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LAND IMPACTS

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# Dunsborough Structure Plan

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# 1. INTRODUCTION

The need for a structure plan in Dunsborough has been prompted by the rapid recent growth of the town and its identification in the Leeuwin-Naturaliste Region Plan as a major service centre for tourism. There is also a need to ensure that the inevitable development that is focusing on the town does not ruin its character and environmental qualities and that the necessary community infrastructure is sufficient to meet projected demand.

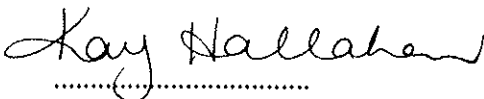
The State Planning Commission, the South West Development Authority and the Shire of Busselton came together to agree to both support and finance the Plan's preparation. The Plan commenced in August 1988 with the appointment of Hames Sharley Australia as planning consultants. A public meeting was held in October 1988 and public submissions called for. The consultants prepared a draft report based upon the information gathered in the four month study and submitted it to the Steering Committee (comprising representatives of the State Planning Commission, South West Development Authority and the Shire of Busselton, identified in Appendix 1).

The three client bodies used the consultant report to prepare a structure plan to form the basis of future planning decisions, guiding development and for suggesting design guidelines for future development. As a consequence, this report provides only a precis of the data and information gathered during the study. This report provides the logic for the all-important structure plan.

The Plan is intended to assess and provide for the needs of Dunsborough over the next ten years. It is, however, necessary to plan further ahead than ten years to ensure that the community knows in which direction the town will grow and what to expect of its developers - some of whom may have a horizon beyond ten years.

In releasing the Dunsborough Structure Plan the Government wishes to emphasise that the report is not a statutory document. It is a statement of general policy to assist the Shire of Busselton and the community, in the preparation of their town planning schemes and to guide development in the region.

The Government cannot agree in advance with all the recommendations in the report. Each will be considered on its merits in due course as various proposals and assessments emerge through the statutory planning process.



.....  
Kay Hallahan, MLC  
Minister for Planning and Lands

## 2. REGIONAL POLICY FRAMEWORK

The Leeuwin Naturaliste Region Plan, Stage 1, was released as Government policy in August 1988 (references are contained in Appendix 2). The Plan provides the regional planning context for this structure plan.

Many of the strategies contained in the Region Plan directly or indirectly affect Dunsborough. In general, the Region Plan emphasizes the need to focus future development on centres such as Dunsborough where services are available (strategies 12, 38 and 82). This particularly applies to medium density development (40 and 49), retirement dwellings (48) industrial development (34) and the development of areas around Dunsborough for rural living (42).

Other strategies emphasize the need for development to avoid ridgelines (69), wetlands (73) and to avoid ad hoc commercial strip development on roads leading into Dunsborough (37). Notably there is a presumption in strategy 64 against residential or resort development in that area west and north of Dunsborough - the Naturaliste ridge.

The importance of providing adequately for future tourist development, particularly adjacent to the coast, by the zoning of land for short stay accommodation with no right to subdivide for residential use is advanced in strategies 16 and 17. Generally the need for structure planning to precede urban, special residential and special rural development and to identify social infrastructure requirements while protecting the local amenity is recommended (46 and 84).

The Region Plan specifically identified Curtis Bay as a location for facilities for professional fishermen and recreational users subject to management of sand drift being feasible (29 and 51). Such facilities would include backup services (51 and 52), and, subject to environmental acceptability, would include a boat ramp and service jetty to relieve present congestion between boats and swimmers at Dunsborough even if a harbour proved impractical (53).

Following the completion of the Region Plan a Planning Statement was released in August 1988 for Policy Area 3 (that triangular area between Dunsborough, Cape Naturaliste and Yallingup) (Ref 2). This Statement noted that because of the opportunities created by the Region Plan there was an urgent need to set urban design guidelines and prepare a structure plan for Dunsborough to guide growth and enhance the recreational and living character of the area. In particular the Plan was required to address the way in which proposals at Curtis Bay and elsewhere would be considered in the light of community needs, urban design and urban expansion. It was emphasized that the Curtis Bay proposal itself should be consistent with the character and amenity of the area and subject to an ERMP.

These regional planning studies have provided the impetus to this structure planning study and the specific recommendations have been used for guidance throughout.

### 3. STUDY AREA AND REGIONAL LOCATION

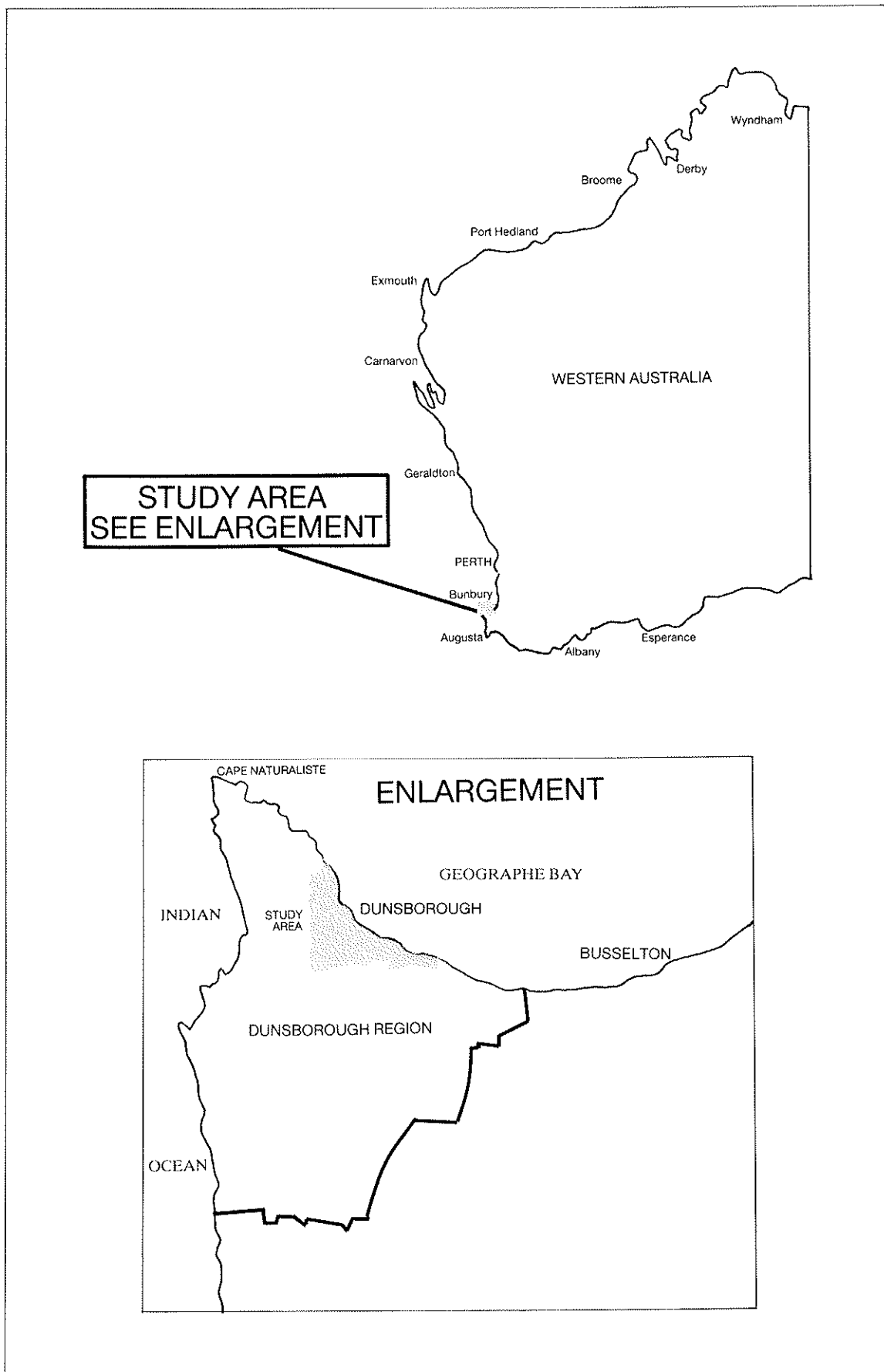
The study area is shown on Plan 1. In addition it is necessary to consider the role Dunsborough plays in a wider context in order to establish the services and facilities it is appropriate to plan for.

While the proximity of Dunsborough to Busselton reduces its significance in a regional sense, Dunsborough is the largest settlement on Cape Naturaliste. Dunsborough acts as a base for activities, retailing and other services for the area reaching to Cape Naturaliste in the north and Yallingup to the west and the rural and semi rural settlements to the south as far as the Shire of Busselton boundary.

It is noted that the population of this area nearly doubled between the 1981 and 1986 Census.

Within this area there are many tourist attractions and a range of economic activities. But only Dunsborough provides a centre which can offer a range of services normally offered and expected by modern society. Hence the conclusion of the Region Plan that Dunsborough should be planned for as an important service centre. Shops offering a full range of goods, access to medical services, good water supply and sewerage may be taken for granted by most people, but in rural areas these services are scarce and must be nurtured and supported rather than dissipated. This is particularly pertinent for areas relying for their economic well being on the seasonal vagaries of tourism.

Dunsborough's role has developed over the past two decades as a mid level service centre which has saved those living in the western part of the Shire from travelling to Busselton itself. Recent development proposals suggest that Dunsborough and its hinterland are likely to accommodate some major developments in the future. Therefore it is timely to think ahead to assess what types of service should now be focused in Dunsborough.



## 4. KEY FACETS OF THE NATURAL AND MAN MADE ENVIRONMENT

### 4.1 History

Structure planning needs to take account of and capitalise upon the main historical features. In Dunsborough there is little evidence of pre-colonial Aboriginal habitation and early white settlement.

There are two identified Aboriginal sites within Dunsborough that are required to be protected from development. However, due to Dunsborough's popularity with early Aborigines it is likely that there are undiscovered sites within the immediate vicinity.

*It is possible that Aboriginal sites may be discovered, and found to be of significance, as Dunsborough is increasingly developed.\**

While farms were established on the Cape in 1832 it was not until the establishment of the whaling and timber industries that a significant population moved into the area. Whaling had a limited impact on the region's development although a number of employees established houses in the area, however a major impetus to development was provided by the establishment of an export orientated timber industry at Quindalup in 1856. Quindalup soon became the significant settlement in the region containing a school, post office, police station, store and community hall.

The school has since been converted into a Youth Hostel as the only survivor of the early buildings however remains of early development include cairn ruins at Whale Lookout Rock, jetty, tramway and bridge remains at Quindalup and Harwood's farm on Caves Road.

The Dunsborough townsite was gazetted in 1879 but early development was slow. Dunsborough was relatively small in 1959 when the water scheme was connected to 70 houses and in 1962 the townsite was connected to the electricity grid. Not until the 1970's did the rate of expansion increase markedly.

*While the southern end of Dunn Bay Road has historical value as the site of Dunsborough's first commercial developments and Old Dunsborough itself has a general historical character, the town contains no specific features of European heritage that have to be considered in the structure plan.*

\* Highlighted areas are conclusions from the assessment by the Study Group.

## 4.2 The main features of the Dunsborough environment

Generally the main physical features of the study area relate to the western hills, the higher northern lands of the Meelup Reserve, the flatter coastal plain, the wetlands and water courses and the coastline. Some significant vegetation is associated with each of these land forms. Imposed on these natural features is the building development already undertaken in the development of Dunsborough.

The high aesthetic value of the environment is a significant feature of Dunsborough providing a scenic setting for urban development but also providing a constraint in that development should create minimal impact on the environment. Insensitive building design and siting will see the essential quality of Dunsborough compromised.

The exposed granulite headland of Meelup Reserve and the indented sandy bays with rounded gneiss boulders of Curtis Bay, Point Dalling and Point Daking afford wind protection which contributes to Dunsborough's attractiveness as a tourist destination, particularly for small boating recreation and young families and the elderly. This is in contrast with Geographe Bay which is exposed to the full force of the winter winds.

*The sheltered aspect of Dunsborough is a relatively unique feature which should be capitalised on.*

The section of the Perth Basin at Dunsborough is predominantly a flat, low lying plain containing coastal-linked wetlands, most notably the Broadwater Swamp. In addition there are a number of smaller wetlands in low lying areas, such as those within and adjacent to Reserve No. 28683 west of Naturaliste Terrace. The coastal plain is crossed by a series of artificial and natural water courses, draining from the high land to the south down to the coast (See Plan 2). Several of these drainage lines run through areas of existing or proposed development. Toby's Inlet is fed by a series of water courses draining from the south west. The Inlet is open to the sea, although it remains fresh. While run-off draining into Toby's Inlet and Broadwater Swamp is not currently polluted beyond acceptable levels according to the EPA, wetlands such as this are prone to eutrophication if land use in the catchment create increased nutrient loads.

Currently the Inlet provides an important drought refuge for waterbirds when the nearby wetlands dry up in summer. The peripheral vegetation is also a significant habitat for bandicoots.

*It is important that natural or appropriately modified creeklines and associated vegetation and wetlands are protected as important landscape elements.*

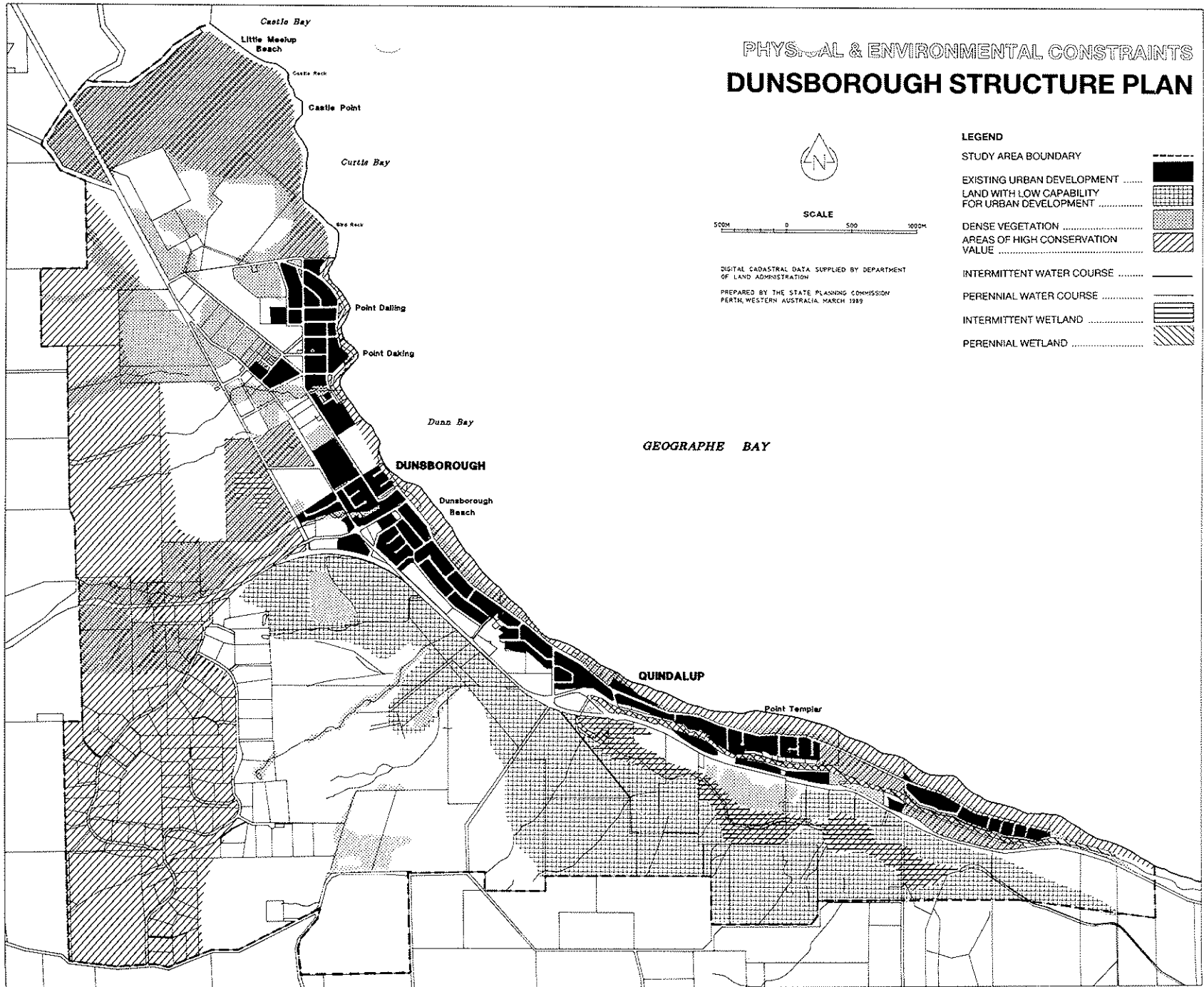
*While there are constraints related to individual soil associations (e.g. poor drainage in some of the Ludlow Plain associations south of Caves Road and the leached nature of Abba Plain soils north east of the town centre and on the pasture lands south of Caves Road) engineering measures along with appropriate forms of development would enable most areas to be utilized. Also while some of the soils have agricultural potential, their relative scarcity and the demand for urban type uses advocates a higher use.*

Within the coastal plain some significant stands of vegetation deserve mention.

- The coastal peppermint woodlands have landscape conservation value.
- The paperbark swamplands and associated open water.
- The nature of the environmental surroundings provide a level of constraint upon development particularly the poorly drained land to the south and the aesthetically sensitive landscape.
- Crown Reserve No. 28683 should be dedicated to the preservation of flora and fauna.

The coastline itself is valuable as a landscape feature and recreation resource. The dune system should be protected from excessive pressure by management and monitoring and development in low lying land adjacent to the coast should take account of storm surge predictions which take account of the Greenhouse effect.

# PHYSICAL & ENVIRONMENTAL CONSTRAINTS DUNSBOROUGH STRUCTURE PLAN



DIGITAL CADASTRAL DATA SUPPLIED BY DEPARTMENT OF LAND ADMINISTRATION  
PREPARED BY THE STATE PLANNING COMMISSION  
PERTH, WESTERN AUSTRALIA, MARCH 1989

**LEGEND**

STUDY AREA BOUNDARY .....	
EXISTING URBAN DEVELOPMENT .....	
LAND WITH LOW CAPABILITY FOR URBAN DEVELOPMENT .....	
DENSE VEGETATION .....	
AREAS OF HIGH CONSERVATION VALUE .....	
INTERMITTENT WATER COURSE .....	
PERENNIAL WATER COURSE .....	
INTERMITTENT WETLAND .....	
PERENNIAL WETLAND .....	

PLAN 2

[Recommendations by the US Committee on Engineering Implications of Change in Relative Mean Sea Level (1987) suggest an allowance of 10cms rise over the next 25 years. This allowance is in accord with recent studies and should be considered to be realistic with available data. Short term planning should parallel this estimate, however long term planning might consider a value of 50cms to 1.0m for sea level rise in addition to any other regional rise (or fall) that may occur. In addition, any sea level rise on a sandy coast would be accompanied by shoreline erosion, possibly of the order of 100m for every 1m rise in sea level.]

*The wholesale development of low lying land should be discouraged as a general policy, and emphasis should be placed on higher ground development.*

The ocean creates swell energy which impinges on the coast between Cape Naturaliste and Dunsborough. It is greatest at the Cape but diminishes considerably at Dunsborough. This swell energy causes sand to move along the coast from the Cape towards Dunsborough. Because of the angle at which the swell strikes the coast surplus sand drifts southwards and some of it is trapped in embayments such as Meelup Beach. The remainder continues along the coast until the energy of the swell has diminished to a value which is insufficient to keep the sand in motion. This point is reached in the Dunsborough area and accounts for the rapid growth in the last 50 years of the Dunn Bay bar system.

In addition extensive sea grass fields exist off Dunsborough. These also have the effect of slowing down the rise of sand movement along the sea bed however should the loss of any of the seagrass occur there would be resultant increased rates of sediment transport.

*Based on the advice of Hames Sharley Australia (Ref 3) it is likely that a boat harbour sited in Curtis Bay would be subject to siltation due to the sand drift from the north and the continuing growth of the bar and that localised erosion could occur to the south.*

### 4.3 Town Character

Man's impact on Dunsborough has been through the clearing of the natural vegetation and through the establishment of the townsite at the foot of Meelup Reserve and between the coast and the wetland system. While Old Dunsborough and most of Quindalup has a certain charm as it has blended in with its natural environment the Hames Sharley Report (Ref 3) found that new residential development is badly designed, badly sited, and displays a total disregard for the natural environment. This is in contrast to the beautiful natural character of the coastal, bush and wetland environment and the simplicity, human scale and respect for beach front, creek and wetland systems and large shade trees that earlier cottages displayed.

Policies for new development should ensure that:

- the scale of adjacent development is considered;
- new development does not visually intrude on sensitive landscapes or significant views;
- structures avoid ridgetops;
- contour sensitive development is encouraged;
- hard lines are softened by landscaping;
- prominent landscaping utilize trees which harmonize with town character; and
- significant stands of natural vegetation is retained whenever feasible.

#### *4.4 Description of Landscape Units*

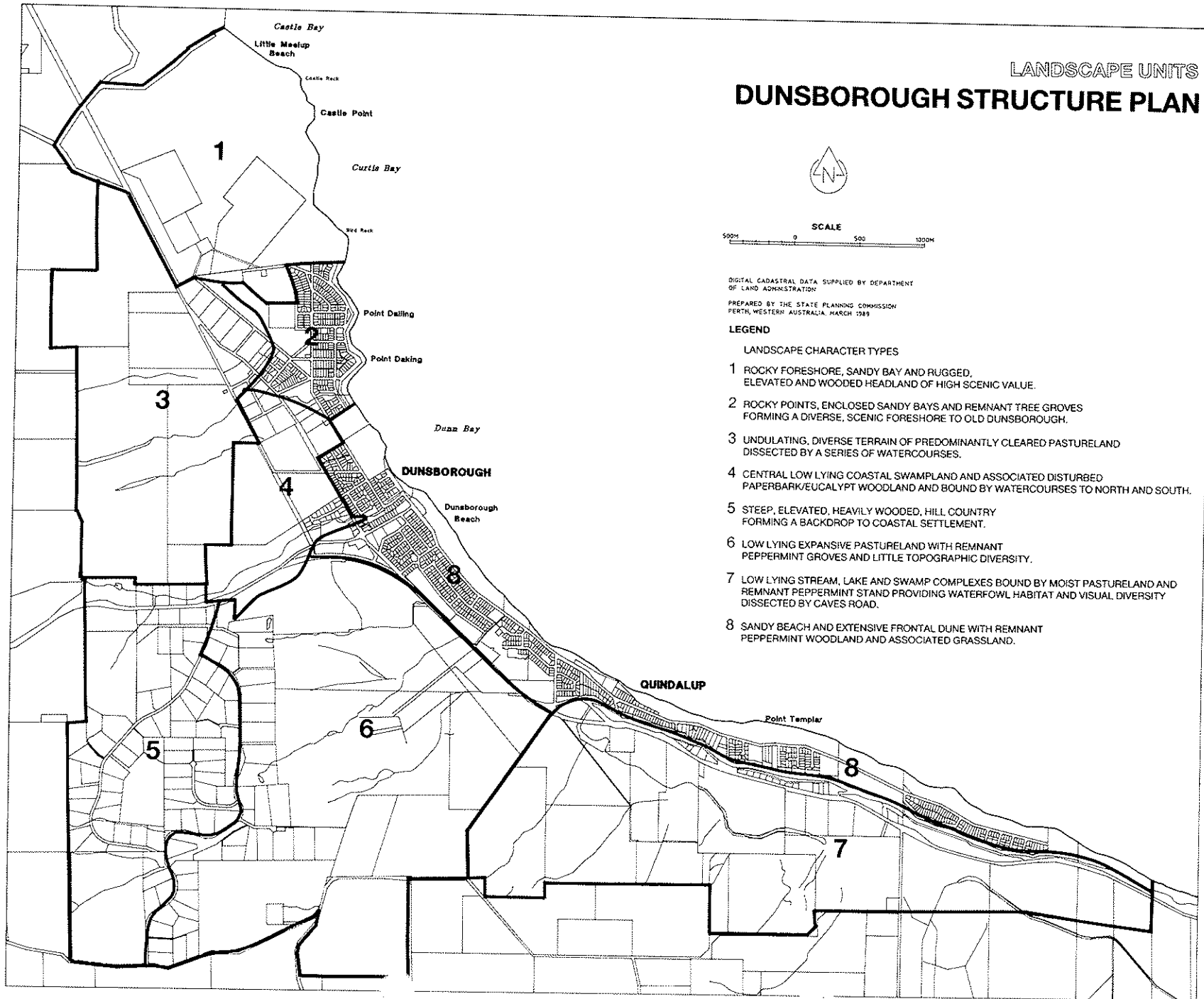
The study area has been divided into landscape units which are shown on Plan 3 and described below.

##### *Area 1 Meelup Reserve*

The Meelup Reserve system contains a significant variety of vegetation types that are poorly represented elsewhere and which reach their best development here. These include the *Calothamnus graniticus* heath along the coast and Jarrah/Marri woodland and forest. The coastline comprises a series of rocky headlands and sheltered sandy bays contrasting with the sandy shores eastward and the more dramatic coast of the Cape.



**1. The Meelup Reserve looking north.**



# LANDSCAPE UNITS DUNSBOROUGH STRUCTURE PLAN



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 PREPARED BY THE STATE PLANNING COMMISSION  
 PERTH, WESTERN AUSTRALIA, MARCH 1989

**LEGEND**

LANDSCAPE CHARACTER TYPES

- 1 ROCKY FORESHORE, SANDY BAY AND RUGGED, ELEVATED AND WOODED HEADLAND OF HIGH SCENIC VALUE.
- 2 ROCKY POINTS, ENCLOSED SANDY BAYS AND REMNANT TREE GROVES FORMING A DIVERSE, SCENIC FORESHORE TO OLD DUNSBOROUGH.
- 3 UNDULATING, DIVERSE TERRAIN OF PREDOMINANTLY CLEARED PASTURELAND DISSECTED BY A SERIES OF WATERCOURSES.
- 4 CENTRAL LOW LYING COASTAL SWAMPLAND AND ASSOCIATED DISTURBED PAPERBARK/EUCALYPT WOODLAND AND BOUND BY WATERCOURSES TO NORTH AND SOUTH.
- 5 STEEP, ELEVATED, HEAVILY WOODED, HILL COUNTRY FORMING A BACKDROP TO COASTAL SETTLEMENT.
- 6 LOW LYING EXPANSIVE PASTURELAND WITH REMNANT PEPPERMINT GROVES AND LITTLE TOPOGRAPHIC DIVERSITY.
- 7 LOW LYING STREAM, LAKE AND SWAMP COMPLEXES BOUND BY MOIST PASTURELAND AND REMNANT PEPPERMINT STAND PROVIDING WATERFOWL HABITAT AND VISUAL DIVERSITY DISSECTED BY CAVES ROAD.
- 8 SANDY BEACH AND EXTENSIVE FRONTAL DUNE WITH REMNANT PEPPERMINT WOODLAND AND ASSOCIATED GRASSLAND.



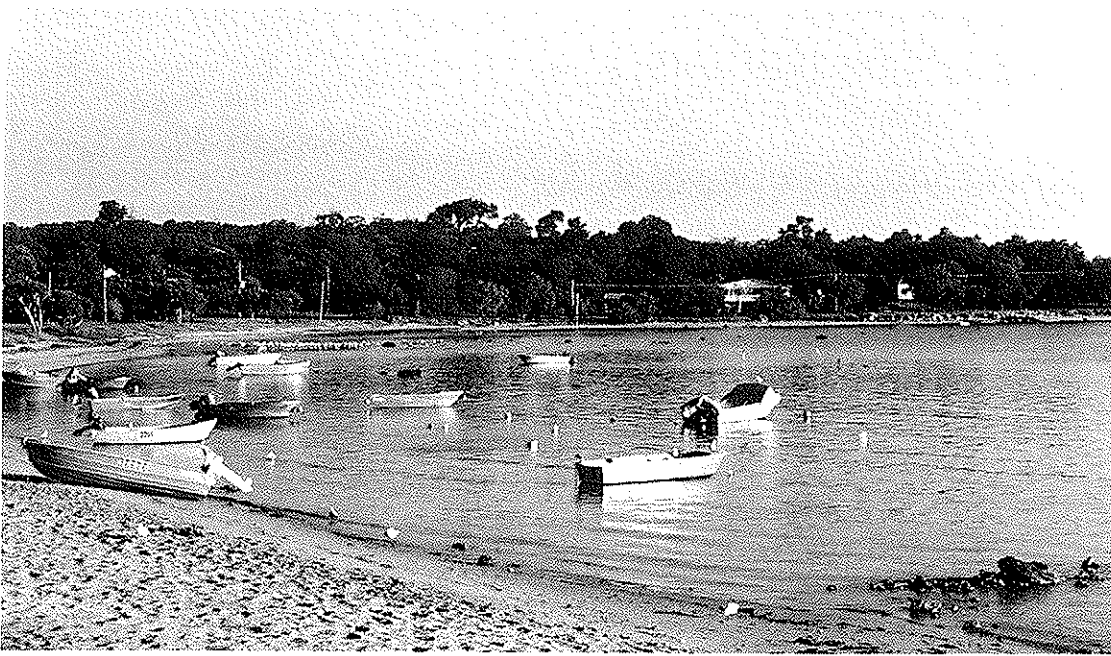
**2. Gravel pits in the Meelup Reserve.**

The reserve has a high conservation value as a result of the diversity of vegetation types, its associated habitat value as well as its general aesthetic appeal, even though the area has been somewhat degraded in portions as a result of fire, and the location of a rubbish tip and gravel pits.

The Jarrah/Marri woodland of the Meelup Reserve also provides a visual boundary and backdrop to the town and in association with the golf course provides for a recreational opportunity in a natural setting. It is this setting which adds to the appeal of Dunsborough as a holiday destination in contrast to nearby towns such as Busselton.

### ***Area 2 Old Dunsborough***

This is an undulating area rising from the sandy bays lying between the headlands either side of Points Dalling and Daking. Several elements of the building environment demonstrate a high level of amenity. "Old Dunsborough" is a particularly beautiful area, and further development should reflect this quality.



**3. Old Dunsborough and Point Daking.**

The existing Country Club presents opportunities for consolidation as a recreation/community focus, particularly with the relatively undisturbed vegetation on adjacent Crown reserves.

The charm of the existing development area owes much to the way in which the natural vegetation including many peppermints and large mature Marri has been retained and encouraged within the settlement. Even infill development has been able to occur while allowing for the retention of a canopy of trees which soften new development and provide summer shade.



**4. Tree canopy in Old Dunsborough.**

### *Area 3 Undulating Pasture*

This area of undeveloped land is divided by the proposed Seymour Street. To the north the land is heavily vegetated with Jarrah and Marri both sides of a creek. The mature stands of trees in conjunction with the seasonal flowing creek, the undulating character of the land and the adjacent golf course, could provide an opportunity to develop in the best tradition of Old Dunsborough.



**5. Future development area as seen from the golf course.**

The open cleared landscape west of Seymour Street provides a particular constraint in that any development will be highly visible. However the land is more elevated and consists of undulating pasture land bisected by treed watercourses of flooded gum and swamp paperbark. This topographically diverse and visually attractive landscape has potential for landscape improvement through additional tree planting associated with any future development.



**6. Cleared pasture west of proposed Seymour Street.**

#### *Area 4 Coastal Swampland*

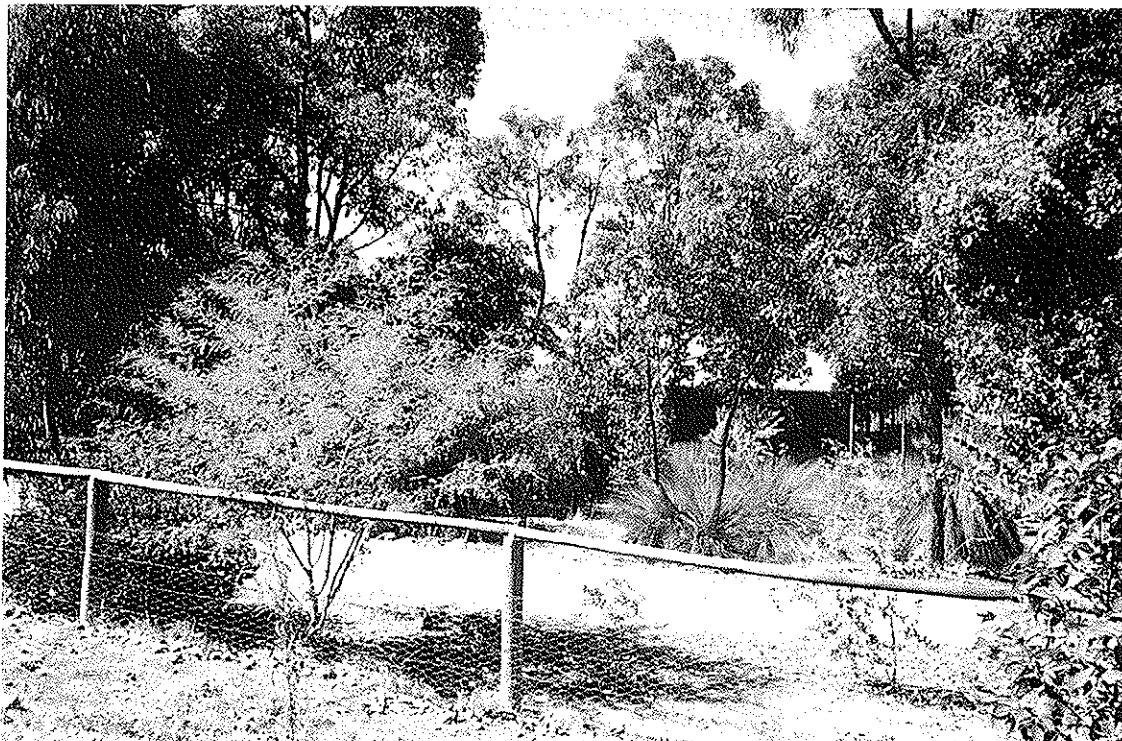
This area adjacent to Naturaliste Terrace is bound by a broad low lying area containing Paperbark swamps and associated Eucalypt woodland. Watercourses feed into this area and wildlife observation indicates it is a well used habitat. Generally the area is undeveloped with valuable stands of remnant vegetation. A cemetery is located in the area.



**7. Dense eucalypt woodland within area 4.**

### *Area 5 Forested Scarp*

This area of special rural development is steeply sloping and well wooded with jarrah open forest. It provides an attractive backdrop to the town although there are places where obtrusive development, notably zinc alloy roofs and sheds, is visible from a distance.



**8. Typical special rural development.**

The land unit includes Caves road as it ascends towards Yallingup through an attractive pass vegetated with flooded gums and Marri open forest and occupied by a creek.

### *Area 6 Low Lying Pastureland*

This broad low lying pastureland of Pattons Paddock contains scattered stands of mature peppermint and paperbark trees. The area provides an attractive rural setting as an entry to the town and allows unrestricted views to the wooded scarp to the west. This setting could be reinforced by tree planting along Caves Road to highlight the approach to the townsite and lessen the visual dominance of the Resort Hotel and expansive carpark. The lowest lying land provides some drainage problems and may present constraints to development in reducing the area of buildable land or imposing cost penalties.

However, a mixed housing, special rural and golf course development has already been proposed for this land. This proposal may provide benefits in terms of nutrient management into Toby's Inlet from the current drainage systems extending through the land from the adjacent unsewered Special Rural Zone in Area 5.



**9. Patton's Paddock looking south-west from Caves Road.**

#### ***Area 7 Toby's Inlet And Broadwater Swamp***

South east of Quindalup, urban development is constrained by Toby's Inlet and, further inland, by the broad expanse of Broadwater Swamp, a low lying wildlife area of paperbark wetland and open water. A heavily vegetated area of peppermint woodland with wattles is located between Broadwater Swamp and Caves Road. A small settlement occurs along Caves Road between these two waterbodies.



**10. Paperbarks in Broadwater Swamp.**



11. Toby's Inlet and Quindalup.

The valued year round wildlife refuge of Toby's Inlet is generally poorly visible and difficult to access. However an opportunity exists to improve access to the area, provide a picnic site adjacent to the old bridge and waterfowl observation facilities.

While vegetation clearing on this system for urban development has not caused stability problems to date, further clearing and subdivision should be prohibited.

Further inland, the soil is unsuitable for agricultural use due to either salinity, low groundwater quality and poor nutrient availability, or severe waterlogging and salinity. The area is highly visible from the road and relatively distant from the centre of Dunsborough. These factors tend to preclude the development of the land as part of Dunsborough. Should the land be so developed it should be portions of land south of Broadwater Swamp, hidden from Caves Road.

### **Area 8 Coastal Settlement**

Recent development has extended in a linear fashion along the low dunes of Geographe Bay. A thin band of remnant peppermint woodland and associated spinifex grassland extends along the frontal dune, showing lesser disturbance and denser understorey east of Quindalup. A major concentration of peppermints occurs on the Quindalup Reserve in the eastern portion of the land unit. This woodland is the most notable landscape element of this foreshore and future landscape improvement schemes should reinforce this intrinsic character.



**12. Residential development in Quindalup.**

A group of mature Norfolk pines provide a distinctive and attractive landmark at the Youth Hostel. Similar planting could be used in combination with endemic species to highlight further landmarks or act as an entry statement to a particular area.



**13. Norfolk Pines in front of Quindalup Youth Hostel.**

The town centre also occurs in this landscape unit. The centre is rendered unattractive by power lines, traffic and poorly designed parking areas, however some attractive natural elements are in evidence. The creekline with its associated flooded gum and Marri open forest provides a potential linear walkway and area for shoppers and shops to overlook. The park with its remnant trees also provides a natural focus which would lend itself to more planting and a closer relationship with the centre forged by traffic rationalization.



14. New Dunsborough Shopping Centre.

## 5. EXISTING LAND USE, ZONING AND RESERVATIONS

5.1 In general, Dunsborough can be described as being essentially a residential and tourist oriented town with development being typically low scale and relatively expansive. Industrial and commercial facilities only occur in support of these primary uses.

The land use pattern in the study area, shown on Plan 4, comprises:

- Old Dunsborough living area;
- the shopping centre and adjoining short stay residential uses and light industrial area;
- the Quindalup living area;
- the hills rural living area between Biddle road and Caves Road;
- the rural areas west of Seymour Street and south of Caves road;
- the recreation and conservation areas at each end of the living areas; Meelup Reserve to the north and Toby's Inlet to the east and, the ocean foreshore.

The study area is subject to the provisions of Council's district zoning scheme (See Plan 5).

### 5.2 Existing Land Uses

The dominant zoning within the study area is General Farming with 1156 hectares being located mainly between the hills and the existing urban areas. These areas are currently being farmed, however due to close proximity to the urban areas changes in land use could be expected in the future.

The living areas constitute the most significant features of the built environment. Currently 125 hectares of land is zoned "Residential" of which approximately 95 hectares is developed. An additional 44 hectares are contained within a Residential Development Area (but not zoned Residential) and approximately 9 hectares is described as infill and rounding off of existing residential areas (also not zoned Residential). Therefore, approximately 83 hectares of land has the potential to be developed for residential purposes.

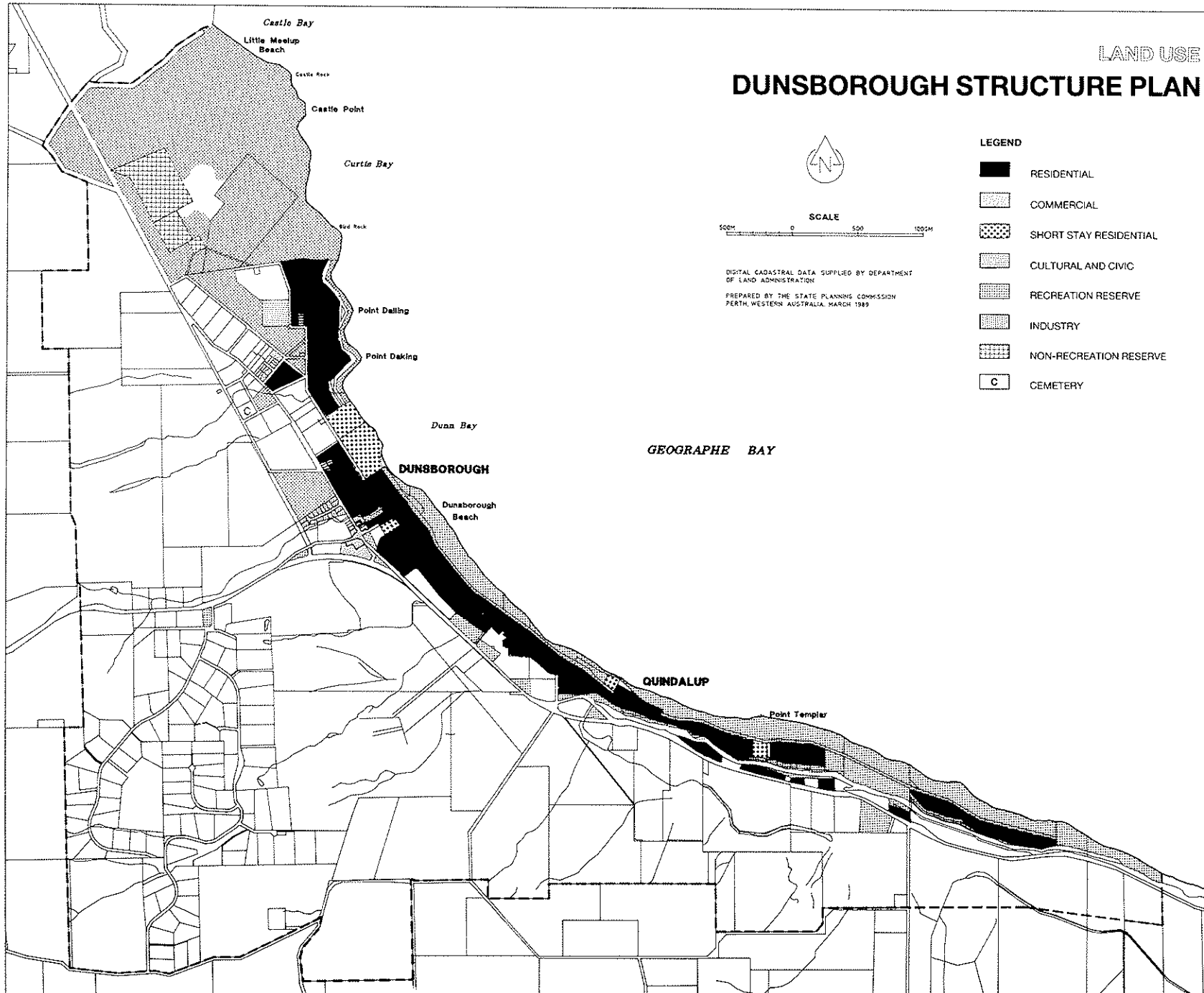
Two group housing areas totalling only .75 hectares are zoned and developed. An additional three small sites have been proposed for rezoning to grouped housing. Given that a substantial section of the living areas are now sewered, opportunities exist to increase residential density.

Currently only 15 of the 151 sewered lots with duplex potential in the study area are developed with a duplex.

Although essential for the growth of the tourist market, less than half of the area zoned for Short Stay Residential has been developed to the potential conferred by the zoning. Currently there is approximately 19 hectares zoned of which 9 hectares has been developed.

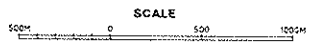
The centrally located shopping, service commercial and tourist "precinct" is extremely large for a town the size of Dunsborough. There is currently 3.4 hectares of land zoned "Commercial - Shopping" and "Hotel", which has been developed for a variety of shopping and commercial activities. The service commercial and light industrial component is however relatively small with 3.5 hectares being zoned "Light Industry" of which approximately 3 hectares has been developed. The small commercial/shopping area in Old Dunsborough is .45 hectares and although all lots have been developed, only two uses have established in the area.

The Biddles Road Special Rural Zone covers an area of 307 hectares and contains 108 lots. The area is nearly totally subdivided however, there is large number of lots which have not been developed.



LAND USE

DUNSBOROUGH STRUCTURE PLAN

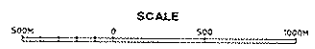
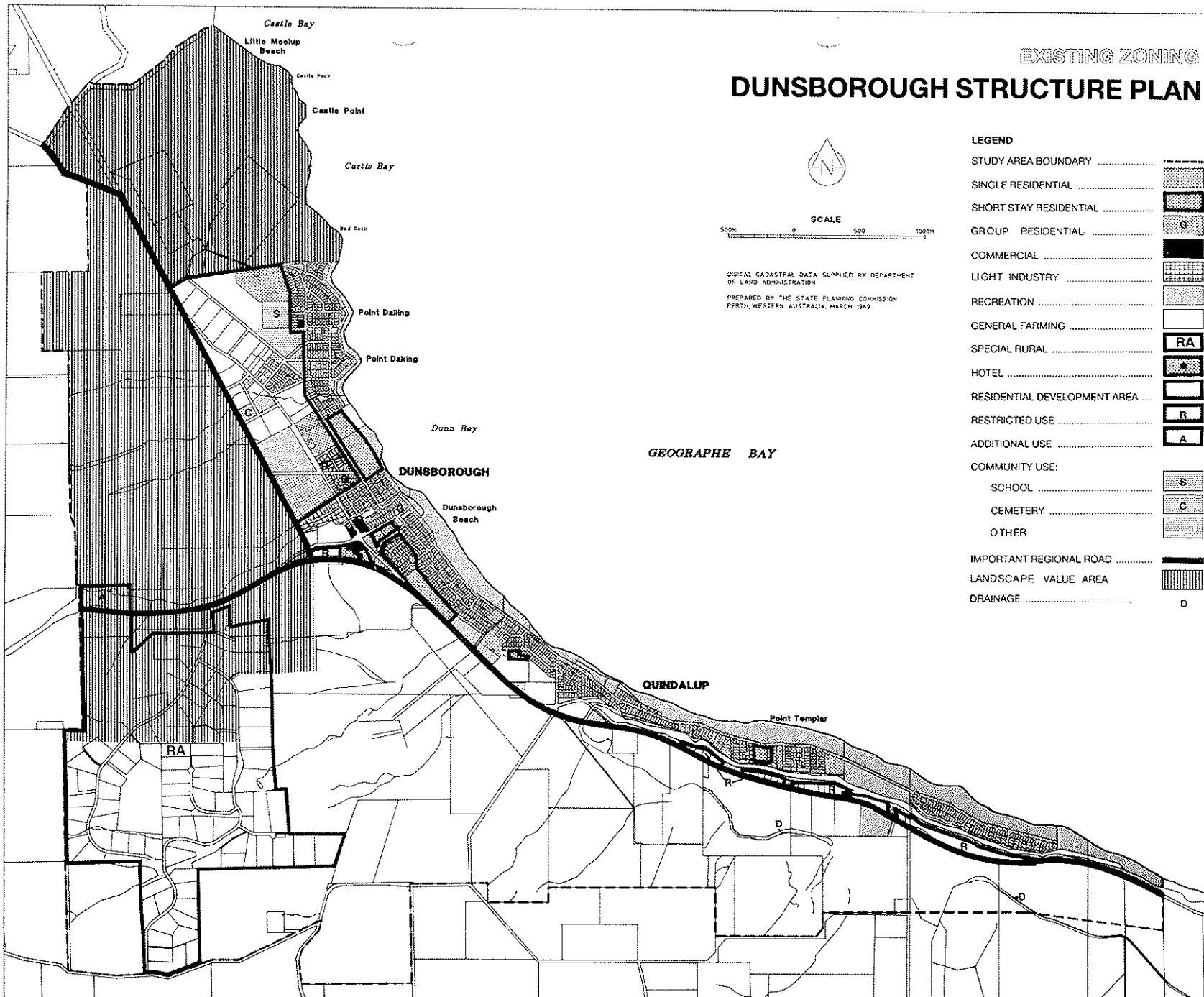


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LEGEND

- RESIDENTIAL
- COMMERCIAL
- SHORT STAY RESIDENTIAL
- CULTURAL AND CIVIC
- RECREATION RESERVE
- INDUSTRY
- NON-RECREATION RESERVE
- CEMETERY

# EXISTING ZONING DUNSBOROUGH STRUCTURE PLAN



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### **5.3 Reserves**

The Crown reserves in the study area are vital to the future of the town as they are the key to the provision of community services and facilities and the conservation and management of the major attractions of the area.

Dunsborough includes some 58 Crown reserves of varying sizes, and dedicated to a range of uses. These are subject to the control of the vested authority, or in the case of unvested reserves, the Department of Land Administration.

The importance of the reserves is highlighted by the amount of Crown land associated with Toby's Inlet (32 hectares), the ocean foreshore (58 hectares), Meelup Reserve (513 hectares), community purposes (5 hectares) and inland recreation (80 hectares). Other reserves include vestings for gravel extraction, rubbish disposal, camping, Government requirements, cemetery, drainage, roads, and water requirements totalling an area of approximately 28 hectares.

## 6. UTILITY SERVICES

### 6.1 Water Supply

The existing water supply for the study area is derived from two spring dams at Butterworth, which provide water only during the winter months, and three bores south of Quindalup. Water from these supply systems undergoes aeration and filtration and is pumped to a 4,500m<sup>3</sup> storage tank at the northern end of Dunsborough and then reticulated by underground pipes under pressure to consumers in Dunsborough. The water from the three Quindalup bores is currently abstracted from the Leederville Formation, a large unconfined aquifer. Additional supplies to meet the requirements of the projected population growth will be provided by further development of this formation in an area south of the existing bores, off Yallingup Siding Road.

The water supply systems will be able to be upgraded to meet the projected demand, however, a commitment will be needed from Government to provide the necessary funds as required, or, should major developments which require large capital commitments occur, then some assistance from the appropriate developer may be needed.

### 6.2 Sewerage

Currently only about 30 per cent of the developed areas within the study area are serviced by a sewerage reticulation system. These reticulated areas extend from the golf course in the north, Caves Road and Naturaliste Terrace in the east, the ocean on the west and Commonage Road in the south, (See Plan 6 ). Because of the generally flat nature of the area, four sewerage pumping stations collect sewage for forwarding on to a sewage treatment works located in Commonage Road, some 2.5 kilometres south of Quindalup beach and some 4.5 kilometres east of the existing Quindalup water supply bores.

The treatment works comprises a system of oxidation ponds with landbased effluent disposal, and is capable of adequately servicing the current resident and visitor population. A buffer should be retained of 500m around the works within which further residential development should not be permitted.

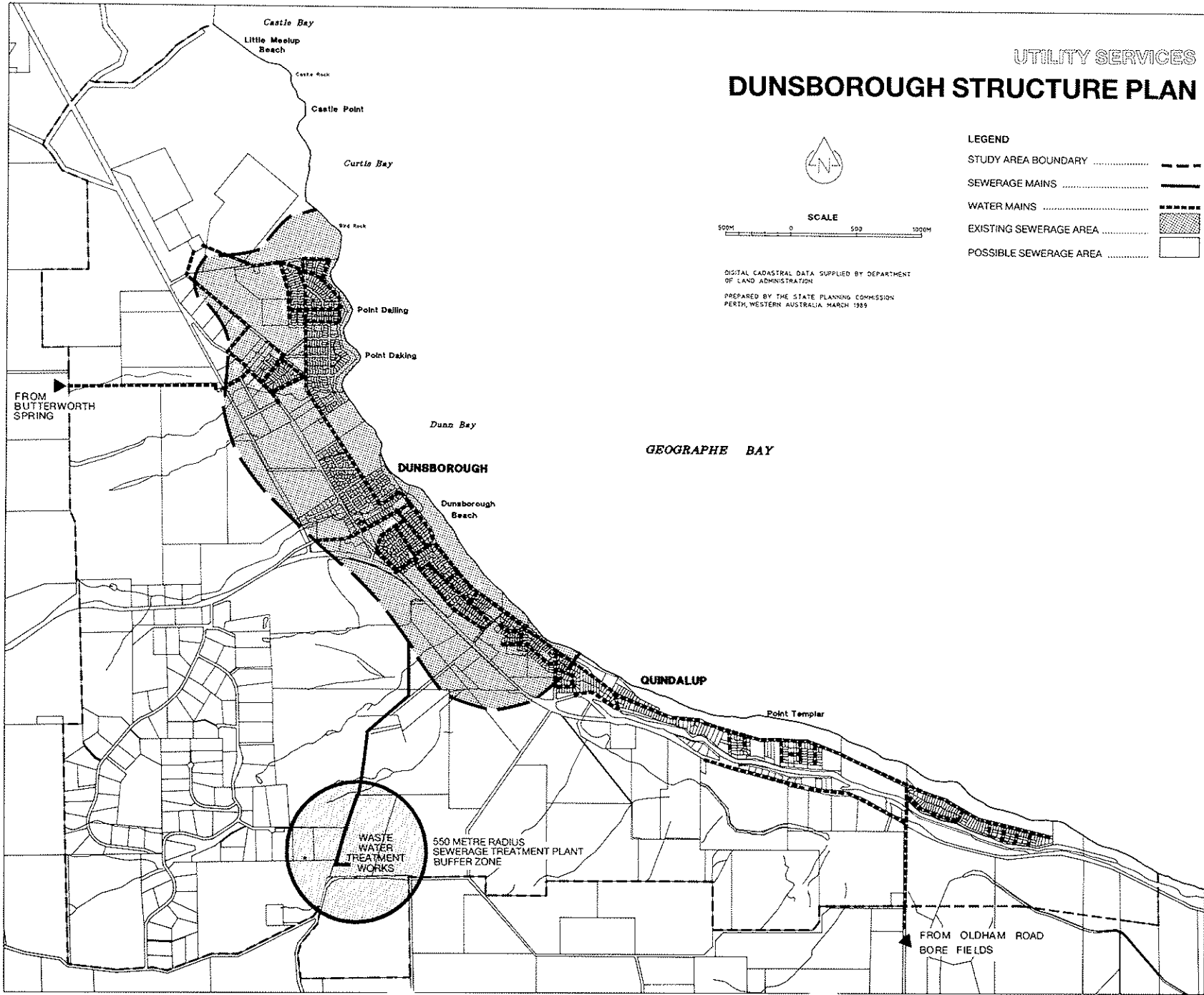
Any further residential or density developments in the study area will need to be provided with sewerage reticulation as sewerage is a mandatory condition of subdivision. Special rural developments will not require such a connection. The appropriate authority will be responsible for any upgrading required at the sewerage treatment works, and the developers of allotments will need to meet the cost of providing the sewerage reticulation services. No difficulty is envisaged in providing reticulation to potential residential land within the study area.

### 6.3 Drainage

Much of the Dunsborough and Quindalup area is low lying and has a groundwater level which rises close to the natural surface in the winter months. Some large areas south of Caves Road also exhibit this phenomenon. Other areas to the north near the existing golf course are well graded and no such problem exists.

Future developments will need to be adequately drained, with flows being compensated on the property and outflows to the existing system being similar to those which currently occur. While the aim should be to accommodate on the property any increased stormwater flows resulting from residential development and thereby reduce outflows to existing regional drains a comprehensive master drainage plan will be required for the expanded townsite. Future developers should contribute to this master drainage plan. In addition, a drainage outfall is required between the Greenacres Caravan Park and the town centre and redevelopment of any land in this area should make provision for such an ocean outfall.

# UTILITY SERVICES DUNSBOROUGH STRUCTURE PLAN



**LEGEND**

STUDY AREA BOUNDARY	-----	---
SEWERAGE MAINS	-----	————
WATER MAINS	-----	- - - - -
EXISTING SEWERAGE AREA	-----	▨
POSSIBLE SEWERAGE AREA	-----	□

SCALE  
500M 0 500 1000M

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Land south of Caves road falls within the Busselton Drainage District wherein the Water Authority will discourage outlet flows and any improvements to the system would be required to be to the Authority's specifications and at the developers cost.

In addition to the requirement to control stormwater run-off in some low lying areas subsoil drainage systems may be necessary to control the groundwater during the wet winter months.

## **6.4 Power**

Power is provided to Dunsborough from a substation in Busselton by a 22kv transmission line. This system currently only utilizes about 25 per cent of its capacity and therefore power supply will not be a constraint to future development.

## **6.5 Gas**

A reticulated natural gas supply is not available for the area and there are no plans for such a supply to be provided in the near future.

## **6.6 Telecom**

For developments which are contiguous to an existing townsite and provided the developer provides a trench to the existing plant, Telecom will expand the capacity of its plant as required, at no cost, to accommodate the increased demand for services at the time they are required. However, for developments which are non-contiguous, a "headworks" contribution from the development may be required.

For the study area, peripheral extension of the townsite presents no problems in terms of Telecom services.

## **6.7 Waste Disposal**

The Dunsborough and Quindalup urban areas receive a regular rubbish disposal service from Council. Over holiday periods this service is increased, particularly in public places. Currently waste is deposited at a tip site in the Meelup Reserve. This site is planned for closure within a year and will be replaced by a new site immediately east of Mount Duckworth, Yallingup.

## **6.8 Roads (plan 7)**

Regional access to Dunsborough is provided through Caves Road, a regional road that runs from Busselton to Augusta.

Access into the townsite is provided at three points, Elmore Street in Quindalup, Naturaliste Terrace and Dunn Bay Road in Dunsborough. Provision has been made in past schemes for a route to the Cape by-passing the town centre (Seymour Street) and by-passing Dunsborough itself (Mewett Road).

Within the townsite a circulation system is provided through a hierarchy of roads. Naturaliste

Terrace, Dunn Bay Road, Geographe Bay Road and Gibney Street act as local collectors. Naturaliste Terrace also carries through traffic to Cape Naturaliste. In addition to its role as a local collector road, Geographe Bay Road is a scenic drive, including good views of the coastal landscape and vegetation.

Areas of concern include speed control along Geographe Bay Road and Gifford Road, and the confined conditions at the commercial precinct.

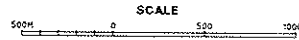
While traffic count data and accident statistics have yet to justify the need for a rationalization of the traffic network, it is evident that conditions in some areas, particularly the commercial centre, are unattractive and/or hazardous. The projected increased traffic movements associated with townsite and tourist growth suggest that some rationalization should take place.

The implementation of the by-pass routes (Seymour Street and Mewett Road) would alleviate many of the problems of congestion likely to be manifested in the future. The construction of Seymour Street as a regional access route to Cape Naturaliste is a priority. In conjunction with this action, Naturaliste Terrace should be closed at the intersection of Dunns Bay Road and other engineering investigations to provide for further development of the town centre as a pedestrian precinct.

## 6.9 Conclusion

- Public utilities will be able to respond to orderly development of the expanded townsite area. New developments can be supplied with sewerage and water reticulation and other utilities.
- Drainage is poor in some areas in winter and requires a plan to manage the outflows of stormwater from new development in West Dunsborough and to address the drainage problems associated with the development of any low lying land south of Caves Road.
- The existing Dunsborough tip site, located in the Meelup Reserve, is to close within a year and will be replaced by a new site near Yallingup. The rehabilitation of the Meelup Reserve site should be given a high priority to facilitate alternative uses.
- The existing traffic network includes several hazardous and/or unsightly elements. These can be rationalized and improved particularly by the modification of Naturaliste Terrace at the intersection of Dunn Bay Road and other engineering investigations at the Town Centre, and the early construction of Seymour Street.

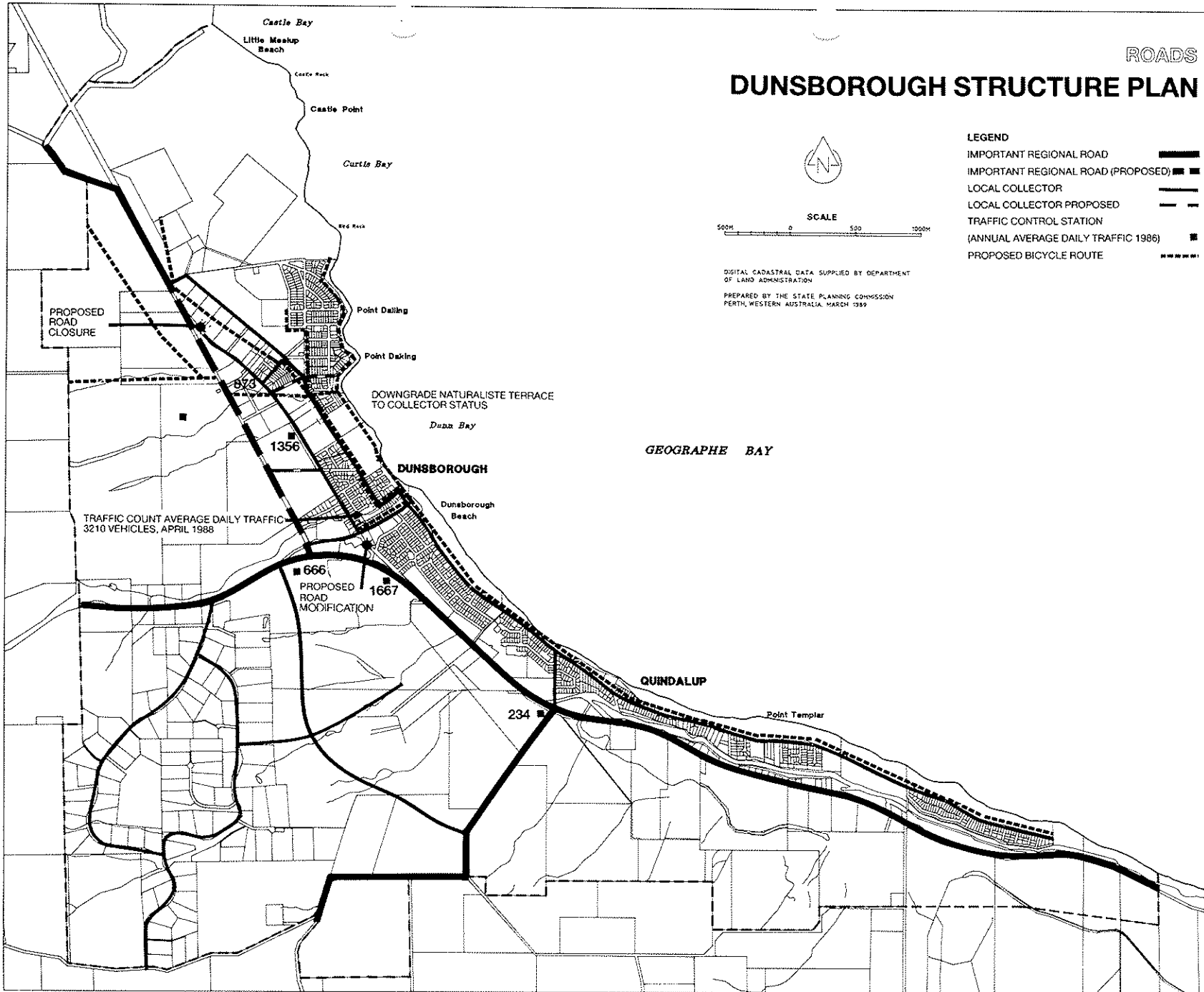
# DUNSBOROUGH STRUCTURE PLAN



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**LEGEND**

- IMPORTANT REGIONAL ROAD
- IMPORTANT REGIONAL ROAD (PROPOSED)
- LOCAL COLLECTOR
- LOCAL COLLECTOR PROPOSED
- TRAFFIC CONTROL STATION (ANNUAL AVERAGE DAILY TRAFFIC 1986)
- PROPOSED BICYCLE ROUTE



## 7. Community Needs Assessment

### 7.1 Introduction

Dunsborough has evolved rapidly from a small and remote settlement with relatively low visitor numbers to a town of regional importance which services the western third of the Shire of Busselton and large numbers of visitors and part time residents primarily from Perth.

The rapid building, visitor and permanent resident growth has led to an ad hoc approach to planning in the town resulting in services and facilities lacking direction and focus. The purpose of this Chapter is to equate identified needs with service provision.

### 7.2 Community Perceptions

The attractive physical setting of Dunsborough and its proximity to Perth has generated considerable interest in the establishment of a variety of projects.

Proposals such as a boat harbour at Curtis Bay, tourist resorts, strata titled caravan parks and shopping centres have been interpreted by the local community as having the potential to change the lifestyle and character of the area. Four local groups in particular, The Dunsborough Progress Association, The Dunsborough and Districts Country Club, the Dunsborough Concerned Citizens Group and the Dunsborough Chamber of Commerce have expressed strong views regarding these large development proposals.

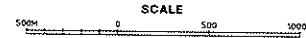
In the context of this study, community perceptions and attitudes were ascertained through written public submissions, and two public meetings held at the Dunsborough Hall on the same day in October 1988. Participants at the public meetings carried out a mapping exercise in which they were invited to draw the Dunsborough townsite on the theory that the clarity with which people perceive their surroundings is indicative of their comfort with it. The composite plan as prepared by Hames Sharley is included as Plan 8.

The conclusion of the mapping exercise was that the most strongly perceived landmarks were the Naturaliste Resort Hotel, the shopping centre and the Country Club Golf Course. The coastline was also a major element in the community's image of Dunsborough. A significant number of respondents commented on the general beauty of the area without specifying particular locations.

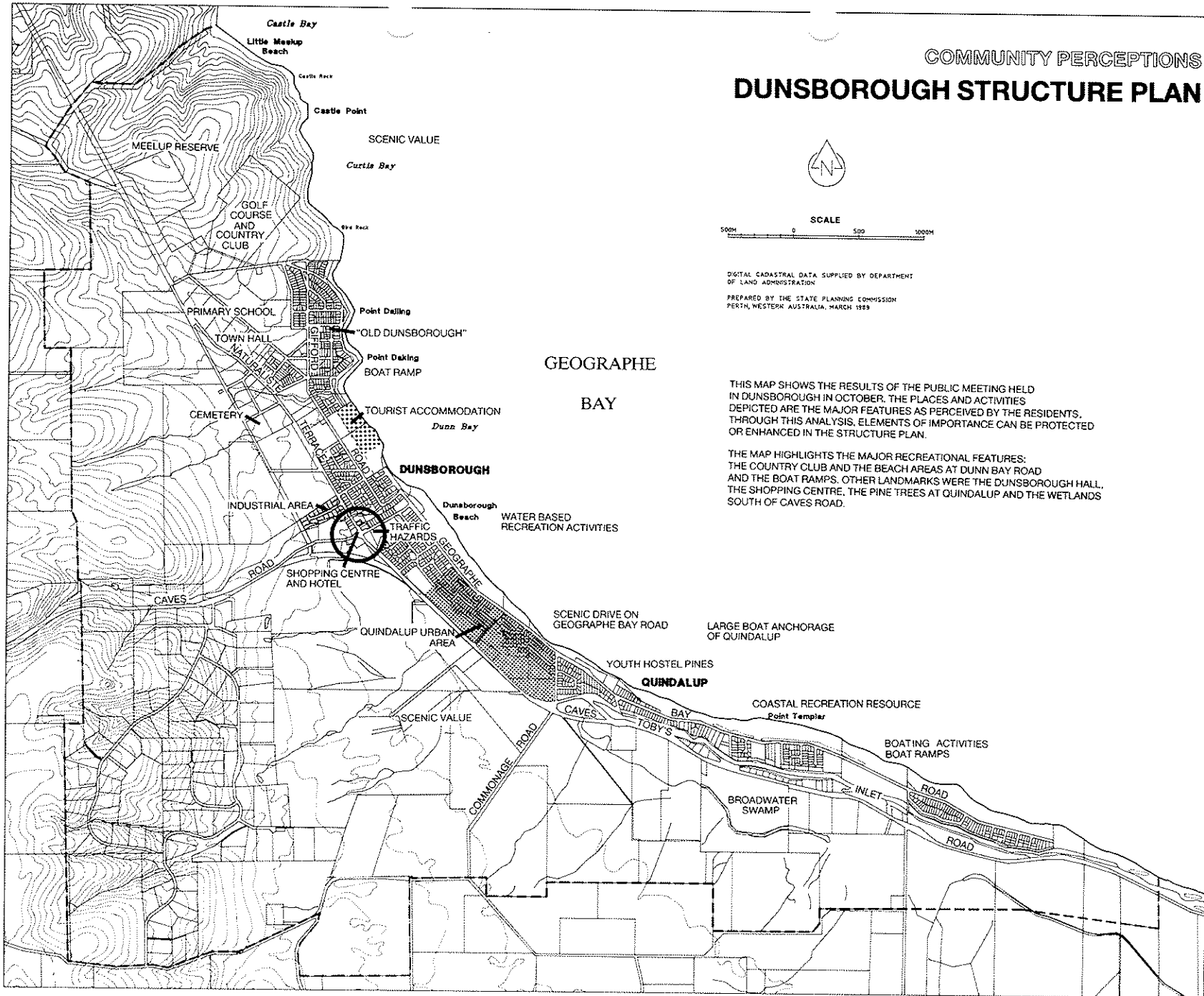
It was concluded (Ref 3) that the Dunsborough townsite is only moderately legible to the residents and that further development should seek to enhance cognitive cues, making Dunsborough more coherent to residents and visitors. Strategies to do this included the enhancement of the commercial centre, avenue planting on Caves Road, consolidating activity areas along the foreshore and at the Country Club, protect the wetlands and rationalise the road network.

Fifty written submissions were also received during the study. These focused on opposition to the development of a marina at Curtis Bay (52% mentioned this, 98% of which opposed development), the preservation of Meelup Reserve (40%), the retention of Dunsborough's character (25%), and the provision of cycle paths. New development should be directed towards previously cleared areas, preserve foredune vegetation and diversify the town's economic base.

# COMMUNITY PERCEPTIONS DUNSBOROUGH STRUCTURE PLAN



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 PERTH, WESTERN AUSTRALIA, MARCH 1989



GEOGRAPHE  
BAY

THIS MAP SHOWS THE RESULTS OF THE PUBLIC MEETING HELD IN DUNSBOROUGH IN OCTOBER. THE PLACES AND ACTIVITIES DEPICTED ARE THE MAJOR FEATURES AS PERCEIVED BY THE RESIDENTS. THROUGH THIS ANALYSIS, ELEMENTS OF IMPORTANCE CAN BE PROTECTED OR ENHANCED IN THE STRUCTURE PLAN.

THE MAP HIGHLIGHTS THE MAJOR RECREATIONAL FEATURES: THE COUNTRY CLUB AND THE BEACH AREAS AT DUNN BAY ROAD AND THE BOAT RAMPS. OTHER LANDMARKS WERE THE DUNSBOROUGH HALL, THE SHOPPING CENTRE, THE PINE TREES AT QUINDALUP AND THE WETLANDS SOUTH OF CAVES ROAD.

PLAN 8

Of the views expressed by the 160 people attending the public meetings the most generally accepted were:

- the need to protect Meelup Reserve;
- the need for a range of lot sizes;
- the need for development to be in harmony with rural character;
- the need to improve traffic circulation around the centre;
- the need to expand school, community, medical and sporting facilities;
- the need for aged persons accommodation, a police station, banking facilities and cycle paths;
- that public access to the coast should be provided;
- and, while it is difficult to generalise about the marina issue, it appeared that a service jetty alongside an existing boat ramp or a sheltered breakwater was favoured to an extensive marina development.

### ***7.3 Demographic Social And Economic Structure***

#### ***7.3.1 Population Growth***

At the 1986 Census the study area was divided into three Census Collector Districts (CCDs). At the 1981 Census a CCD covered Dunsborough but Quindalup was part of a wider area CCD. However, for the wider area of West Busselton Shire there has been consistency in boundaries between censuses. Growth in Dunsborough and its hinterland has therefore been assessed and is referred to as the Dunsborough Region, the area of which is shown on Plan 1.

An additional problem relates to the fact that the 1986 Census was undertaken during school holidays resulting in some distortions from tourist activity. Data corrected to show usual residence is available only at Local Government Area level precluding the adjustments being made specifically for Dunsborough. In the case of the Shire of Busselton the population of Census night was 8% higher than indicated from an analysis of normal place of residence.

As demonstrated in the following table, the intercensal growth in Dunsborough and its Region, even allowing for some overcounting due to school holidays, is very significant.

Table 1 1981-1986 Population, Dunsborough Region

Locality (and CCD code)	1981 Population	1986 Population
Dunsborough (1002)	680*	446
Dunsborough (1011)		364
Quindalup (1010)		330
Study Area Total	680	1140
South Quindalup (1003)	350	588
SE of Yallingup (1004)	267	366
Cape & Yallingup (1001)	271*	836
Sub Total	888	1790
Total Dunsborough Region	1568	2940

\* adjusted to take account of CCD boundary changes.

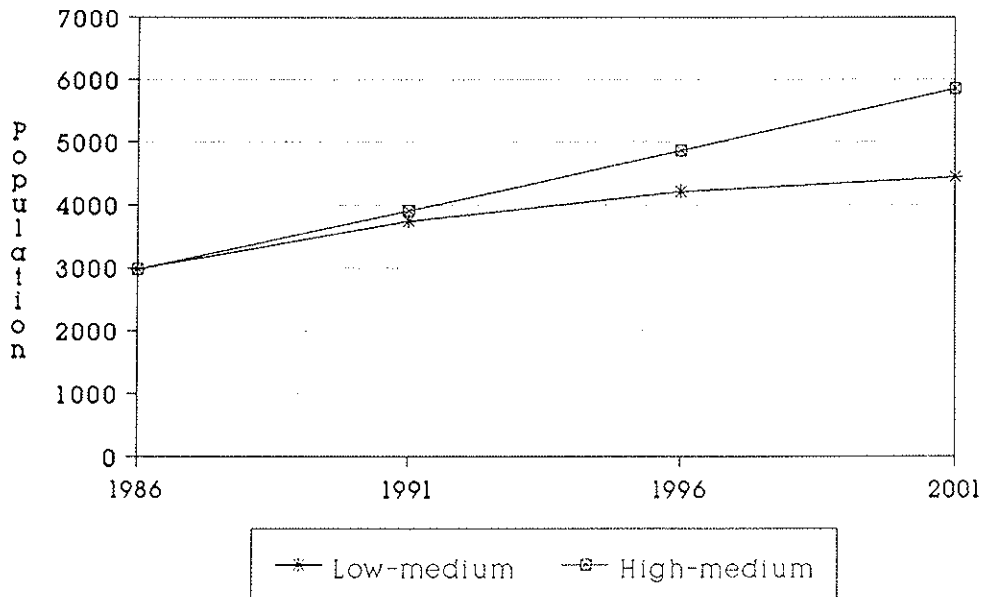
Source: Australian Bureau of Statistics.

It is apparent from the table that Dunsborough, and particularly its Region, experienced rapid growth between 1981 and 1986, with population in the wider area nearly doubling. While these figures need to be viewed with some caution due to the problem of Census night falling on school holidays, it should be pointed out that for climatic reasons winter school holidays is not a peak period for the study area.

Population projections for the Shire of Busselton have been prepared by the State Planning Commission to the year 2001. These figures, which have been adjusted for the 1986 Census holiday factor, have been used to project the population of the Dunsborough Region. It is estimated that the 6 CCDs representing the Dunsborough Region account for 26% of the Shire of Busselton's population and a similar factor is applied to future growth. The following graph provides a low-medium and a high-medium projection for the Dunsborough Region suggesting that a resident population (i.e. adjusted Census night population) of between 4446 and 5850 would be reasonable to plan for the Dunsborough Region.

Figure 1

## POPULATION 1986 - 2001 DUNSBOROUGH REGION

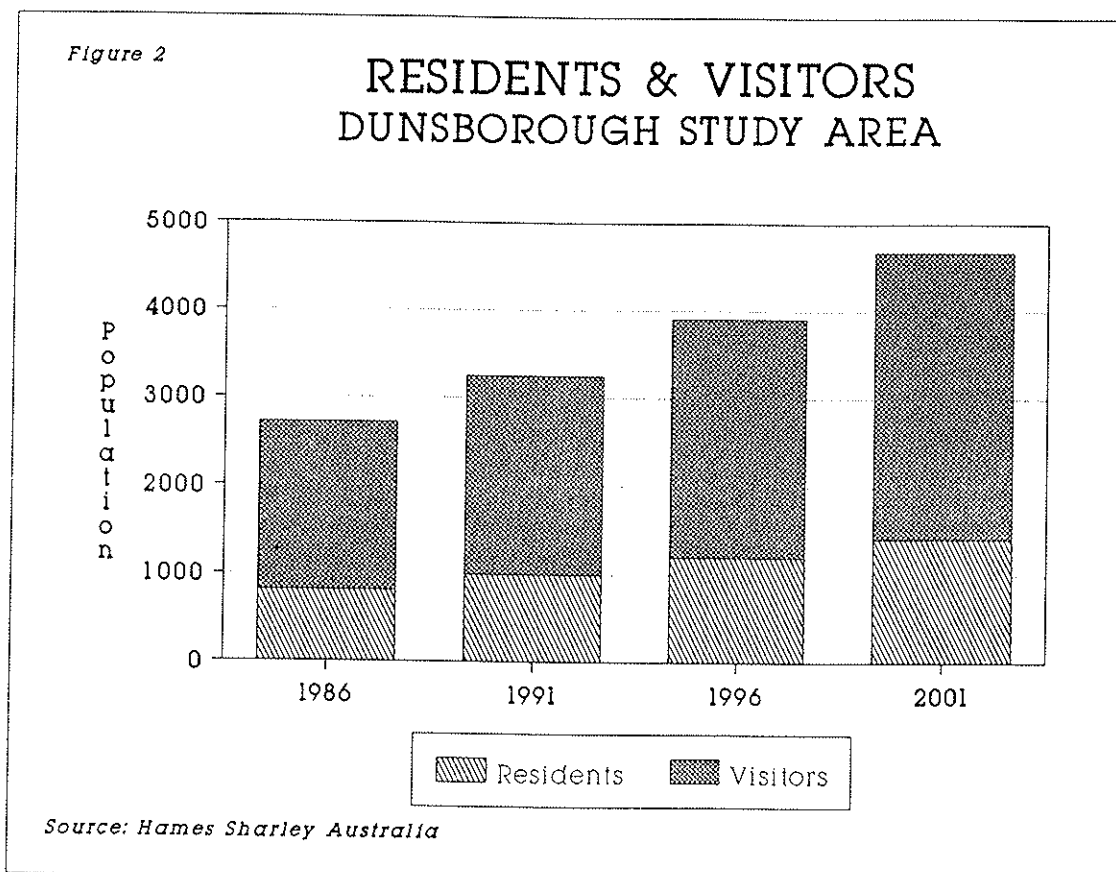


Source: State Planning Commission

(It is noted that a 1988 study by Planning Collaborative Australia Pty Ltd (Ref 4), provided more optimistic projections for Dunsborough largely by assuming that some of the growth that would otherwise have taken place in Busselton will be directed to Dunsborough on account of its proximity to Busselton and its rural ambience.)

Given the impact of tourism it is important to estimate the growth in visitor population. Hames Sharley (Ref 3) estimated that around 30% of the population were non-resident at the 1986 Census. However the analysis also demonstrated that as 51% of the private dwellings in Dunsborough were unoccupied, much of the potential tourist accommodation was not in use. In addition the caravan park was only at 25% capacity at the Census.

Taking account of the visitors resident on Census night, and the potential for visitors to occupy houses and caravans vacant on Census night, the peak population of Dunsborough itself was estimated to amount to treble the resident population. These estimates are graphed in Figure 2.



The total population, residents plus visitors, from this graph is projected to amount to 4675 by 2001. While this figure would assume full occupancy of accommodation and should therefore be regarded as a 'peak' figure, it should be pointed out that real peak holiday periods are characterised by many people doubling up in accommodation, sleeping in tents, cars, boats and on the beach. It would be ignoring reality not to make this fact explicit and thereby caution that the projections are likely to be conservative of the population likely to use Dunsborough's facilities in peak holiday periods. Moreover, the projections by their very nature take no account of the impact of large development projects which in a relatively small place such as Dunsborough, could have a large impact.

Over and above the peak Dunsborough 2001 population figure of 4675 must be added the growth of that area which would look to Dunsborough for the supply of services. At the 1986 Census the population of Dunsborough was only 38% of the population of the whole of Dunsborough Region. Even applying a more modest visitor component than applied for Dunsborough itself to this regional population it is reasonable to project a peak period population for the Region exceeding 10,000.

### 7.3.2 Demographic Structure

The age structure of the population at the 1986 Census demonstrated that there was a bias amongst those aged 5-14 and those aged 30-39 (presumably their parents). This age bias may reflect in part the propensity of family groups to focus on Dunsborough but is more the result of the post war baby boom (the 1981 bias was 5 years younger). While this is a characteristic throughout Australia the picture for the Dunsborough Region is somewhat exaggerated. The 221 enrolments at the primary school suggests that a significant proportion of the young residents are permanent.

Dunsborough is also characterised by its over representation of over 60 age groups. This representation is significantly higher than for the State as a whole suggesting that Dunsborough is a popular retirement centre.

It is clear that, despite the seasonal impact of the tourism industry on the townsite, a stable, permanent population lives at Dunsborough, arguing for a full range of community and civic facilities.

## 7.4 Housing And Other Accommodation

Historically, accommodation was confined to relatively low cost beach cottages. The overall planning of old Dunsborough and parts of Quindalup approximately 25 years ago resulted in the creation of a large number of unsewered residential lots ranging in size from 800m<sup>2</sup> to 1100m<sup>2</sup>. The majority of these lots have now been developed for residential purposes. The latest Census reflects this history with dwellings being reported to be predominantly detached. At the 1986 Census only 2% of occupied dwellings were semi-detached, 2% medium density, and 3% not stated.

As the town gained popularity as a retirement and holiday area, investment in housing stock increased as did land prices. Old Dunsborough began to display the characteristics of a permanent settlement as facilities to support the local residents were established and standard suburban houses were constructed. 83 hectares is currently zoned Residential or already identified for Residential development in the study area. The demand for low cost short stay accommodation was met by a caravan park and chalets at Greenacres and at the White Sands Caravan Park at Quindalup.

Table 2 plots the growth in the stock of dwellings in both the Dunsborough Region and the study area over recent years. Although the rate of growth as shown by the ABS statistics would appear to have slowed in the past two years the growth in dwelling stock as a proportion of existing dwelling stock has been at nearly twice the rate in Dunsborough and its Region as in the balance of the Busselton Shire. Moreover, more recent building approval statistics from the Shire of Busselton indicates that approvals in 1987 and 1988 for single dwellings have been at record levels (60 and 73 for the respective years).

**Table 2 - Growth In Dwelling Stock**

	1981(JUN)	1986(JUN)	1988(SEPT)
Dunsborough Study Area	534*	703	758
building rate	34pa	24pa	
Balance of Dunsborough Region	420*	662	740
building rate	48pa	30pa	
Total Dunsborough Region	954	1365	1498

\* adjusted to take account of CCD boundary changes.

Source: ABS

As demonstrated in the above table, there has been a consistent net increase to the dwelling stock averaging about 30 dwellings per year over the past decade.

According to the Dunsborough Real Estate's survey (Ref 5) undertaken in February 1989 there are 141 vacant blocks in Dunsborough/ Quindalup but only 9 of these are for sale. It would appear that either there remains a speculative element which would explain the holding of land while land values increase or there are special circumstances which justify a larger land bank. Certainly there would be a number of lot owners who purchase with a long term aim of building for retirement or for a longer term holiday home. In any event, whether it be speculation or the result of long range plans of lot owners, there would appear to be a need in Dunsborough to provide a larger buffer of vacant lots than one would expect in a normal urban situation.

Tourist accommodation has to a significant extent been supplied in the study area by the renting of detached houses. This means of catering for demand appears to be likely to be accommodated through normal land releases for residential development. However, chalet and camping areas require special consideration in view of the increased land prices resulting in coastal land being converted to normal residential or more expensive chalet development.

In view of the economic significance of tourism to the study area and the fact that visitors more than match permanent residents particularly in holiday periods, there is a need to closely consider the accommodation needs of tourists

## **7.5 Economic Structure**

Dunsborough's economy is increasingly being orientated towards tourist and related industries. Fishing remains of some significance but Geographe Bay is considered by the Fisheries Department to be fished to capacity. Dunsborough provides limited support services to surrounding agricultural areas, an important although declining section of the local economy. Agricultural income in the Busselton LGA is increasing at a slower rate in comparison to the South West region and the State.

Dunsborough has a small light industry/commercial sector that contains 18 establishments, all with floorspace under 500m<sup>2</sup>. These industries produce and supply water based recreation equipment, service the town's automotive/small motor needs, service the boating needs of the area and to some extent building needs. A majority of the lots in this industrial area are taken up and there appears to be an increasing demand for a new light industrial area.

Home based craft industries are also becoming important in the general area and is likely to expand further especially by using local timber materials.

The economy of Dunsborough was biased at the 1986 Census towards the provision of services reflecting the increasing importance of tourism in the local economy. Within the Vasse Region during the 1984/85 season, the total value of tourist expenditure was \$47.38m. This compares with a value of \$42.51m for total agricultural production. This comparison indicated the dominance of tourism as a generator of income in the Vasse Region, within which Dunsborough is the principle tourist destination.

Dunsborough's tourist accommodation currently comprises a 130 bay caravan park, 102 hotel/chalet units and a 66 bed Youth Hostel. A further 33 units are proposed as extensions to existing developments.

Analysis of the type of accommodation used by tourists visiting the Vasse Region by the WA Tourism Commission (1986) indicates a preference for low-key/budget accommodation. Only 13% stayed in hotels/guest houses, compared to 30% in caravan parks and 20% in rented chalets, flats or cabins.

Data from the WA Tourism Commission 1980-1988 on the numbers staying in tourist accommodation in the Shire of Busselton confirms the consistent growth in tourism over the past decade

(growing at 6% pa) and confirms the extreme seasonality of tourism with guest arrivals in January and February running at four times that of winter months. This seasonality of tourist activity may act as a constraint in the establishment of a high cost tourist resort in the area. The development of a self-contained resort offering a wide variety of activities may generate its own demand and aid in the establishment of a more evenly distributed demand for tourist facilities and services.

The Dunsborough townsite has a shopping complex containing 24 shops and 7 offices. These include convenience shops, clothing/sporting goods outlets, a hardware shop, bank agencies, a liquor shop, real estate agent and a number of professional offices. Recently the 14 shop Naturaliste Forum has opened providing a 1000m<sup>2</sup> supermarket, a doctor's surgery and chemist, post office and a range of speciality shops, many orientated towards tourism. A small commercial area, located in Old Dunsborough adjacent to the Country Club, contains five commercial buildings with two established uses, (a bakery and art gallery). A small convenience goods shop and fuel outlet is located near Dunsborough beach.

## **7.6 Service Inventory**

### **7.6.1 Education**

The Dunsborough Primary School is the only educational establishment in the study area. In the past five years, enrolments have nearly doubled with the most dramatic growth being in the last twelve months. The 1989 enrolment figures are 53 pre-primary and 168 primary, compared with 30 pre-primary and 138 primary in 1988.

The school site is 4 hectares of which approximately 2 hectares is committed for a sports oval and classrooms. The existing facilities are adequate to accommodate growth beyond the year 2000.

There are currently 80 high school students living in Dunsborough who commute to the Busselton Senior High School. The Ministry of Education has advised that a population to support a junior or senior high school in the district is unlikely until well into the next century.

The school headmaster has advised that there are no higher education or adult classes conducted at the school.

### **7.6.2 Transport And Communications**

Dunsborough is serviced by Westrail on a daily basis (Perth and return), has a one car taxi service and a private bus company (South West Coach Lines) which began a local service between Dunsborough and Busselton in July 1988. The private company has discontinued the local service due to lack of patronage on a year round basis, but expects to reintroduce the service over the next summer holiday period.

### **7.6.3 Recreation/leisure**

The main recreation facilities in Dunsborough relate to the beaches, particularly Meelup, Dunsborough, Dunn Bay and Quindalup, the wider attractions such as the Leeuwin Naturaliste National Park, Yallingup Caves, Banamah Wildlife Park and the wineries.

A survey of 8 Shire of Busselton beaches undertaken in 1986 (Ref 6) indicated that beaches received year-round usage for passive recreation, particularly those close to built up areas. At Dunsborough beach "family unity" was considered more important than at others while at Quindalup and Eagle Bay "isolation" was of primary importance. Those surveyed believed the greatest development need was for shade trees and for toilets at Quindalup. Other development suggested was barbeques, picnic facilities and additional parking. A few preferred no development. Other works agreed to included stabilizing the embankment at Dunsborough Beach and re-establishing vegetation at Quindalup.

There are currently three boat ramps in the study area, none of which are serviceable in all weather conditions.

The Dunsborough and Districts Country Club, with a membership of 700, provides a major private recreation resource through two bowling greens, an eighteen hole golf course, two tennis courts and clubrooms which have bar and food preparation facilities and a large function area.

The Dunsborough Primary School oval is the only active recreation ground in the area and is used for junior and senior sports. The dimensions of the ground are approximately 80m x 100m which is below senior cricket standards (68 metre radius from centre of pitch) and senior Australian rules football (135m x 110m minimum). The oval is extensively used and is inadequate for some senior sports.

#### **7.6.4 Health**

The area is serviced by four medical practitioners, 3 of which operate on a full time basis, a chemist, silver chain nurses, a mobile private counsellor (funded by the Department of Community Services) which is based in Margaret River, a dentist which operates 1 day per week and a physiotherapist which operates 1 days per week.

#### **7.6.5 Childcare**

Dunsborough is serviced by an infant care nurse once fortnightly from the ambulance building in the shopping centre. Immunization is carried out by the Public Health Department via a caravan at the Dunsborough Hall on average every two months.

There are two play groups operating in Dunsborough from the Dunsborough Hall and the CWA hall. A further group has established in the Yallingup hall.

The Dunsborough Primary School accepts pre-pre-primary students (4 year olds) two afternoons a week.

There is one park (outside of the primary school) with play equipment in the study area which is located at the beach end of Dunn Bay Road. A limited facility exists at the Dunsborough boat ramp and parents have provided some equipment at the CWA hall.

#### **7.6.6 Emergency Services**

The Dunsborough Region is currently serviced by a volunteer fire brigade (next to Council's works depot), a sub station of the St John's Ambulance (in the shopping centre) and a part time police presence during holiday periods. In the 1988/89 Christmas holiday period three police officers were stationed in Dunsborough using temporary accommodation at Greenacres Caravan Park and a vacant shop in the shopping centre. A volunteer sea rescue group provides an all year service to the boating public.

#### **7.6.7 Public Halls, Clubs and Institutional Buildings**

The Dunsborough Hall which is located on the corner of Gibney Street and Gifford Road, forms part of a community node along with the Dunsborough and Districts Country Club, the Dunsborough Primary School, sporting facilities, the Dunsborough Art Society storage shed, three churches and a small commercial area in Gifford Road.

The Dunsborough Hall is extensively used with groups such as Lions, the art society, the Dunsborough Progress Association, markets, Parents and Citizens; and activities such as aerobics, yoga, carpet bowls, play groups, church services and school concerts. Bookings for the facility are seven days a week most evenings throughout the year.

The Country Womens Association has a small building adjoining Council's depot in Naturaliste Terrace. This building, along with the volunteer fire brigade shed and the depot, do not represent a large capital investment and are located on Crown land.

The Quindalup Youth Hostel has recently been extensively renovated and now can accommodate 66 persons. The facility is well sited on the coast and provides a link with the past with the preservation of part of the old Quindalup school.

The Busselton Shire Council has provided a toilet and changeroom facility at Dunsborough beach and toilets in the shopping centre and at the Dunn Bay Road beach area.

## 7.7 Summary of Needs

The most significant findings from the previous research are:

- In round figures, within the plan period (to the year 2001) there will be a need to provide sufficient land to accommodate up to 5,000 people, a third of whom will be permanents and the rest will require accommodation more suited to tourists, weekenders and holiday makers.
- The estimated peak number of persons within the Dunsborough Region (i.e. beyond and including the town) will be at least 10,000 in the plan period.
- There is a bias amongst those aged 5-14 and those aged 30-39 as well as those aged over 60 years.
- There appears to be a disparity between the type of accommodation sought and its availability. This disparity could become acute in the future should projected growth trends be attained suggesting provisions of low budget accommodation facilities.
- While it may be prudent to retain land around the shopping centre for long term expansion of commercial facilities, no such requirement can be justified from projected retail expenditure in the medium term.
- The majority of lots in the light industrial area have been developed and there appears to be an increasing demand for a new light industrial area.
- The principle component of the economic base of Dunsborough is tourism, recreation and construction with minor contributions from agriculture, fishing and manufacturing.
- The existing boat ramps in the region are not serviceable in all weather conditions.
- The beaches and coastal reserves are the most important natural resources in the area and are the principal attraction for tourists.
- Emergency services are in need of upgrading particularly fire fighting facilities and police.
- The Dunsborough hall has reached a level of maximum use.
- The Dunsborough Primary School oval is heavily used for junior and senior sports.
- There are limited child care facilities in the Dunsborough Region.
- There are no constraints to the extension or expansion of utility services in the study area.
- There is approximately 83 hectares of land which is zoned "Residential" or has been identified for residential development within the urban areas east of Seymour Street and Caves Road and; 141 vacant lots exist within Dunsborough and Quindalup.
- Crown reserves in the study area are vital to the future of the town as they are the key to the provision of community services and facilities and the conservation and management of the major attractions of the area.

These findings will direct the major components of the Plan. Accordingly the Plan needs to address accommodation requirements, social and public facilities, commercial land requirements and tourist facilities.

## 7.8 Planning for the Needs

### 7.8.1 Residential Land Requirements

The estimates of growth for the town and region requires a response to establish the future direction of growth in the town and the availability of land to meet projected demand. Three areas have been identified as future development areas.

(i) The area generally bounded by Seymour Street (west), Gifford Road (east), the Meelup Reserve (north) and Greenacres Road (south). Of the 83ha of unsubdivided land which is identified in the Shire of Busselton Town Planning Scheme No. 5 as "Residential Development" or is zoned "Residential" 62ha is located in this area. This has the potential to produce at least 500 normal residential lots or considerably more in a variety of medium density developments.

(ii) Infilling within the study area is likely to be prompted by increased land prices and holding costs. 21 hectares of zoned but undeveloped land in Dunsborough and Quindalup, including 141 currently vacant lots are likely to be gradually developed and a portion of those with duplex potential will be developed.

On past building rates these two areas could meet demand for 15 years.

While the land already earmarked for residential development would appear sufficient to cater for demand over the Plan period, the following factors suggest that the use of past building rates to project future requirements may be too conservative.

- There has been a recent upsurge in interest in the area, demonstrated by dramatically increased land prices.
- The policy enunciated in the Leeuwin-Naturaliste Region Plan is to focus development and services in Dunsborough.
- A proportion of lots are likely to remain undeveloped for a number of years due to owners having longer term plans to build holiday cottages or retirement homes.
- In a rapidly growing area there is a need to provide a larger land bank of residential lots than would normally be required to avoid price escalation in periods of rapid lot sales.
- In a relatively small community the number of owners of subdividable land is limited and it is therefore desirable to ensure that one landowner's unwillingness to develop does not have a detrimental impact on town development or land prices.

In view of the above, two further areas to have been identified as future development areas. Together these areas have the capacity to provide for the needs of the future community well beyond the Plan period and accordingly the careful staging of development is urged. Moreover, the bank of land provided would afford the opportunity to develop a range of housing styles and densities in pursuit of the need to provide a holiday atmosphere while protecting the natural environment (See 7.8.2).

(iii) The area immediately west of Seymour Street, east of the highlands, north of Caves Road and south of a line west of the Dunsborough rubbish tip. There is approximately 50ha of land in this area which has the potential to produce 450 normal sized residential lots.

(iv) The area south of Caves Road, east of Biddle Road Special Rural Area.

### 7.8.2 Tourist Accommodation Requirements

Much of the future holiday accommodation will be provided from the subdivision of land identified in Section 7.8.1. However, in view of as much as two thirds of this accommodation being used by tourists, weekenders and part-time residents, their particular needs should be considered in the design of

future subdivisions. Small lots, medium density units or cluster development would be eminently suited to many of the users of accommodation in Dunsborough. The objective should be to create a different, holiday setting in the natural environment and for people to recreate in an environment created by creeks, pasture land and woods rather than in their back garden. Accordingly the emphasis should be placed in the statutory planning scheme on permitting development which achieves the protection or utilization of vegetation and landscape and creates a particular holiday environment rather than the emphasis being directed at density control.

A particular need is to create accommodation facilities for low budget holiday markers. It is possible that some of the existing prime locations which cater for this sector of the community could be converted to more exclusive tourist uses in future years. Accordingly sufficient land should be earmarked for budget accommodation and ideally this land should be in Crown ownership, and remain so, to secure its long term availability. The Quindalup Reserve was considered during the study but this reserve is distant from facilities and would be better utilized in support of an improved boat launching facility.

Reserve 15493 on Naturaliste Terrace, while little over a hectare in extent, is well sited and attractive for the development of an overflow tent camping facility. Indeed the land is reserved for this purpose. Land in the vicinity is also favoured for short stay accommodation (chalets) linking to a linear pathway along the creek to the beaches and being equidistant between Old Dunsborough and the town centre.

A major asset for the development of low budget accommodation exists in the quarry pits and rubbish tip in Meelup Reserve north of the water tank. This land requires rehabilitation and stabilization but would provide an attractive site for caravan and tent camping. The land is well located as a base for those using the beaches and landward assets throughout the Cape. The land also affords panoramic views of the Naturaliste Ridge and Geographe Bay with the opportunity to provide walking trails through Meelup Reserve to Curtis Bay. While the area affected by clearing, quarrying and rubbish disposal is in excess of 50ha, a 20ha area should be earmarked for camping/caravan sites in a woodland environment with the whole cleared area being replanted.

The Region Plan specifically identified Curtis Bay as a location for facilities for professional fishermen and recreational users to include backup services, a boat ramp and a service jetty. The main concern of the structure plan has been to ensure that any such facilities would relate to land based facilities. In this regard an area to the east of Meelup Reserve has also been cleared and quarried. This should also be revegetated and a portion (6ha) be made available on a leasehold basis for a resort complex to cater for a more exclusive market while facilitating the provision of reserve management, car parking and a boat launching facility in Curtis Bay.

### **7.8.3 Community Facilities**

Rapid growth in enrolments at the Dunsborough Primary School and the increase in permanent residents support the bias shown in the age structures. Whilst there is still an above average elderly population in Dunsborough, it is apparent that the population is becoming much younger. It is also apparent that families are staying in the area as evidenced by the increasing number of high school students commuting from Dunsborough which are graduates from the Dunsborough Primary School. With high school students, there is approximately 300 children and youth in the area.

It is likely that Dunsborough will continue to be an attractive retirement centre due to the pleasant natural environment and the range of services available for the elderly. The cost of land and houses in Dunsborough may however prevent many from establishing in the area. Factors which could contribute to the elderly leaving the area are the large size of residential lots which become difficult to maintain and rising rates and charges.

The needs generated by projected changes in, or maintenance of, the demographic structure of Dunsborough are expected in the following areas:

- (i) infant health, day care, play groups, play grounds;
- (ii) senior sport and indoor recreation;
- (iii) youth activities;

- (iv) family counselling;
- (v) higher education and adult classes; and
- (vi) aged persons accommodation.

With the exception of active sportsgrounds and playgrounds and aged persons accommodation, the above needs could be met through the establishment of a community centre. Proposals for such a centre have already been canvassed by Council and local residents (Ref 7).

As the majority of community facilities are located around the Dunsborough and Districts Country Club, it would be an advantage to consolidate the area as a community focus rather than fragment it.

With a minor change to the 9th hole of the golf course an area in excess of 1 hectare of Crown land between the Country Club and art society shed could be created. This is considered more than adequate to accommodate buildings and parking. The advantages of this site compared with an alternative proposal opposite Council's depot in Naturaliste Terrace are:

- (i) lower site development costs;
- (ii) reciprocal use of facilities such as parking, access roads, cycleways and footpaths, lighting and transport of people and goods; and
- (iii) a strengthening of the area as a focus for community activities.

Following the assessment of public submissions, this site is not supported. An alternative site west of Seymour Street and in close proximity to the town centre is considered more appropriate.

It will be difficult to cater for the needs of senior sporting groups in the short term due to the high cost of developing an oval and ancillary uses. However, in the short term, upgrading of the Dunsborough Primary School oval as a joint project between community groups, Council, the Ministry of Education and the Department for Sport and Recreation should be investigated. Land for a sportsground and cash-in-lieu of land may be acquired by Council and the State Planning Commission as a condition of future subdivision approvals. The Department for Sport and Recreation supports this strategy to meet future needs.

A number of opportunities are available to establish medium density developments and smaller lot sizes with the advent of deep sewerage in Old Dunsborough particularly. Although these higher density developments will provide a greater choice of living environments for aged persons, it is considered necessary to identify an area in close proximity to community services for aged persons accommodation. Such an area which is in Crown ownership, adjoins the northern boundary of the primary school.

#### **7.8.4 Commercial and Industrial Land**

There is sufficient retail floorspace and vacant land adjacent to the shopping centre to meet the shopping needs of local and visiting populations well into the next century.

There is sufficient land zoned "Commercial" in the Old Dunsborough area to meet foreseeable demand.

The expansion of the existing light industrial area is not appropriate due to the likely conflicts with adjoining land uses. As the industrial area is nearly fully developed an alternative site is needed.

Criteria for selecting an alternative site include:

- (i) proximity to residential and community uses;
- (ii) accessibility;
- (iii) natural buffers;
- (iv) pollution potential - groundwater and atmospheric;
- (v) expansion potential; and
- (vi) soils and landform.

A site opposite the sewage treatment ponds on Commonage Road satisfies the above selection criteria.

#### 7.8.5. Tourist And Recreation Facilities

(i) A survey of the Shire of Busselton coast, undertaken in 1986 (Ref 6), estimated that 62% of peoples' preferred recreation activities were water or coastline based. Other settings included bushland and tourist attractions. The most favoured activities were swimming, boating, fishing, walking along the coast and sightseeing. Others included sunbathing, picnicking and observing flora and fauna. The most important experiences people sought were "family unity", "getting away from it all" and "enjoying nature".

The things people most enjoyed about the sites they use for recreation were primarily natural characteristics, while facilities were generally seen as detracting from the natural beauty. There is clearly a need to maintain the coastline in as close to natural state as feasible and to design any development to a high aesthetic standard. It is also preferable to develop sites to varying degrees, depending on the character of the setting and the type of experiences people are seeking. As the coast is near to built up areas, walking and cycling need to be provided for.

There is a need to plan for what appears to be inevitable increases in recreational demands in future years and for the tourist season to lengthen and the choice of activities to widen. Emphasis should be placed on the coastline, with attention given to protecting coastal vegetation, providing shade areas, parking, and toilets where needed. Defined activity areas are needed in places where different users conflict (e.g. skiers, swimmers). Other improvements could include bicycle and walk paths, better directional signs, and educational information board. An all-weather boat ramp is needed.

The conclusions are that Dunsborough is largely a tourist and service centre, and thereby heavily reliant on a highly seasonal tourism industry.

The implications of this are that the environmental amenity of the town and the area around which creates the tourist attraction should be protected, that non-seasonal tourist attractions be encouraged and caravan parks and low key villa/chalet projects and other tourist facilities be encouraged.

#### (ii) Boating Facilities

Three boat launching facilities are located in the study area, at Dunsborough, central Quindalup and at the east end of Quindalup. Current usage of these ramps as estimated by the Department of Marine and Harbours is:

Location	Peak	Other	Size
Quindalup (east)	50/day	15/day	3-8 metres
Quindalup (central)	10/day	3/day	3-4 metres
Dunsborough	35/day	12/day	3-5 metres

Source: Department of Marine and Harbours

There are 920 registered power boats in the Busselton Shire of which 150 are located in Dunsborough. This is significantly higher than the State average ownership of 45 boats per thousand persons and the South West average of 87 boats per thousand persons. (P.A. Australia 1981 Ref 8.) In peak holiday periods it is estimated that as many as 400 power boats are seeking to use facilities or the beaches in the study area.

Clearly, the existing launching facilities are overloaded with current peak demand.

Other types of craft using the beaches and coastal waters are surf cats, sail boards, canoes, yachts and professional fishing boats. There is potential for conflict between these uses and recreation power boat users.

Professional fishing is concentrated in the categories of rock lobster and abalone, wetlining (shark fishing), bait fishing and to a lesser extent salmon and scallops. The Department of Fisheries has stated that there is no potential for expansion of the inshore fisheries, however potential exists to further exploit the deep sea fisheries. Between 2 and 5 professional fishing boats operate in the area, depending on the season. The major need of the local fishing industry (given that berthing facilities may be available in East Busselton), is a fuel outlet.

Sea rescue will become increasingly important as boat numbers rise. Some protection would facilitate rescue operations.

A growing number of cruiser class yachts are now travelling to the Quindalup area from Perth and Bunbury over the summer holiday period. Approximately 80 yachts were in the area in the 1988/89 season. As Rottnest becomes less attractive as a destination these numbers are expected to continue to increase. Advice from boat owners is that a service jetty with a fuel, water and sullage disposal facilities would be adequate to meet their needs.

The proposal to establish a boat harbour at East Busselton will cater for local and visiting craft including fishing boats with mooring facilities for 500 craft and at least four public boat ramps. This facility, if constructed will provide a much needed year-round refuge for boats in the Geographe Bay area as well as a place to obtain fuel, water, dispose of waste and have repairs undertaken. However, it must be acknowledged that the principle activity of the boating public is recreational fishing and the best fishing grounds are north of Cape Naturaliste at Wights Bank and the Naturaliste Reef. Hence, those owners with boats up to 8 metres in length (the maximum that a car can tow safely) which are based in Busselton are likely to tow their boats as close as possible to the fishing areas.

The Department of Marine and Harbours do not believe that facilities will be adequate to serve future demand, (within the study period) even if the East Busselton harbour does go ahead. As outlined above, a greater demand than is currently forecast for launching facilities in Dunsborough, could occur if the harbour development proceeds.

The options to meet future demand are limited to improving the east Quindalup facility and/or providing a new facility. The Dunsborough ramp cannot expand due to the lack of land for parking and the central Quindalup ramp is becoming shallower due to sand accretion. The Department of Marine and Harbours has advised that the east Quindalup ramp could service 3-4 times current usage (i.e. 150-200 boats/day) if parking was available. An opportunity exists to provide such parking in a Crown reserve opposite the ramp. This improvement is however regarded as a short term solution as demand for facilities will quickly outstrip supply in the future.

Curtis Bay has been identified in the Leeuwin-Naturaliste Region Plan Stage 1 as having the potential for harbour-related development. The key strategies in the document provide for:

- establishment of a boat harbour with recreational boating facilities and, if feasible, facilities for professional fishermen;
- a boat ramp and service jetty to relieve present congestion between boats and swimmers at Dunsborough;
- harbour-related tourist and recreation accommodation and provision of associated commercial facilities.

The Region Plan also recognized the importance of conserving the Meelup Reserve, physical constraints of the site (e.g. depth of water) and, the environmental consequences of changes to the coast (e.g. sand by-passing, erosion, loss of natural areas).

From the analysis undertaken, there is a need to plan for an additional facility with:

- a service jetty;
- 4-6 launching ramps;
- fuelling, water supply and sullage disposal facility;
- parking and toilet facilities.

While in the short term, the east Quindalup launching facility should be upgraded to expand the parking area a facility at Curtis Bay can be justified in terms of demand within the Plan period.

The Country Planning Council recommends that:

- (a) the State Government instigate the necessary engineering and environmental investigations to establish the feasibility of developing a safe anchorage at Curtis Bay and;
- (b) Toby's inlet be investigated to establish whether the inland waterway could be upgraded to serve as a safe anchorage. (Although not recommended, investigations should include an economic analysis.)

#### **7.8.6 Emergency Services and Government Offices**

(i) The St John's Ambulance facility in the shopping centre is sufficiently well equipped and staffed to meet future needs. Facilities for "Police" and "Fire" however, are in immediate need of upgrading.

(ii) The Police Department is seeking to establish a police complex in the area to ensure that 2 permanent officers can be accommodated as well as additional officers over holiday periods. The need for the facility is in the areas of traffic control, crowd control, stealing and use of illegal drugs. Problems in these areas have increased with the opening of the Naturaliste Resort Hotel, increased patronage at Caves House hotel, greater year-round visitors to the region and a sharp increase in visitors over holiday periods. In the 1987/88 holiday period two officers recorded 1000 hours of overtime and in the 1988/89 period three officers recorded over 500 hours of overtime. The land requirement for the complex is 3-4000m<sup>2</sup> which would accommodate offices, a house and a yard for vehicles.

(iii) The fire fighting facilities in the Dunsborough region are summarized as:

- (a) Cape Naturaliste - two light duty 4x4 units;
- (b) Yallingup - one light duty 4x4 unit;
- (c) Yallingup rural - one light duty 4x4 unit;
- (d) Dunsborough - one light duty 4x4 unit \*  
- one medium duty 4x4 unit \*\*

\* Light Duty = 800 litre capacity.

\*\* Medium Duty = 1600 litre capacity.

The Bush Fires Board advises that the rural areas of the region are currently well serviced however, problems are being experienced with enlisting enough volunteers.

The service available for the Dunsborough and Quindalup urban area is well below acceptable

standards. The fire fighting units in the town are equipped for bush fires, not residential, commercial or industrial fires. Further, the urban areas have not been planned so as to provide strategic water points specifically for fire fighting. It is the view of the Bush Fires Board that there should be a town brigade which is under the control of the WA Fire Brigade Board.

The shed used by the existing Dunsborough brigade will not be adequate to meet future needs. The land requirement to accommodate at least an urban medium duty unit (equipped with foam) and light duty units would be 1-2000m<sup>2</sup>.

(iv) Within the plan period, it is expected that there will be a demand from various Government agencies to establish in the area. Possible users of an office complex are the Department of Marine and Harbours, the WA Water Authority, Department of Community Services, the Department of Conservation and Land Management, Australia Post and the Tourism Commission. A land area of approximately 4000m<sup>2</sup> would provide sufficient area for future needs.

The combined future area requirement of the above uses is approximately 1 hectare. The criteria by which land should be selected and allocated to these uses include:

- (a) accessibility - ingress, egress, proximity to major arterial roads, central to service area;
- (b) visibility - people clearly know where facilities are;
- (c) reciprocal use of facilities - access, parking, lighting, security, communications;
- (d) compatibility with adjoining uses.

The existing location of the fire brigade shed and the proposed location of a police complex on Crown land adjoining Council's depot are not considered appropriate sites when the above selection criteria are used. The Crown land, which adjoins existing and future residential areas, would be better utilized for residential purposes. Part or whole of the Crown land should be exchanged for a 1 hectare site north of Dunn Bay Road and west of the service station.

## 8. STRUCTURE PLAN AND POLICY AREAS

### 8.1 *The structure plan is shown on Plan 9.*

The major components of the plan have already been foreshadowed earlier in this report, particularly in Chapter 7. Further explanation of what should be allowed within the policy areas which overlay the structure plan is given in the policy area statements in Section 8.3 below.

### 8.2 *The main features of the structure plan can be summarized as:*

- future uses being dictated by the landform and vegetation;
- a road and pedestrian/cyclepath network which increases the segregation between motorists and pedestrians;
- a community centre being located west of Seymour Street and close to the town centre;
- a 2ha area near the community centre for aged persons accommodation;
- public, commercial and Government facilities being consolidated at the commercial centre;
- the Meelup Reserve being better managed with cleared/ quarried areas being replanted and partially developed. The extent of any development will be dependent upon the result of any marina investigation, however, development should not occur on area 1A, development should ensure that tourist accommodation will be adequate to enable the town to continue to develop economically as an important tourist centre;
- a boating facility at Curtis Bay with car parking provided out of view of the coastal walking trail;
- Possible development of a marina subject to further engineering, environmental and viability studies;
- facilities to support the Quindalup boat ramp;
- additional areas for short stay accommodation between Naturaliste Terrace and Seymour Street, together with existing areas so zoned amount to 26ha.
- the provision of ample land to match the differing requirements of a range of full-time and part-time residents and tourists;
- areas for short to medium term residential development; from increased duplex development in seweraged areas, from infill within existing residential zones, from the developments of land zoned residential east of Seymour Street (30ha), from rural zoned land in the residential development area or infill (53ha), and from the first stage of development south of Caves Road (20ha);
- areas for longer term residential development, from land west of Seymour Street (50ha), and from land south of Caves Road (40ha);
- areas for revegetation and areas where views should not be impaired;
- emphasis is given to providing new residential development which is more suited to weekenders and tourists than that offered by standard residential development;
- a new industrial area has been identified off Commonage Road; and
- land beyond the residential cells may be appropriate for rural living but should be planned in the context of the rural strategy being prepared by the Shire of Busselton.

## 8.3 Policy Areas

Policies have been prepared for the land units described in Chapter 4. These policies provide guidance for developers, public authorities and the community in considering the way in which each policy area should be developed and how they should be staged.

### *General Statements Applying to All Areas*

The character of Dunsborough and Quindalup owes much to its attractive coastline with sheltered inlets, its vegetated and rugged backdrop and its stands of trees within the developed areas. These assets require protection both to preserve the amenity of residents and to ensure that the attraction of the area to tourists is enhanced.

#### *Policies*

1. Indigenous vegetation should be protected and incorporated into development.
2. Development should use colours and materials compatible with the woodland and coastal environment.
3. Development should not exceed two storeys.
4. Development which results in the protection of vegetation, minimises impact on views while maximising the opportunity of occupants to enjoy the environment should be encouraged.
5. A theme should be developed for consistent signage to direct tourists to major attractions and community facilities.
6. A master drainage plan should be prepared for the expanded townsite.
7. Seymour Street should be constructed as a priority. This could be advanced by the declaring of the road a Tourist road and appropriate funding being sought.
8. Development adjacent to Seymour Street and Naturaliste Terrace should retain a 10m vegetation buffer.

## **1. Meelup Reserve**

### **Area 1A**

This reserve is relatively undeveloped with coastal heath and shrubland near the coastline giving way to eucalypt woodland on higher land. It is known that there is a rare species of one sided bottlebrush endemic to the Meelup Reserve.

#### *Policies*

- 1.1 Proclaim as an A Class Reserve for Conservation and Recreation.
- 1.2 Develop a comprehensive management plan including a walk trail network, plans for specific beaches, vehicular access rationalization, fire and dieback management.

### **Area 1B**

Much of the natural character of this area has been prejudiced by clearing for gravel pits, rubbish tip and a golf course. Scattered stands of trees and bushland remnants occur throughout the area and higher areas afford good views of the coast.

### *Policies*

- 1.1 Revegetate gravel pits.
- 1.2 Stabilise rubbish site.
- 1.3 Retain Crown ownership.
- 1.4 The eastern portion could be developed with a resort complex providing car parking and beach access, in the event of a boat launching facility at Curtis Bay. The resort should be built on public land to ensure that units were available to the public and strata titling prohibited.
- 1.5 A boating facility will be required in the Plan period the environmental impact of which should be assessed through an Environmental Review and Management Programme.
- 1.6 Development should not intrude on views from the coastal walkway.
- 1.7 Land owned by the Crown on Turner Street should be developed to accommodate aged persons accommodation. Development of some of the land for short stay accommodation could be appropriate, possibly in association with the adjacent resort complex.
- 1.8 The westerly gravel pits provide an opportunity for short stay accommodation. Preferably tent camping and caravan bays on stabilised sites. The priority should be to create a shady setting through replanting for cheaper holiday accommodation. Management of the adjacent Meelup Reserve should control access.
- 1.9 Lease agreements between the Crown, the Shire of Busselton and future resort and caravan park operators should specify replanting requirements and provide funds for the management of the wider Meelup Reserve.
- 1.10 The Country Club should expand over the existing Dunsborough hall site to allow the development of an additional bowling green.
- 1.11 Development of land in Area 1B should not impact on views from the townsite.
- 1.12 The development of an environmental education facility in the western area would be appropriate.

## **2. Old Dunsborough**

This area is characterised by established residential development on urban allotments in a well-wooded environment offering views over Geographe Bay.

### *Policies*

- 2.1 Infill to be encouraged.
- 2.2 Protection of existing vegetation within urban setting.
- 2.3 Negotiations between the Ministry of Education, the community, the Department for Sport and Recreation and Council to develop the school oval into a senior sports oval for an interim period should be initiated.
- 2.4 Community focus to be enhanced on Gibney Street for community uses such as facilities for childcare and arts and crafts workshops.
- 2.5 Joint use of facilities between school and Country Club to be encouraged for reciprocal car parking and servicing.
- 2.6 The area should be primarily residential with opportunities to develop duplex lots taken advantage of.

### 3. *West Dunsborough*

#### *Area 3A - Rural Living and Landscape Protection*

This area is characterised as the visual backdrop to the town with several drainage lines passing through the area. Much of the land has been cleared for pasture, however areas adjacent to creeks are well vegetated.

##### *Policies*

- 3.1 The development of this area should be considered as part of Shire Local Rural Strategy.
- 3.2 Emphasis should lie in protection of creek lines and their vegetation, utilizing the opportunity for linear pathways particularly to link future areas of rural living beyond the study area.
- 3.3 Protection of vegetation and minimising development along Caves Road is a priority.
- 3.4 Little additional subdivision to that already existing should be allowed in view of Caves Road.
- 3.5 Additional access points to Caves Road should be limited.

#### *Area 3B - Cluster Development in Parkland Setting*

This area either side of Naturaliste Terrace contains a number of creeks with associated vegetation and some cleared pasture. The land presents some major opportunities for development within a woodland setting.

##### *Policies*

- 3.1 Protection of vegetation between Naturaliste Terrace and Chapman Street should be priority in any residential development. Medium density overlooking the golf course is favoured.
- 3.2 A pathway should follow natural drainage course within which vegetation should be protected.
- 3.3 Higher densities and cluster development should be encouraged within 3B where vegetation is protected or where rural ambience is retained between urban cells.
- 3.4 Land east of Seymour Street would lend itself to cluster development relating to linear pathways.
- 3.5 Investigations into the "cluster residential housing form" be undertaken by Council with a view to providing primarily, holiday accommodation for that sector of the Dunsborough community.
- 3.6 Development should generally be below the 40m contour of land west of Seymour Street.
- 3.7 The development of land west of Seymour Street should be staged to proceed after the development of land to the east of Seymour Street.
- 3.8 A site for a community centre to be identified as part of structure planning for the area.

### 4. *Central Dunsborough*

#### *Area 4A - Naturaliste Terrace*

This area is characterised by the routes of two creeks and their associated vegetation. Much of the area is covered with Eucalypt woodland. Wetlands occur on either side of Seymour Street.

### *Policies*

- 4.1 While some single residential development is likely to take place in this policy area the emphasis should be on catering for tourist uses and preserving the riparian vegetation, wetlands and roadside vegetation.
- 4.2 Short stay accommodation should be encouraged and Reserve 15493 developed for overflow tent camping.
- 4.3 The creek should be protected and developed with a linear pathway.
- 4.4 Reserve 28683 should be dedicated for conservation of flora and fauna and utilised for passive recreation.

### **4B - Gifford Road**

This area contains development which relates closely to the foreshore currently used for tourist accommodation. Some of the land is developed for single residential dwellings.

### *Policies*

- 4.1 Future development in this policy area should recognise the strategic location of the area and its potential to accommodate tourists.
- 4.2 Existing short stay accommodation zones should be retained and developed for a range of uses.
- 4.3 Medium density should be preferred in residential areas.
- 4.4 A foreshore reserve, within which are developed pathways, picnic facilities and a low key kiosk/tearooms styled on the old beach cottages, in the event of redevelopment of areas zoned for short stay accommodation.
- 4.5 The Council depot on Naturaliste Terrace should be relocated to the future industrial area and other community and emergency service uses should be relocated to the town centre with the land being developed for residential uses.
- 4.6 New development should make provision for a drainage outfall between the Greenacres Caravan Park and the town centre.

## **5. Rural Living**

This steeply sloping, elevated and heavily wooded area forms a backdrop to the settlement on the coastal plain and is an important visual entry statement for visitors travelling along Caves Road. The area is largely developed as a Special Rural Zone.

### *Policies*

- 5.1 Additional development for rural living should be justified in a local rural strategy.
- 5.2 Maximum vegetation should be preserved within lots created.
- 5.3 Development should not be visible from Caves Road or Quindalup.
- 5.4 Development should take account of the possibility of odours from the sewage ponds.

## **6. Pattons Paddocks**

This area is characterised by an open rural landscape with isolated remnant woodland and associations of peppermints and Eucalyptus. Several vegetated swales drain to dams and soaks near Caves Road.

### *Policies*

- 6.1 Replanting of a vegetation strip along Caves Road should be undertaken. Some planting of trees which will grow to a large size, such as flooded gum and peppermints, would be appropriate.
- 6.2 Existing vegetation should be protected.
- 6.3 Residential development above the 10m contour of the north western portion of the policy area should ensure that views from Caves Road and Quindalup are not impaired.
- 6.4 Full urban services should be provided to any urban development
- 6.5 Development should be at single residential densities overall, but opportunities for higher densities and cluster development with open space or parkland in between should be encouraged.
- 6.6 Residential development should be staged from the north.
- 6.7 Public open space due as a result of residential development should go towards the setting aside and development of playing fields opposite the town centre.
- 6.8 Private recreation development may be permitted within the policy area.
- 6.9 No development should take place within 500m of the sewerage ponds on Commonage Road.
- 6.10 A General Industrial area could be developed to the south of the policy area. This should maximise the use of existing vegetation and replanting for screening. No industries emitting smoke or odours should be permitted in view of prevailing winds being from the south and east.

## **7. Broadwater**

This area features the Broadwater swamp with its paperbark woodland, Toby's Inlet, an open water area, and areas of undulating pasture.

### *Policies*

- 7.1 Development should be primarily associated with extensive rural activities.
- 7.2 Development should not interfere with the physical and biological integrity of the Broadwater swamp and its environs.
- 7.3 Toby's Inlet should be safeguarded as a wildlife refuge and any adjacent subdivision should provide additional land for the reserve.
- 7.4 Recreational opportunities should be created associated with Toby's Inlet such as picnic areas, walking trails, car parking etc.
- 7.5 No further subdivision should be allowed in the area.

## **8. Quindalup**

The area is characterised by single storey residential development on the Quindalup barrier dune system. The area incorporates a number of environments including the seaside, minor wetlands, estuarine environment and peppermint woodland.

The Commission is currently preparing a detailed Coastal Management Plan for the Busselton coastline which will need to be taken into account in the planning of the Quindalup area in particular.

### *Policies*

- 8.1 Within this predominantly single residential area infill should be encouraged particularly in seweraged areas.
- 8.2 The Quindalup Reserve would be better utilised for boat launching with the development of ablution facilities and the establishment of appropriate nodal car parking, to service the boat ramp and other beach users, incorporating existing vegetation where possible.
- 8.3 Residential development west of Elmore Street should recognise the lake as a landscape feature.
- 8.4 As Quindalup is low lying those developing should be made aware of the risks of storm surges and sea level rises.

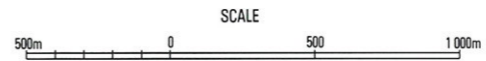
## **9. Town Centre**

This area is the centre of retail, commercial, light industrial and business activity. The area also includes some residential and tourist accommodation. The area lacks a theme and comprises an array of architectural styles, a lack of landscaping and a number of open parking areas.

### *Policies*

- 9.1 Entry to town should be via Seymour Street which should be constructed as a priority as an avenue with a landscaped entry statement.
- 9.2 Naturaliste Terrace, at the intersection at Dunn Bay Road, should be modified to facilitate traffic movement and pedestrian safety without reducing access to the Dunsborough Resort Hotel.
- 9.3 The town centre should receive better landscaping and development should be required to demonstrate its ability to be integrated with the general Dunsborough character in terms of building form, colour and setback.
- 9.4 An area of at least 1ha should be reserved north of Dunn Bay Road for public uses, to include Government offices, community and emergency services.
- 9.5 The creek and its associated vegetation should be retained and developed with a pathway. The remaining land in private ownership should be acquired as a condition of subdivision and/or development.
- 9.6 Medium density residential development or short stay accommodation is preferred for non commercial areas.
- 9.7 The town centre's role should be consolidated with the location of service uses within the area.
- 9.8 Development should incorporate elements for the comfort and safety of pedestrians including defined road crossing points, uniform paving, weather shelters, shade trees, path lighting and seating.

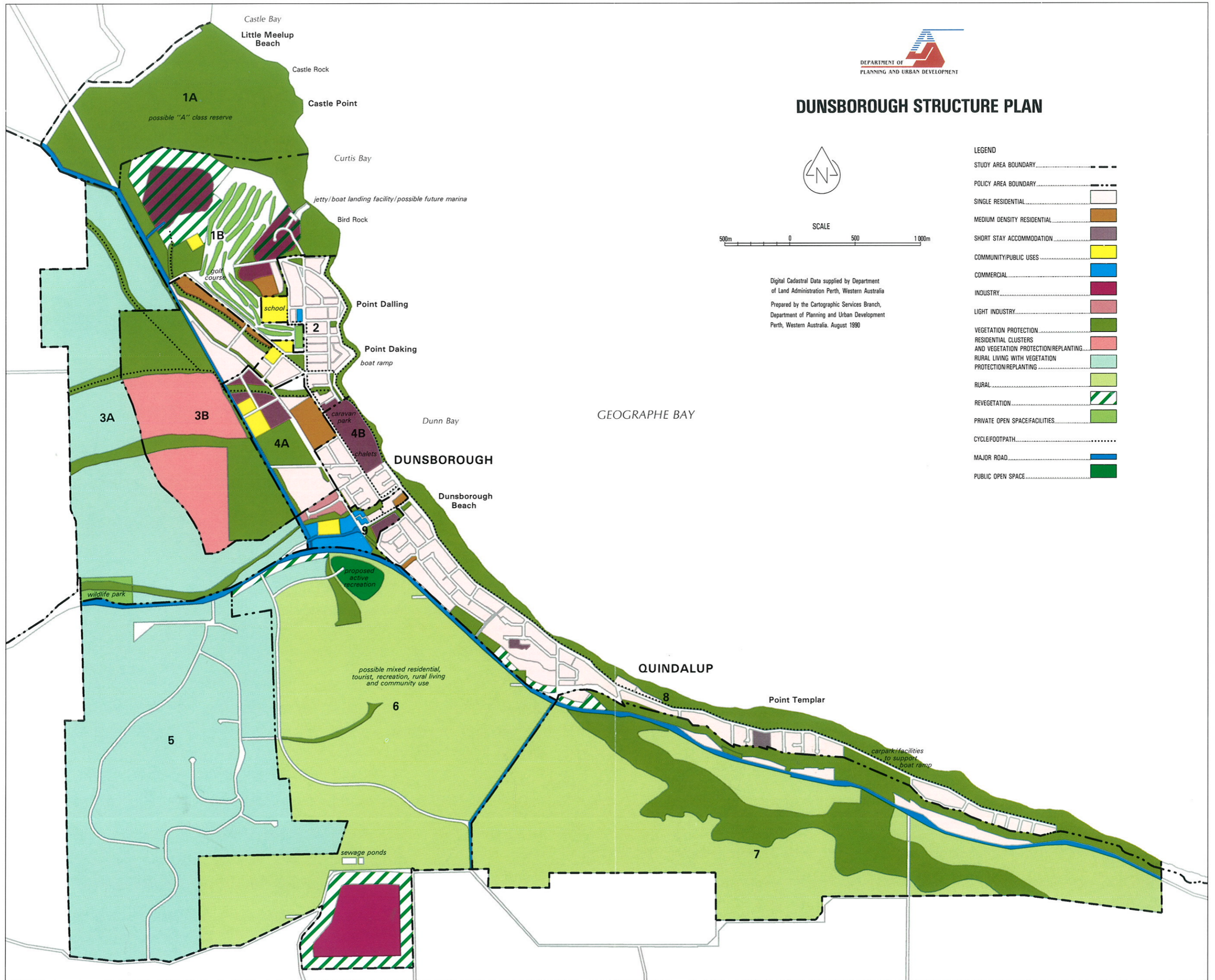
# DUNSBOROUGH STRUCTURE PLAN



Digital Cadastral Data supplied by Department of Land Administration Perth, Western Australia  
Prepared by the Cartographic Services Branch, Department of Planning and Urban Development Perth, Western Australia, August 1990

LEGEND

- STUDY AREA BOUNDARY.....
- POLICY AREA BOUNDARY.....
- SINGLE RESIDENTIAL.....
- MEDIUM DENSITY RESIDENTIAL.....
- SHORT STAY ACCOMMODATION.....
- COMMUNITY/PUBLIC USES.....
- COMMERCIAL.....
- INDUSTRY.....
- LIGHT INDUSTRY.....
- VEGETATION PROTECTION.....
- RESIDENTIAL CLUSTERS AND VEGETATION PROTECTION/REPLANTING.....
- RURAL LIVING WITH VEGETATION PROTECTION/REPLANTING.....
- RURAL.....
- REVEGETATION.....
- PRIVATE OPEN SPACE/FACILITIES.....
- CYCLE/FOOTPATH.....
- MAJOR ROAD.....
- PUBLIC OPEN SPACE.....



## *Appendix 1*

### *Steering Committee Membership*

Ian Macrae, Chairman	State Planning Commission
Joy Smith	President, Shire Of Busselton
Terry House	Councillor, Shire Of Busselton
Fred Robinson	South West Development Authority

### *Officers Assisting*

Geoff Klem	State Planning Commission
Brian Evans	Shire Of Busselton
Leo Lavtas	State Planning Commission
Carol Anderson	State Planning Commission

## Appendix 2

### *References Referred To In The Text*

1. Leeuwin-Naturaliste Region Plan, Stage One, Spc 1988.
2. Policy Area 3 - Naturaliste Planning Statement, Spc 1988.
3. Dunsborough Structure Plan - Hames Sharley Australia 1988.
4. Dunsborough Urban Growth Project - Planning Collaborative Australia Pty Ltd 1988.
5. Correspondence From Peter DeChiera, Dunsborough Real Estate to Superior Holdings, February 22, 1989.
6. Survey Undertaken By Stephanie Clegg, Department of Conservation and Environment, 1986 (unpublished).
7. Naturaliste Community and Cultural Centre Planning Committee Report, May 1987.
8. A Study Into Recreational Boating Facilities Within Western Australia - P.A. Australia 1981.

## Appendix 3

### Country Planning Council Recommendations

At its meeting on October 10, 1989 the Country Planning Council resolved to recommend to the Hon Minister for Planning that the draft Dunsborough Structure Plan be endorsed subject to the following modifications and conditions:-

- (i) That the plan be reviewed every five years.
- (ii) That the reserve status of the Meelup Reserve be addressed by an implementation Committee. (The draft plan recommended that the Reserve be "A Class".)
- (iii) That the State Government instigate the necessary engineering and environmental investigations to establish the feasibility of developing a safe anchorage at Curtis Bay and;  
That Toby's inlet be investigated to establish whether the inland waterway could be upgraded to serve as a safe anchorage. (Although not recommended, investigations should include an economic analysis).
- (iv) That alternative road access to the town centre as recommended by the Department of Land Administration be incorporated in the Structure Plan and;
- (v) That the Dunsborough By-pass road be shown as a local collector road on the Structure Plan. (This road which will service land south of Caves Road, Planning Policy Areas 5 and 6 as shown on attached Plan, was perceived as a major arterial road by local residents.)
- (vi) That additional future residential development in the area known as Patton's Paddocks (Policy Area 6 as shown on the attached Plan) could be considered provided that the objectives of the Structure Plan are adequately addressed. The open rural vista which is a feature of the overall character of the town and entry statement must not be compromised. (This is a response to concerns relating to the amount of land available for town expansion) and;  
That Lot 1 Wilson Avenue be included in the Structure Plan as Single Residential and;  
That Sussex Locations 164 and 49 and Lot 113 be shown on the Structure Plan as Single Residential. (These areas, except Patton's Paddocks, are small infill locations within the existing urban area.)
- (vii) That the industrial area be located immediately South of the proposed area (Lot 6 Commonage Road) and be increased in size to between 15 and 20 hectares.
- (viii) That reference to the Community Centre site on the corner of Gibney Street and Gifford Road be deleted from the text and;  
That a suitable Community Centre site be located in close proximity to the town centre.
- (ix) That the public open space area shown on the Structure Plan be denoted as "active recreation".

