*
- *Roofs of additions should be articulated to ensure that the scale of the new roof is comparable to the roof on the existing residence.*



- The Bungalow, South Coast Highway.

2.7 COMMUNITY AREA

The community has expressed a desire to maintain a community area in the centre of Nornalup. The current community area is situated on the corner of Riverside Drive and the South Coast Highway, this is supported by both the community and the Nornalup Residents and Ratepayers Association.

Public access to the river is currently provided in this area and is likely to increase which may require additional or upgraded facilities. The Nornalup Residents and

COMMUNITY AREA

Any development on the community area will be subject to the policies relating to new buildings contained within this report.

STRATEGIC RECOMMENDATIONS

A landscape plan should be prepared for the site to minimise the impact of any future development on the aesthetic qualities of the river front and wider Nornalup area.



FIG 2.10: Family enjoying the beauty of the river at Nornalup. This location represents a traditional camping ground, evidenced by oral histories and stone artifacts found during earth disturbances associated with the new car parking area modifications. (Photo: David Guilfoyle)

Ratepayers Association is currently developing concept plans for a boardwalk along the river, interpretation signage and revegetation of the foreshore.

2.8 SUSTAINABILITY GUIDELINES

The Shire of Denmark encourages ecologically sustainable development to minimise energy use within buildings and maximise water conservation.

2.8.1 Energy efficiency

New buildings and additions and alterations to existing buildings in Nornalup should **seek to maximise their energy efficiency in accordance with Council's Planning Policy No. 33—Energy Efficient Subdivision Design & Residential Building Design** and by:

- Siting and orientating buildings to maximize solar access and passive solar heating, including internal layouts, window sizing and placement.
- Using thermal mass within the building to absorb heat.
- Using thermal insulation on roof, walls and flooring.
- Using good cross ventilation and draught proofing techniques.
- Using energy efficient appliances.
- Using alternative renewable energy generation techniques.

Some of these measure are compulsory as required by the Building Code of Australia where possible residents are encouraged to exceed the minimum standard.

2.8.2 Water Usage

New buildings and additions and alterations to existing buildings in Nornalup should seek to reduce their water usage by:

- Using water efficient AAA rated showers, toilets, taps and appliances.
- Locating hot water systems to minimise pipe runs.
- Minimising outdoor water use through careful landscape design.
- Retaining and reusing rainwater and stormwater on site.
- Recycling greywater for use on landscaping.

Note: The use of Rainwater tanks on new developments is compulsory where no scheme water is provided. Rainwater tanks must be installed in accordance with the **Shire's Town Planning Scheme Policy No. 40 - Rainwater Tanks & Greywater Re-Use Systems**.



CHAPTER 3 - ENVIRONMENTAL VALUES

The environmental values of Nornalup are the set of the naturally present environmental features, conditions and climate within which the settlement of Nornalup exists. It also includes the integrity of the ecological functioning of this natural environment. Most of these values are not stand alone values, and are open to different interpretation by different social groups.

3.1 CLIMATE AND WEATHER PATTERNS

The climate of the region is Mediterranean, characterised by mild winters, a pronounced winter rainfall maximum, and minimum rainfall during the summer and early autumn period. Regional weather is influenced by the surrounding oceans, mid-latitude cold fronts, southerly changes and the sub-tropical ridge, which create a variable climatic pattern of alternating eastwardly-moving high and low pressure systems.

Projections for climate change suggest that by 2030, annual average temperatures will be 0.4 to 2.0°C higher over most of Australia, with slightly less warming in some coastal areas. Projections for rainfall vary much more, but in general a reduction in autumn, winter and spring rainfalls for much of southern Australia and in particular the south-west are projected.

The high rainfall and mild Mediterranean climate of the Nornalup region has considerable ecosystem values for the maintenance of the river flows and the surrounding vegetation, in particular the tall eucalyptus forests of the area. It provides ecosystem service benefits to humans of reliable fresh water, productive and varied agricultural farming systems, outdoor lifestyles and the ability to enjoy nature-based recreational pursuits.



FIG 3.1: Existing Nornalup settlement relationship with South Coast Highway, approaching from the east.

3.2 SOILS AND TERRAIN

The hills and undulating terrain is comprised of brown gravelly duplex soil over a subsoil of yellow-brown and red-brown clay. Highly variable alluvial soils are found in narrow bands along the main rivers. The shallower valleys of the smaller streams that traverse the swampy areas are dominated by loamy and silty sands. These areas are sensitive to vegetation disturbance and erosion.

Shallow brown gritty loamy soils are associated with the granite outcrops. These outcrops are comprised of intensely formed gneiss, which are highly sensitive to human disturbance. On these outcrops, highly fragile plant communities grow in small pockets of soil or in moss sheets on exposed rocks.

The diversity of soil types and the hilly terrain of the area provides numerous micro-climates and protected habitat areas for a diversity of plant communities. The gravel soils support the dominant natural vegetation systems of tall karri, marri and jarrah forest, whilst the sandy riverine soils support the paperbark and sedge dominated fringing vegetation along the river and creeklines. The diversity of the vegetation from river edge to the tall forest canopy contributes strongly to the natural character and high scenic quality of Nornalup and the surrounding landscape.



3.3 VEGETATION TYPES AND ASSOCIATED FAUNA

The combination of riverine, riparian and woodland/forest vegetation types, inclusive of areas of granite outcrops and natural wetlands, in and surrounding the Nornalup settlement, provides diverse natural habitats with high species richness. These aquatic and terrestrial environments support a good population of native animals species (invertebrates, fish, terrestrial animals and birds). Being located in the high rainfall south-west, the Nornalup area contains a number of flora and fauna species that have high environmental and conservation value as numerous species are endemic, rare or priority species.

Information on the fauna within the Frankland and Nornalup area is still very limited, particularly information on the distribution, ecology and conservation status of reptiles, amphibians and invertebrates. Studies indicate that compared to other areas of south-west Australia which have shown a decline in abundance of native animals, the Frankland and Nornalup area has relatively intact fauna populations, probably due to the size, condition, relative isolation and continuity of adjoining conservation lands. The region also retains a wide range of habitats and natural bush corridors for dispersal, along with diverse landforms and high rainfall.

The integrity of the native animal populations in combination with the good condition of the natural environment, gives the wider area and the Nornalup settlement very high conservation values for native vegetation and the associated fauna.

3.4 RIVER, FORESHORE AND FOREST

The proximity of the Nornalup settlement to the Frankland River, which is bordered by a naturally vegetated river foreshore and the tall karri, marri and jarrah forest, provides a unique natural setting for Nornalup. The environmental conditions of suitable soils, high rainfall, a floodplain location, perennial river flow, and tall eucalyptus forest views, all combine to provide a setting of very high aesthetic natural beauty.

The river, foreshore and forest all have very high intrinsic environmental values, and the continuity between these landscape elements and habitats is extremely important to sustain the quality of the natural character of the Nornalup settlement. The river foreshore vegetation provides a variety of ecosystem services of filtration of excess

nutrients entering the river, habitat for riparian fauna and birds, and river bank protection from wave erosion and flood damage.

The location of the Nornalup settlement so close to the Frankland River places increased human pressure on the natural integrity of the foreshore and riparian environments. The native foreshore vegetation should be protected and retained intact where possible, and every effort should be made to reduce nutrient enrichment of the river from septic tanks, boat engines or other associated human activity.

3.5 OVERALL NATURAL ECOLOGICAL FUNCTIONING AND INTEGRITY

The integrity of ecological functioning in and around Nornalup remains in general relatively high, but is still very vulnerable to human disturbance - especially from illegal clearing, river-edge degradation and habitat fragmentation resulting from development for housing, and degradation of foreshore areas. Severe human impacts include the introduction of alien plant and animal species, the alteration of landscape connectivity for development, inappropriate farming practices, import of nutrients (fertilizers and septic tanks), and tracks and roads through the forest. The clearing and use of the natural spaces for recreational activities and hunting (boating, fishing, sport shooting, trail bike riding etc), also has severe impacts.

Currently offsetting this the human population remains relatively small and the natural spaces have good linkages from river to woodland, with much of the surrounding bushland under conservation management. No large industry or pollution source (other than farming) is present. The environmental changes that the south-west forest region faces with predictions of climate change and reduced rainfall are not easily quantified, but are increasingly supported by scientific evidence. Retaining vegetation, in particular foreshore vegetation, and conserving habitat diversity wherever possible will be of benefit to those species vulnerable to natural changes.

Nornalup has high environmental values throughout the settlement and surrounds, and still has to opportunity to conserve the natural spaces, river foreshore and linkages throughout the settlement so as to retain its high environmental values for future generations.



CHAPTER 4 - CULTURAL HERITAGE

South Coast Natural Resource Management, with assistance from the Department of Indigenous Affairs and Department of Environment and Conservation, appointed David Guilfoyle to prepare the *Cultural Heritage Assessment of Nornalup Townsite*. The objectives of the study were to:

- Conduct a desktop assessment of Noongar cultural heritage sites and values in the study area.
- Conduct archaeological and ethnographic field surveys with Noongar custodians from the area to identify significant sites and heritage values for site protection and restoration.
- Identify themes and interpretation strategies to promote Noongar heritage in the area.
- Provide heritage management recommendations for Noongar engagement in the Nornalup Character Study and local government and DEC planning strategies.

4.1 METHODOLOGY

The Heritage Assessment identified the study area as the Nornalup settlement. As is required in any cultural heritage assessment, a regional approach was undertaken to include the Frankland River foreshore, the Inlets, and the Walpole Wilderness. To understand the heritage context of Nornalup, a landscape approach was required. Importantly, the study area connects through context and meaning with Noongar Country, the wider regions of the south coast and the Great Southern.

The Heritage Assessment includes the results of desktop research, archaeological and ethnographic field surveys of the area with local Noongar custodians, and information on traditional wild resource use and ecological values associated with the River, Inlet and general vicinity. A key element will be research on local place names and the provision of cultural information that can be utilised in the promotion of heritage (e.g. for the design and production of interpretive signage and tourism information).

Further to this, the document establishes and sets out objectives for the identification, protection, conservation, presentation and transmission of the

heritage values of this central place under the heritage provisions of the Aboriginal Heritage Act (1972) and also using industry standards and methodological approaches endorsed by the Burra Charter and other management guides.

The Heritage Assessment provides a detailed description of the anthropological and archaeological background within the study area. This chapter of the Nornalup but Character Study however, does not detail the finding thereof but presents a summarised version of this study with the aim to provide heritage values as it relates to the Nornalup settlement and management recommendations stemming from the investigations.

4.2 HERITAGE VALUES

4.2.1 Cultural Significance

The fact that the settlement has adopted the name of Nornalup indicates a level of interaction and exchange with the traditional owners at the time of earliest European exploration and exchange. The Frankland River is an important site with significant cultural and ecological values that require appropriate management and protection. The river is culturally and spiritually significant and was used traditionally as a camping area near the Walpole-Nornalup Inlet. The Frankland River foreshore is also an integral part of the newly-established Walpole-Nornalup Marine Park. The associated cultural heritage is equally significant as the regions well-documented natural heritage values.

The Frankland River that passes through the settlement connects the estuary with the inland hills and forests. The river is a cultural place and is afforded high heritage value because of its important cultural significance. Its cultural significance is quoted below:

“Kwakoorillup river/beela was one of the main travel routes of the Noongar people. As with all river's and waterways, Kwakoorillup was made by Warkel the water snake. At certain times of the year, some of the more inland tribal people from the surrounding Goreng, Koeran and Wilmen groups would follow the river to the Pibulmun – Wadandi Lands by the sea.

The journey along Kwakoorillup's banks was extremely important as it provided the people with all their food and water. It also enabled the people to collect special foods and medicine's along the way that could be used for themselves as well as for goods



for trade to other people whose land did not yield the different plants that had been collected. It gave the people a chance to continue their roles as caretaker's of Noongar Boodjera (Aboriginal Land's), and to undertake any ceremonies of Lore, along their route, such as burning, hunting and the collection of different items for trade at the coastal gatherings.

When Warkel created the route for the river's spirit he made sure it passed through the open land of the wheat belt where the special wood for spears and other implements could be collected. The beautiful Jarrah and Karri provided different plants and animals, the granite peaks for lookouts and the quartz outcrops for toolmaking and the spiritual importance of the Tingle Tree's which still have special ceremonial uses and beliefs of the Pibulmun people.

Where the river opens into the vast still waters of the inlets we believe that these places are where Warkel lays his eggs which are protected by his whisker's, the native reeds and rushes on the banks of the inlet keep these eggs (river stones) safe until they are ready to produce new life lines in the form of new creeks and tributary's when they are needed. The water's spirit then moves on out into the ocean where Wardan the sea-spirit welcomes the new life and spreads it out to where it's needed and then when it has run its course it carries the spirit of the river's inhabitants from birds and animals and humans across the ocean to meet Walgin, the rainbow spirit who welcomes everyone and everything to Koorannup the final resting place for all.

Kwakoorillup runs through many different tribal boundaries and still holds special significance of Lore and Custom attached to it. The oral history of the river is still passed onto the next generations of Noongar people and because of this has managed to keep it's traditional name after all these years. This shows the continued significance of the river to our people..." (Statement provided by the custodians for integration into this report)

4.2.2 Traditional Movement

The Frankland River is a well-known traditional movement corridor linking the coast with the hinterland and vice versa. Hundreds of traditional place names are recorded for the area, demonstrating the complex patterns of movement and occupation within this area. For example, the place "bangalup" is named on the Frankland River, and means "trade/exchange", and this place, like many others, is not part of the historical and contemporary landscape, with a bridge being built at

this same location. This demonstrates the adoption of traditional pathways across the landscape by Europeans, and also documents aspects of both the social and economic landscape.

4.2.3 Traditional Place Names

Research was undertaken to develop a list of traditional place names for the area. A preliminary list (Bishop 2007) demonstrates the complex associations, although further research is required to identify the meaning and location of some of these places. Such research would provide more in-depth understanding of the regional heritage landscape.

4.2.4 Ceremony

There are known ceremonial grounds within the area including sensitive spiritual places with deep meaning and significance. Gathering's and social events were a common, with groups maintaining connections through ritual and trade.

There are accounts of traditional ceremonies and events occurring throughout the area as late as the 1920's. An account by 87-year-old Max Jones recalls viewing a corroboree first hand as a child in 1926, while on a six-week holiday over Christmas, travelling to the coast from Kojonup, following an old pioneering cattle track which bypassed Denmark to the west. The story is contained in the full version of the Heritage Assessment.

4.2.5 Wild Resource Use

Procuring and preparing cultural plants, wild animals, bush tucker, medicines, ochre, and other materials is a key component of traditional practice. The community is active in this regard and maintains detailed knowledge of seasonality and uses of wild resources. The Nornalup area provides an opportunity to provide access for this continued cultural activity, and has the potential to serve as a "store-house" for re-establishing certain cultural plants for ongoing procurement and use.

4.2.6 Shared History

Places and landscape features associated with the period of European exploration and settlement in this region are of heritage significance to the Traditional Owners, as it represents a number of important heritage themes. Non-Indigenous Australians often look at the actions of their pioneer families and their struggle and achievements in "settling" the southwest forests with a sense of pride, and draw upon the history to form a sense of self identify and community in a contemporary context. Likewise, the



Traditional Owners of the area maintain a strong heritage attachment to the same place and events, largely associated with the fact that their ancestors often welcomed and guided the earliest settlers to productive places for their settlements.

Alison and John Muir (1979) described the Noongar guides as providing “invaluable help” to the wadjellas who were looking for new country to immigrate to. When the Muirs, a wadjella pioneering family, were living at Forest Hill, Noongars told them about a “big water” to the west which was fresh and had prolific wildlife (West Australian Newspaper 1951). Thomas Muir decided to travel there. He was guided the fifty miles there by Noongars. The Noongar name for the place was Mulgarrup or Taggerup, but when Thomas Muir got there he named it Lake Muir. Noongars guided the Muirs and other wadjellas to other fertile country around Lake Muir and beyond, including Williams Bay, Nornalup, Broke Inlet, Fish Creek, Deeside (Loopitnup), Woodgreen, Mordalup, Seaton Ross and other country towards Perup and Fern Hill (at Fullerup) (Deacon 1950:8; Muir 1979:5; Muir 2005:32).

History has not adequately documented the achievements and contribution of the Traditional Owners in the settlement and growth of the colony of Western Australia, including the settlements of Nornalup and Walpole. Oral histories provide a layer of detail to current histories, and we see that historical themes and places are of significance to both indigenous and non-indigenous peoples. Patterns of settlement also shed light on processes of social change that affected the Traditional Owners way of life, and these may be demarcated in the landscape as components of an important historical and heritage theme.

The inlets were further explored in 1833 by Hillman and in 1841 by Nairne Clark. **“Subsequent to Clark’s explorations at Walpole and Nornalup, a clerk mixed up the Frankland and Deep Rivers, and the river now known as the Frankland is what sealers referred to as the Deep”** (Hands 2000: 40). The inlets were used by sealers for many years prior to mainland settlement, who gave informal names to the waterways, and made camps at several places, taking advantage of the sheltered coves, one of which is named, **“Sealer’s Cove”** (Ferne and Ferne 1989).

All the European explorers and settlers, like all visitors today, were taken aback by the sheer beauty of this landscape, the beloved home of the Bibbulmun People.

There is no doubt that the sealers and early explorers interacted with the Bibbulmun people occupying this area, with many accounts and events remaining undocumented. As in many other regions, some of the negative consequences of **these early interactions was likely to be the transmission of ‘Old World’ diseases that the local people had no immunity to.** The potential for conflict between the Traditional Owners and whalers and sealers was common along the South Coast during the 1800s.

Relationships with the earliest settlers were often hostile though some working relationships eventually developed - **albeit exploitative relationships by today’s standards.**

“Conflict over land had begun in the 1830s, continued into the 1850s and intensified throughout the 1860s as settlement increasingly impinged on water resources, hunting grounds and camping grounds. The destruction of the culture and ecology became a major cause of population decline with diseases such as whooping cough, influenza and measles causing epidemics, which combined with the increasing pauperization of the remnant populations to a devastating extent (McDonald, Hales and Associates 1995:51; Goode et al 1998:20).”

Many people were progressively moved into Reserves and Missions via successive government policies aimed at controlling the lives of Indigenous people; however, the community maintains strong cultural connections to the area and surrounds.

A failed attempt to settle the region in 1849 by the Landors Place at Newdegate Island, who planted a vegetable garden there, involved an incident whereby a Bibbulmun man was shot by one of the brothers. This island (like many other places in this area) contains a number of archaeological features demonstrating the long-term occupation of the area for thousands of years. With the departure of the Landors, the area was left to the Bibbulmun People for over 50 years that no doubt maintained some level of distrust towards settlers following this incident. European settlement was not established until as late as 1910, when the Bellangers and Thompsons moved into the region, settling at the townsite of Nornalup itself (Ferne and Ferne 1989). The Bellangers first landed at The Depot, where they built a storage depot for their goods dropped off by ship that would then be transported across the inlet to their home on the Frankland River.



Settlement increased in 1919 with the Swarbricks settling at what was to become Rest Point (constructing their homestead seven years later). In the 1920s, the Group Settlement scheme resulted in an increase in population to the area and the railway was extended from Denmark to Nornalup (1929) (Hands 2000:43; Jessup 1970:17). The Special Settlement Scheme of the 1930s brought further settlers to the Walpole-Nornalup area (Tapley 1987).

As can be seen, many of the historical places and camps of heritage significance are also of cultural significance to the Traditional Owners, given that these places and associated events were part of the cultural landscape and represent places where historical events happened to their ancestors. Most of the first settlements were located on important traditional camps and spiritual places.

During this time, the Traditional Owners faced enormous pressure and disruption to their traditional way of life. Aside from disease and negative encounters, people were progressively relocated by successive government policies aimed at controlling the lives of Indigenous people. These historical processes have created a situation whereby present-day locals know very little of the rich traditional culture or people from this area. This may contribute to the lack of Indigenous heritage themes and conservation strategies in the local area, and the regular and repeated disturbance to places of cultural significance. Thus, the aim of this study and ongoing projects is to demonstrate the strong cultural connections to the area held by the Traditional Owners and the rich archaeological and ethnographic heritage that is a true wonder of the region. Awareness and understanding of the region must include aspects of the long-term history and features associated with the Bibbulmun people and their ancestors that lived, settled, played, hunted, named, and owned this area.



FIG 4.1: Sample of stone artefacts. Stone artefact data provides information pertaining to past settlement, resource procurement and subsistence. (Photos: David Guilfoyle)



4.3 WALPOLE WILDERNESS AREA

Recent research in the Walpole Wilderness Area has documented a number of cultural features that provide for a fuller understanding of patterns of movement and use of the surrounding areas.

This research was funded via an Australian Research Council (ACR) Linkage Grant to the University of Western Australia and resulted in a document titled *“6,000 years of Land Management in the Walpole Wilderness (Dr. Joe Dortch).*

A map showing the preliminary outcomes of this survey programme, bearing in mind constraints from very low ground surface visibility demonstrate an emerging pattern of the rich, complex archaeological heritage of this region.



FIG 4.2: Typical lizard trap structure in the Walpole Wilderness Area. (Photo: J. Dortch.)

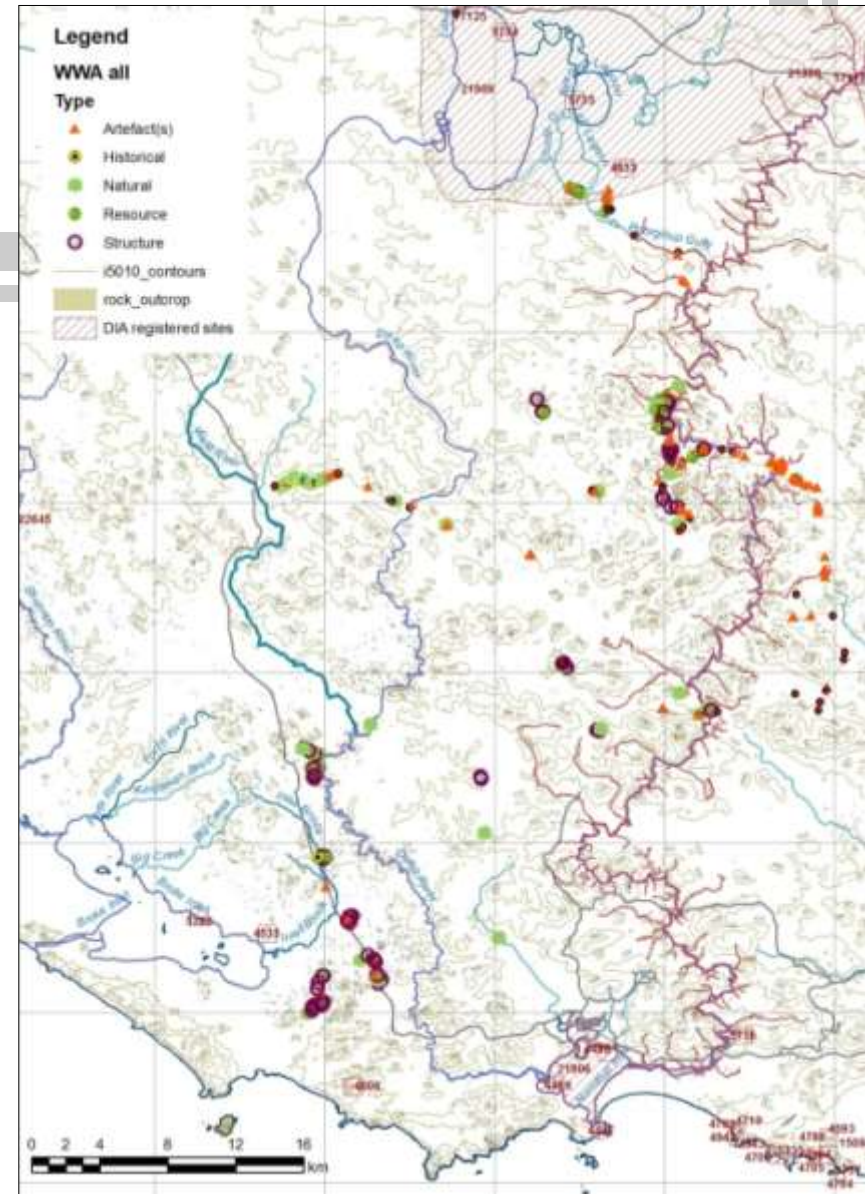


FIG 4.3: Preliminary outcomes of the cultural features survey relating to the Walpole Wilderness Area.



4.3.1 Planning and Management

Careful planning and management of archaeological heritage is required in the southwest given that most archaeological resources are yet to be discovered and/or remain sub-surface, due to a number of factors (Dortch 1997) including:

- Lack of intensive and extensive regional investigations.
- Changes in sea level over the past 12,000 years (submerging vast tracts of the continental shelf and areas of past occupation and use).
- Geologically recent age of much of the coastal dune system with sand dunes deeply burying cultural features.
- Destruction of material through natural processes.
- Density of the vegetation and very low surface visibility characterises much of the southwest.
- Extensive land clearing and developments (towns, ports, roads) centred on many core, traditional territories.

A problem for any archaeologist working in forested environments is how to account for much of the undocumented archaeological record in large areas of dense ground cover. The low ground surface visibility (dense vegetation) combined with coastal dune deposition limits the effectiveness of surface survey. As is most common in Australian archaeology in densely vegetated environments, surface investigations are often limited to exposures of bare soil along waterways, road cuts, erosion scars or tracks (O'Halloran and Spennemann 2002:8).

As stated above, at this level of landscape management, much of the actions required to protect the natural environment mirror those for the cultural resources. The critical element is to ensure effective engagement of Custodians.

4.4 SUMMARY OF WIDER MANAGEMENT RECOMMENDATIONS

The over-riding management recommendations for this area is to maintain, as much as possible, its natural state and provision the area in slight to moderate ways, while encouraging further research into the unique natural and cultural history. Traditional Owners agree that certain areas should be left in pristine, wilderness state, and promotion or development of the area is likely to ultimately degrade the associated cultural resources (Wayne Webb personal comment).

The Custodians have indicated that the primary avenue for maintaining the cultural integrity of the area is to ensure the quality of the water and surrounding native vegetation. They indicated that the main threats were related to water quality (run-off, algae), the invasive weeds, stock, and feral animals. It was recommended that the waterway be provided with a wide vegetation buffer, fenced off from stock, undergo a process of weed and feral animal control, and regularly maintained/monitored.

“Caring for Country” is a central element of traditional custodianship, identity and cultural practice. Looking after the “bush” is as important today as it ever has been for the Traditional Owners. An agenda that focuses on maintaining the cultural resources associated with this area has great potential to provide an effective process for ongoing ecological/biodiversity management, with a number of flow-on effects in the realm of public education and community engagement in the process.

Resources must be secured to ensure research, education and training continues so that knowledge, management and technical skills are available to allow improved management and to meet the objectives of the various management plans for the area. Further regional assessments should be undertaken to contribute to the understanding of the structure and changing patterns of cultural places throughout the river and estuarine systems. This work is required to provide an accurate environmental impact assessment process at the regional level and to help establish whether particular cultural features are at risk, as well as the extent and severity of the risks. This work should take place during further land care operations in the area.



“The conservation and study of cultural landscapes within wilderness and reserves provides both a yardstick with which to measure environmental change when compared to less modified natural systems and the highly modified landscapes in other regions. This contributes to our knowledge of ecological and environmental processes, and increases our understanding of human interactions with natural systems...this will help us devise more harmonious and sustainable landscape management regimes for the future (Lennon and Mathews 1996). “

Careful and regular monitoring of the archaeological resources associated is warranted. Erosion, instability, changing water levels, destructive wave action, inappropriate recreational use, or direct vandalism are constant threats and can be easily mitigated via a monitoring programme and localized stabilisation works such as revegetation. Engagement of the Traditional Owners and wider Noongar community in these monitoring and on-ground restoration works is best-practice.

As mentioned above, given the variety of heritage assessment and research projects being undertaken in the area, and the potential threat to heritage places, it is strongly recommended that the Shire of Denmark, DEC, and relevant agencies implement mechanisms that directly integrate existing planning processes with heritage programmes. Any future disturbance to heritage places should be fully investigated and measures taken to act on the relevant land management authority if it is deemed appropriate protective measures have not been put in place and/or appropriate processes (under the provisions of the Aboriginal Heritage Act (1972) have not been followed.

The implementation of these recommendations provides a cost-effective, progressive strategy for ensuring heritage management compliance, with associated educational and social outcomes. At the same time, it raises the level of the region’s cultural heritage to a level that matches the region’s well-documented and valued natural heritage landscape. The celebration of both these values in equal ways will provide for a richer experience for locals and visitors alike. By placing cultural heritage at the top of the land-management agenda, associated environmental values, and management and control methods, are embedded within the process. The natural and cultural values of the area are being restored, and the community remains in control of the cultural connections and knowledge associated with the area.



FIG 4.4: Dense vegetation on either side of the Frankland River conceals a number of sites. (Photo: J. Dortch.)



CHAPTER 5 - CONCLUSION

The character of Nornalup is identified by its natural setting and a culmination of Aboriginal engagement with the land and European settlement and growth. Today Nornalup is defined by settlement which display historic built character along South Coast Highway and Riverside Drive and a more contemporary and modern along Macpherson Drive.

The historic value of the European built environment should be recognised and protected and future development should enhance the character of Nornalup. Similarly, the river, foreshore and forest all have very high intrinsic environmental values and the continuation between these landscape elements and habitats is extremely important to sustain the quality of the natural character of the Nornalup settlement and embed the preservation of Aboriginal cultural integrity of the area.

