

**WESTERN
AUSTRALIAN
GOVERNMENT
Gazette**

2059



PERTH, TUESDAY, 10 JUNE 2003 No. 91 SPECIAL

PUBLISHED BY AUTHORITY JOHN A. STRIJK, GOVERNMENT PRINTER AT 3.00 PM

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**WESTERN AUSTRALIAN PLANNING
COMMISSION**

STATEMENT OF PLANNING POLICY No. 2.6

STATE COASTAL PLANNING POLICY

PREPARED UNDER SECTION 5AA OF THE TOWN PLANNING AND
DEVELOPMENT ACT 1928

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WESTERN AUSTRALIAN PLANNING COMMISSION

STATEMENT OF PLANNING POLICY No. 2.6

STATE COASTAL PLANNING POLICY

PREPARED UNDER SECTION 5AA OF THE TOWN PLANNING AND DEVELOPMENT ACT 1928.

1. CITATION

This is a Statement of Planning Policy made under Section 5AA of the *Town Planning and Development Act* (1928). This Policy may be cited as Statement of Planning Policy No. 2.6: State Coastal Planning Policy.

2. INTRODUCTION AND BACKGROUND**2.1 The Western Australian Coast**

The Western Australian coast is one of the State's greatest assets in terms of its environmental, economic, social and cultural resources. Over 80% of the State's population currently lives within 30 kilometres of the coast. Western Australians value a coastal lifestyle and the unique opportunities that our coast provides.

The Western Australian coast varies in character and patterns of use and includes—

- urban coasts, where the adjacent uses are predominantly residential and commercial and there is a high demand for recreational activity;
- natural coasts, with less intensive hinterland uses and concentrations of tourism and associated recreational activities; and
- wilderness coasts, with limited opportunity for low key tourism and associated recreational activities.

There are pressures on the coast for use by different groups in the community for a variety of purposes including a mix of recreational, residential, industrial and commercial uses. Planning for coastal land is about balancing these often competing needs and desires in a way that takes into account the values of the coast. These values include its scenic, aesthetic and ecological qualities, its recreational opportunities, and its social, indigenous, cultural and economic importance. The presence of coastal hazards is also an important consideration. The overall effect is such that the coast contributes to our psychological well-being and health.

Pressure on coastal resources is increasing. Successful coastal planning today will ensure that all Western Australians, both present and future generations, can benefit from the opportunities presented by the values and resources of the Western Australian coast.

2.2 The Policy Context

The draft *Coastal Zone Management Policy for Western Australia* (2001) provides the whole-of-government framework for setting strategies and plans for the coast. This State Coastal Planning Policy recognises the coastal threats and pressures identified in the draft *Coastal Zone Management Policy for Western Australia* and is consistent with the vision, goal, principles, objectives and policies it has established.

Statement of Planning Policy No. 2: Environment and Natural Resources Policy sets out the broad environment and resource management policies for sustainability, including measures to—

- 5.1 (viii) *Safeguard and enhance areas of environmental significance on the coast including the marine environment.*
- 5.1 (ix) *Ensure use and development on or adjacent to the coast is compatible with its future sustainable use for conservation, recreation and tourism in appropriate areas.*
- 5.1 (xii) *Take into account the potential for impacts from changes in climate and weather on human activities and cultural heritage including coastal and urban communities, natural systems and water resources.*

Under the *Environment and Natural Resources Policy* planning strategies, schemes and decision-making will identify and, where appropriate, include provisions for the sustainable use of the coast.

This Policy is consistent with and complementary to the *Environment and Natural Resources Policy* and the draft *Coastal Zone Management Policy for Western Australia* and should be read and applied within the context provided by these policies.

Relationship to WAPC Development Control Policies

Coastal planning in Western Australia, outside the Perth Metropolitan Region, has been guided by the Commission's *Development Control Policy 6.1 Country Coastal Planning Policy* (DC 6.1). This Statement of Planning Policy applies state-wide and draws on and is supported by DC 6.1. Application of DC 6.1 is to be viewed in light of this Policy. All references to DC 6.1 within other Commission policies relevant to the coast (including *Development Control Policies 1.8 Canal Estates and other Artificial Waterway Developments*, *2.3 Public Open Space in Residential Areas* and *4.2 Planning for Hazards and Safety*) are to be accompanied by reference to this *Statement of Planning Policy No. 2.6: State Coastal Planning Policy* as the higher order and prevailing policy.

2.3 Setbacks

The Policy distinguishes between coastal foreshore reserves and development setbacks for physical processes.

A total setback will provide for both physical processes and other factors such as ecological values and public access to be provided for in a coastal foreshore reserve. Schedule One provides guidance on accommodating physical processes, the resultant setback does not necessarily equate to coastal foreshore reserve requirements, which will be determined having regard to the policy measures in Section 5.

The required total setback will vary according to the circumstances of any particular proposal. As a general guide a total setback in the order of 100 metres from the horizontal setback datum (HSD) will be expected but each proposal must be assessed having regard to this Policy, including the principles of Schedule One.

3. APPLICATION OF THE POLICY

This Policy applies to the coast throughout Western Australia, including—

- coastal seabed, reefs, rocky outcrops and headlands, beaches, foreshores, dunal systems, mangroves, wetlands and flats subject to sea action and coastal processes;
- near shore marine waters;
- all islands within the State lying seawards of the mainland; and
- land use and development abutting the coast.

In addition, town planning schemes and local planning strategies may also identify areas of coastal influence to which this Policy applies.

This Policy does not apply to estuaries that are predominantly riverine in character.

4. OBJECTIVES

The objectives of this Policy are to—

- protect, conserve and enhance coastal values, particularly in areas of landscape, nature conservation, indigenous and cultural significance;
- provide for public foreshore areas and access to these on the coast;
- ensure the identification of appropriate areas for the sustainable use of the coast for housing, tourism, recreation, ocean access, maritime industry, commercial and other activities; and
- ensure that the location of coastal facilities and development takes into account coastal processes including erosion, accretion, storm surge, tides, wave conditions, sea level change and biophysical criteria.

5. POLICY MEASURES

5.1 General Measures

Local and regional planning strategies, structure plans, schemes, subdivisions, strata subdivision and development applications, as well as other planning decisions and instruments relating to the coast should—

Public Interest

- (i) Ensure that adequate opportunity is provided to enable the community to participate in coastal planning and management. Including the support and guidance of activities undertaken by voluntary coast care groups.
- (ii) Maintain and enhance public enjoyment of the coast where this is consistent with the objectives of this Policy.
- (iii) Require the provision of public access to the coast that is consistent with the values

and management objectives of the area including, the interests of security, safety and protection of coastal resources, as well as the recreational opportunities, both on and offshore, of that section of coast.

- (iv) Support public ownership of the coast, including where appropriate the provision of a coastal foreshore reserve and accommodation of regional and local recreational needs.
- (v) Support the removal of existing unlawful dwellings (squatter shacks) on coastal Crown land as per the Cabinet endorsed State Government Squatter Policy (July, 1989 and January, 1999).

Coastal Foreshore Reserve

- (vi) Ensure that the identification of land to be set aside for public ownership for conservation, management, public access and recreation, is undertaken during the planning process. Generally this land, from the total setback line seaward, should be given up free of cost at the time of development, subdivision or strata subdivision, over and above the required provision of public open space.
- (vii) Support vesting of the coastal foreshore reserve in the relevant local government for the purposes of foreshore management and recreation. Where the land has significant conservation value, vesting should generally be with the State body responsible for the conservation estate. Opportunities to improve and protect the conservation values of freehold land should also be considered.
- (viii) Ensure that the identification of coastal foreshore reserves takes into account consideration of ecological values, landscape, seascape, visual amenity, indigenous and cultural heritage, public access, public recreation needs and safety to lives and property (as described for the physical processes setback in Schedule One).
- (ix) Ensure that the coastal foreshore reserve is separated from adjacent development in a way that provides a clear demarcation between public and private land.

Coastal Strategies and Management Plans

- (x) Ensure that, at rezoning, subdivision, strata subdivision or development, whichever arises first and is appropriate in scale, a coastal foreshore management plan is prepared and implemented, by the proponent, for the coastal foreshore reserve and any abutting freehold land with conservation values of the subject land.
- (xi) Ensure that any structure plan, zoning, subdivision, strata subdivision or development proposal for public purposes, residential, industrial, commercial, tourist, special rural and similar uses on the coast is only approved based upon or in conjunction with a current detailed coastal planning strategy or foreshore management plan (whichever is appropriate for the stage and scale of development).

Environment

- (xii) Protect significant natural, indigenous and cultural features of the coast. These include sites and features significant as coastal habitats and for their biodiversity, cultural, built, archaeological, ethnographic, geological, geo-morphological, visual or wilderness values.
- (xiii) Avoid any significant and permanent negative impacts on the environment and coastal processes, either on or off site.
- (xiv) Ensure development located on or adjacent to the coast does not cause discharges of waste and storm-water that would be likely to degrade the coastal environment, including the coastal foreshore reserve, coastal waters and marine ecosystems.

Development and Settlement

- (xv) Ensure that use of the coast, including the marine environment, for recreation, conservation, tourism, commerce, industry, housing, ocean access and other appropriate activities, is sustainable and located in suitable areas.
- (xvi) Ensure that, when identifying areas suitable for development, consideration is given to strategic sites for coastal access and commercial development that is demonstrably dependent on a foreshore location including ports, boat harbours and regional boat ramps.
- (xvii) Ensure that, when selecting a development location, regard is given to infrastructure capacity, and where possible existing infrastructure be upgraded and improved.
- (xviii) Encourage urban development to be concentrated in and around existing settlements, particularly those with established infrastructure and services. Continuous linear urban development along the coast should be discouraged or, where it has occurred, carefully controlled. Proposed major urban development outside existing settlements will only be supported where a genuine community

need has been demonstrated and the environmental capability has been properly assessed.

- (xix) Require that proponents demonstrate why their development should be located within the policy area. Valid proposals will generate a demonstrable net public benefit in both the short and long term.
- (xx) Ensure that land use and development, including roads, adjacent to the coast is sited and designed to complement and enhance the coastal environment in terms of its visual, amenity, social and ecological values.
- (xxi) Support the use of water sensitive urban design best management practice for adjacent development to avoid discharge of waste and storm-water into the coastal foreshore reserve. The discharge of some storm water may be acceptable if there is no alternative disposal method and provision is made for pre-treatment to remove solids, reduce nutrients and other contaminants.

Physical Processes Setback

- (xxii) Ensure that new buildings and foreshore infrastructure on the coast are positioned to avoid risk of damage from coastal processes and, where possible, avoid the need for physical structures to protect development from potential damage caused by physical processes on the coast. The Setback Guidelines in Schedule One form part of this Policy and should be applied to determine appropriate setbacks to accommodate coastal processes.
- (xxiii) Recognise, if specifically appropriate, the variations and possible exemptions to the physical processes setback (in Schedule One) that may be considered to accommodate varying physical circumstances and desirable, essential or practical community development outcomes (as specified in the Schedule).

5.2 Coastal Plan Requirements

A coastal planning strategy and/or foreshore management plan should be prepared to support development proposals on the coast. The coastal planning strategy or foreshore management plan should—

- (i) take into account—
 - coastal processes and sea level change;
 - landform and stability;
 - ecological values;
 - water quality;
 - recreation and public access;
 - marine resource use and access;
 - landscape, seascape and visual amenity;
 - indigenous heritage;
 - cultural heritage;
 - coastal hazards; and
 - land capability.
- (ii) set out requirements for—
 - coastal foreshore reserves and development setbacks;
 - location and extent of public use, access and facilities;
 - integration of coastal/marine planning and land use planning;
 - protection of significant views and vistas;
 - protection of significant natural landscapes;
 - protection of significant indigenous heritage;
 - protection of significant cultural heritage;
 - protection of ecological systems; and
 - protection of threatened species and ecological communities.
- (iii) provide guidelines and criteria for development addressing—
 - form and scale of development;
 - foreshore tenure and management;
 - location, form and land use within development nodes;
 - waste and storm-water disposal and the use of water sensitive urban design best management practices; and
 - financial responsibilities for ongoing maintenance and management of foreshore areas including any foreshore protection structures.

A detailed description of the two types of coastal plans is provided in the WAPC's *Coastal Planning and Management Manual (2003)*.

The coastal planning strategy or foreshore management plan should be developed in consultation with the broad community and relevant public authorities, and achieve the approval of the local land manager and the WAPC if appropriate.

The currency of plans relates to their need for review and is based on factors such as continued relevance, the extent and nature of change and pressures operating in the plan's study area.

6. IMPLEMENTATION

The purpose of this Policy is to inform and guide the WAPC in the undertaking of its planning responsibilities, and in integrating and co-ordinating the activities of State agencies that influence the use and development of land on the coast. The Policy will also guide local governments, other agencies, the Town Planning Appeal Tribunal and State Government of those aspects of State planning policy concerning the protection of the coast that should be taken into account in planning decision-making.

There are many agencies with statutory responsibilities along the Western Australian coast. While recognising these responsibilities, this Policy provides a means for co-ordinating those agencies' activities with those of the private sector to ensure an integrated approach for coastal planning. The Policy also provides guidance for private landowners wishing to undertake development on or abutting the coast.

Implementation of this Policy will primarily be through the preparation of regional and local strategic plans, statutory planning schemes, conservation and management plans, and other relevant plans, as well as through the day to day process of decision-making on zoning, subdivision, strata subdivision and development applications, and the actions of other State agencies in carrying out their responsibilities. New or amended region or town planning schemes should be consistent with the objectives, policy and guidelines content of this Policy. Local governments and State agencies should take account of this Policy to ensure integrated decision-making.

This Policy also provides guidance for situations where planning decisions occur outside the framework of the *Town Planning and Development Act (1928)*, such as for unvested Crown land, pastoral lease, indigenous and conservation estate lands.

Given the variation of coastal environments in the State and the range of development and use contexts that can be presented, it is important that this Policy, and the setback guidelines in Schedule One, be applied to each case under consideration on its merits using the best available information, common sense and a precautionary approach.

The Policy will be monitored on an ongoing basis and reviewed as required or at least within five years of its adoption.

Information Support

Good planning requires a basis in comprehensive, accurate and up-to-date information on the current status and trends of natural resources, including use, tenure and degradation. The WAPC and the Department for Planning and Infrastructure supports coastal planning and management activities through a number of programs including—

- Shoreline movement and coastal engineering advice through its Coastal Asset Management Directorate;
- Coastal Planning Program; and
- Coastal Planning and Management Manual.

Further information and guidance on the policy—focused at assisting local government with implementation—will be subsequently developed. This will include the provision of GIS data through the Local Area Mapping program; preparation of Model Scheme Text provisions; and the development of implementation case studies.

It is recognised that comprehensive, accurate and up-to-date information on the current status and trends of natural resources including use, tenure and degradation, may not be immediately available to local government or the community. Proponents should be requested to supply necessary information where Council believe it is necessary to enable decisions to support the policies.

7. DEFINITIONS

In this Policy, unless the context otherwise requires—

“accretion” refers to shoreline movement where the horizontal setback datum (HSD) and or shoreline shifts seaward increasing the width of a coastal foreshore reserve and or the distance to a fixed feature on the landscape.

“a coastal foreshore reserve” is the area of land on the coast set aside in public ownership to allow for coastal processes and provide protection of ecological values, landscape, visual amenity, indigenous and cultural heritage, and public access, recreation and safety; this area generally includes the total setback (as defined in Section 2.3).

“a coastal or foreshore management plan” is a local scale plan, designating areas for various purposes such as public access, car parks, toilets and surf life saving club rooms, and providing advice on management needs. Foreshore management plans tend to deal with a smaller area, be more detailed and are prepared as part of the development process.

“a coastal planning strategy” is generally a district or sub-region scale plan, focussing on the coast, designating areas suitable for conservation, recreation and development purposes. It should include a strategic land use and access strategy and determination of an appropriate setback.

“a development node” is a distinct and discrete built area that may be located within the total setback, it may vary in size from a grouping of recreational facilities to an urban area.

“erosion” refers to shoreline movement where the horizontal setback datum (HSD) and or shoreline shifts landward reducing the width of a coastal foreshore reserve and/or the distance to a fixed feature on the landscape.

“the horizontal setback datum” or HSD means the line, determined with regard to physical or biological features of the coast, from which a setback will be applied. (For how to determine the line, see Schedule One, Section C).

“infill development” refers to undeveloped sites between existing developments where if these were developed the site owners would be able to join to undertake beach protection “works in common” if future erosion threatened the safety of their properties.

“setback” means the minimum distance from the horizontal setback datum (HSD) required to protect development from coastal processes in the 100-year planning period and/or to provide for the factors supported within a coastal foreshore reserve; the ‘and’ case equals the “total setback” (see Section 2.3).

SCHEDULE ONE

COASTAL DEVELOPMENT SETBACK GUIDELINES FOR PHYSICAL PROCESSES

A. Introduction

These setback guidelines provide direction for the siting of development, including subdivision and strata subdivision, on the Western Australian coast as defined in this Policy.

The specific objectives of these guidelines are to provide a setback that protects development from coastal processes by—

- absorbing the impact of a severe storm sequence;
- allowing for shoreline movement;
- allowing for global sea level rise; and
- allowing for the fluctuation of natural coastal processes.

Given the variation of coastal environments in Western Australia and the range of development contexts that can be presented, these Guidelines should be applied to each case on its merits.

The setback calculated from this Schedule does not normally delineate the coastal foreshore reserve. Factors other than physical processes will often require additional setback and should be considered on a case-by-case basis. These factors include ecological values, landscape, seascape, visual amenity, indigenous and cultural heritage, public access, recreation and safety to lives and property.

An appropriate coastal foreshore reserve may be greater than the setback required to protect development from physical processes on the coast.

B. Planning Time Frame

These guidelines are based on a 100-year planning time frame and consider ocean forces and coastal processes which have a statistical recurrence of once per one hundred years.

C. Setback Delineation

Setbacks will be applied from a defined line known as the horizontal setback datum (HSD). The HSD is determined with regard to physical or biological features of the different coastal types—sandy, rocky, mangrove and cyclonic.

C.1 Sandy Shorelines/Mobile Dunal Systems

The HSD will be the line indicating the landward limit of annual beach change, which can be identified on aerial photographs or by survey as the seaward extent of ephemeral vegetation on an accreting coast, or the toe of the erosion scarp on an eroding coast (see illustrations attached).

C.2 Rock Shorelines

The HSD will depend on the specific nature of the rock shoreline in question. A well lithified rock shore that protrudes high above sea level does not have an erosion problem but is likely to have an irregular alignment. A limestone shore fronted by a very wide reef shelf has good self-protection against erosion provided that solid rock also extends to well above sea level. However, much of the shore of the lower west coast of Western Australia is cavernous and irregular at the present sea level and would erode significantly were sea level to rise. The HSD will be set on a case-by-case assessment based on the normalised alignment of the landward limit of sea action.

C.3 Low Energy Mangrove Shorelines

The capacity of these shores to carry development is normally limited by geotechnical issues, since salt marshes landward of mangroves in low wave energy areas have an extremely low load capacity. Each case must be individually assessed. In the absence of geotechnical assessment, the HSD will be the *normalised* landward extent of annual inundation by ocean tides, marine mangrove species and areas of salt marsh based on historical data (such as aerial photographs and vegetation surveys).

C.4 Cyclonic Storm Inundation Areas

The HSD in areas prone to cyclonic storm inundation will be determined by a storm surge evaluation as discussed in Section F.4 of this Schedule.

D. Factors To Be Considered in Calculating Coastal Processes Setback

Each of the factors listed below is to be considered in calculating a setback to protect development from physical processes on the coast. The development setback for coastal processes will be the sum of the distances calculated for each of these independent factors.

The value given for each factor has been based upon the best available data, a conservative estimate of that factor and includes allowance for uncertainty. Nonetheless, it is important to note that these values, particularly those for sea level change, are based upon an imperfect knowledge of the underlying physical processes. As knowledge improves, the WAPC in consultation with and agreement of the Department for Planning and Infrastructure (DPI) will update the values.

More detail and or advice on the factors and the models used to calculate the value given for each factor can be obtained from the Senior Coastal Engineer, Asset Management Directorate of the DPI.

D.1 (S1) Distance For Absorbing Acute Erosion (Extreme Storm Sequence)

This distance requires the modelling of the impact of a sequence of storms on the shore at the development site. The use of models such as SBEACH is acceptable. In order to determine the storm sequence of 100-year recurrence, the model should be run with three successive runs of the recorded storm agreed by the WAPC and the DPI. Details of this storm are available from DPI. S1 shall be the total recession of the mean sea level contour.

In the absence of modelling, such as when data is unavailable, the default value of S1 shall be **40 metres**, based on modelling of a typical exposed sandy shore.

D.2 (S2) Distance to Allow For Historic Trend (Chronic Erosion or Accretion)

The chronic erosion setback allowance S2 should be calculated as 100 times the assessed present longer-term annual rate of erosion. The assessment should be based on monitoring of shoreline movement over at least a 40-year term, preferably longer, with the position of the HSD being determined at about five-year intervals. On a relatively stable shore the minimum value of S2 should be a 'safety' allowance of **20 metres**, except where there is evidence that chronic accretion in excess of that distance has been identified for the 100-year forward planning term when the value for S2 will be 0 metres.

D.3 (S3) Distance to Allow for Sea Level Change

The setback to allow for sea level rise is based on the mean of the median model of the latest Assessment Report of the IPCC Working Group (currently, the *Third Assessment Report of the Intergovernmental Panel on Climate Change Working Group*, January 2001). The vertical change predicted by the current model between the years of 2000 and 2100 is 0.38 metres. A multiplier of 100, based on the Bruun Rule shall be used and gives a value for S3 = 38 metres for sandy shores. For other shore types, S3 shall be assessed in regard to local geography.

E. Example—Coastal Processes Setback Calculation

The sum of distances for S1, S2 and S3 provides the minimum setback distance, from the HSD, to allow for the protection of development from physical processes on exposed sandy shorelines in a given location. The recommended minimum values for each factor, as described in Section D, are based upon conservative estimates and include allowance for uncertainty. The practical application of these calculations is shown below.

E.1 Development on an Undeveloped Sandy Shore With either No Clearly Defined Historical Evidence of Chronic Erosion or Accretion or An Established Historical Rate of Chronic Erosion or Accretion of Less Than 20m Per 100 Years.

Component for acute erosion	S1 (40m) +
Component for historic trend (minimum)	S2 (20m) +
Component for sea level rise	S3 (38m) +
Setback minimum from HSD of 98m	

E.2 Development on an Undeveloped Sandy Shore With an Established Historical Rate of Chronic Accretion Above 20m Per 100 Years.

Component for acute erosion	S1 (40m) +
Component for historic trend (accretion)	S2 (0m) +
Component for sea level rise	S3 (38m) +
Setback minimum from HSD of 78m	

E.3 Development on an Undeveloped Sandy Shore With an Established Historical Rate of Chronic Erosion Above 20m Per 100 Years.

Component for acute erosion	S1 (40m) +
Component for historic trend (erosion)	S2 (Xm)** +
Component for sea level rise	S3 (38m) +
Setback minimum from HSD of 78+Xm	

** Where X equals 100 times the predicted annual level of erosion based on an assessment of historical change (as defined in Section D.2 of this Schedule) applied to conditions pertaining at the present time and is a value of greater than 20m.

F. Variations to the General Case**F.1 Infill Development of an Existing Coastal Subdivision.**

As a guiding principle, the coastal processes setback for infill development should seek to provide immediate protection for new development while accepting the reasonable and likely future protective requirements of adjoining development. Where an infill variation is allowed, a minimum setback of S1 should apply.

F.2 Development Adjacent To Coastal Protective Structures or Systems

Development that benefits from the protection of existing formal coastal protection systems will be determined on a case by case basis with any coastal processes setback distance taking into account the nature of the structure in question. Generally, works that are assured of care and maintenance in the future will compensate for S2. S1 still applies where there is a sandy beach within the system. Revetments that have been designed for wave heights and sea levels that will exist at the end of the planning term can compensate for both S1 and S3 provided that a sandy beach is not required or expected at the site.

F.3 Development on a Rock Shoreline***

The coastal processes setback is to be determined following a geotechnical survey accounting for possible erosion over a 100-year period. In the absence of any survey, the minimum setback shall be 50m from the HSD as defined for "Rock Shorelines" (Section C.2 of this Schedule).

*** A rock shoreline is defined as a coast where the highest visible impact of sea action is in direct contact with lithified material. The intent here is to provide guidance on coasts that contain cliffs or bluffs, such as the granitic coasts of the south coast or the sedimentary Zuytdorp Cliffs. Coasts that are predominantly sandy but may contain intermittent rocky outcrops should be considered as sandy coasts.

F.4 Development in Cyclone Prone Areas

Any development located to the north of latitude 30 degrees should be set back from the foreshore to afford protection from the impact of cyclonic storms. The extent of the setback should be defined on a case-by-case basis including S1, S2 and S3 where relevant. The storm surge that accompanies coastal cyclones can inundate large areas a significant distance inland from the high water mark. The setback should be defined with regard to the amount of existing foreshore protection (natural or man made) and to local topography including waterways, as storm surge can induce back-flooding. Development should be set back from any areas that would potentially be inundated by the ocean during the passage of a Category 5 cyclone tracking to maximise its associated storm surge.

G. Possible Exemptions

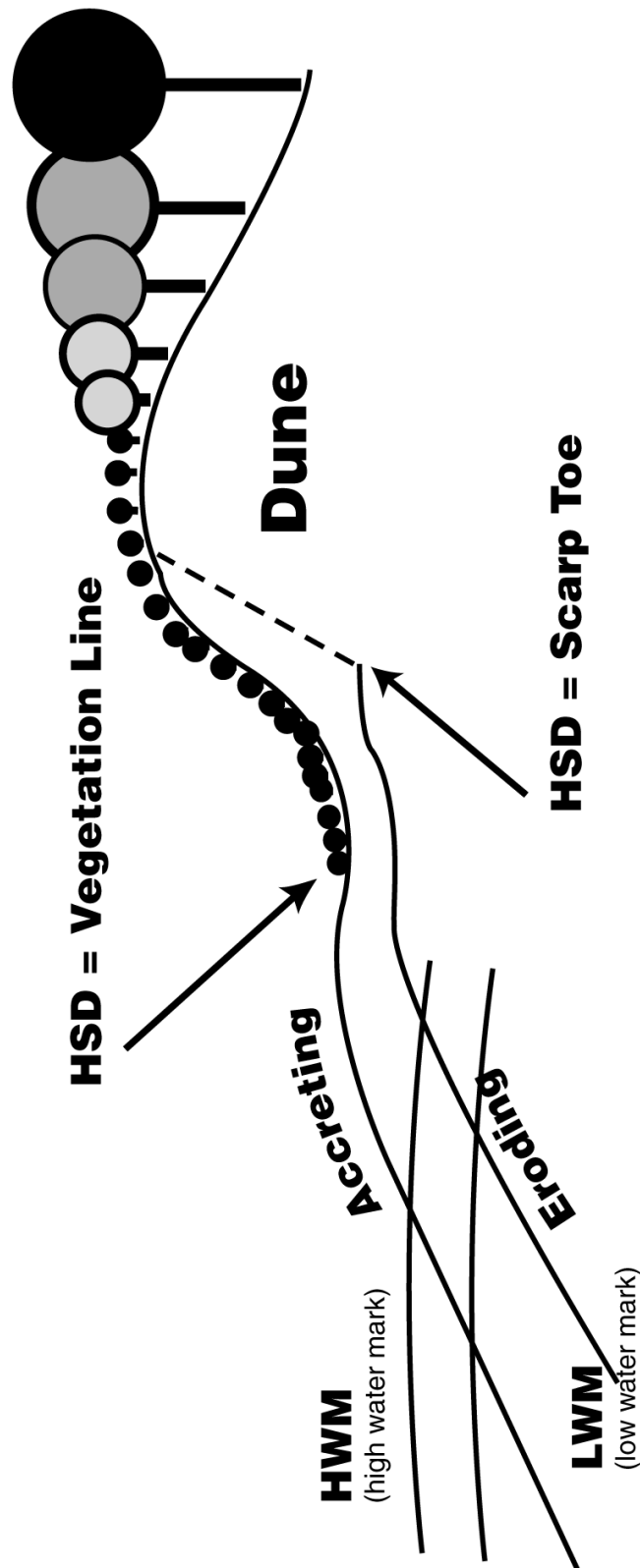
The coastal processes setbacks in this Schedule shall be applied to all coastal development with the exception of the following—

- (a) Development with an expected useful lifespan of less than 30 years undertaken by a public utility or government agency for a public purpose, on the proviso that the development is to be removed or modified should it be threatened by erosion or create an erosion threat to other land.
- (b) Temporary, easily relocatable structures that are demonstrably coastally dependent eg. Surf Life Saver lookouts.
- (c) Industrial and commercial development that is demonstrably dependent on a foreshore location. Such development may include, for example, marinas, cage based aquaculture operations, port facilities and associated infrastructure.
- (d) Department of Defence operational installations that require a foreshore location.
- (e) The need for the provision of development nodes on the coast is recognised and should provide for a range of facilities to benefit the broader public. Such nodes may be developed within the setback but should only be located where necessary ancillary coastal protection structures would not result in erosion or destabilisation of adjacent coast. Nodes should be located on stable areas and should avoid areas of high natural landscape or resource value.

Development that falls within the above general possible exemption types will be assessed on a case-by-case basis against the policy measures in Section 5 and in consultation with other relevant agencies and community as considered appropriate.

Development that is dependent upon location on the coast, but which would not require a direct interface with tidal areas or placement in the foreshore, such as resort developments or tank based aquaculture operations, is not included in these possible exemptions.

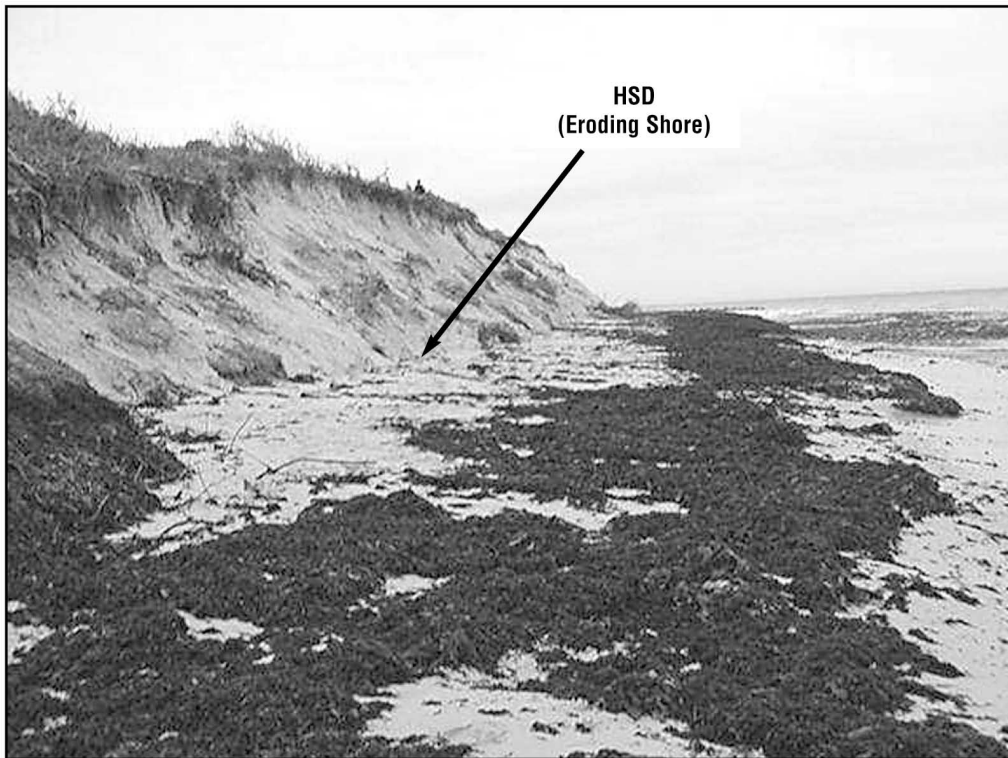
SCHEDULE ONE ATTACHMENT—HSD ILLUSTRATIONS



Cross-section showing HSD for Sandy Shorelines/Mobile Dunal Systems (C.1)

HSD for Sandy Shorelines/Mobile Dunal Systems (C.1)

Eroding Shore



Accreting Shore



HSD for Rock Shorelines (C.2)

Rock Shore



