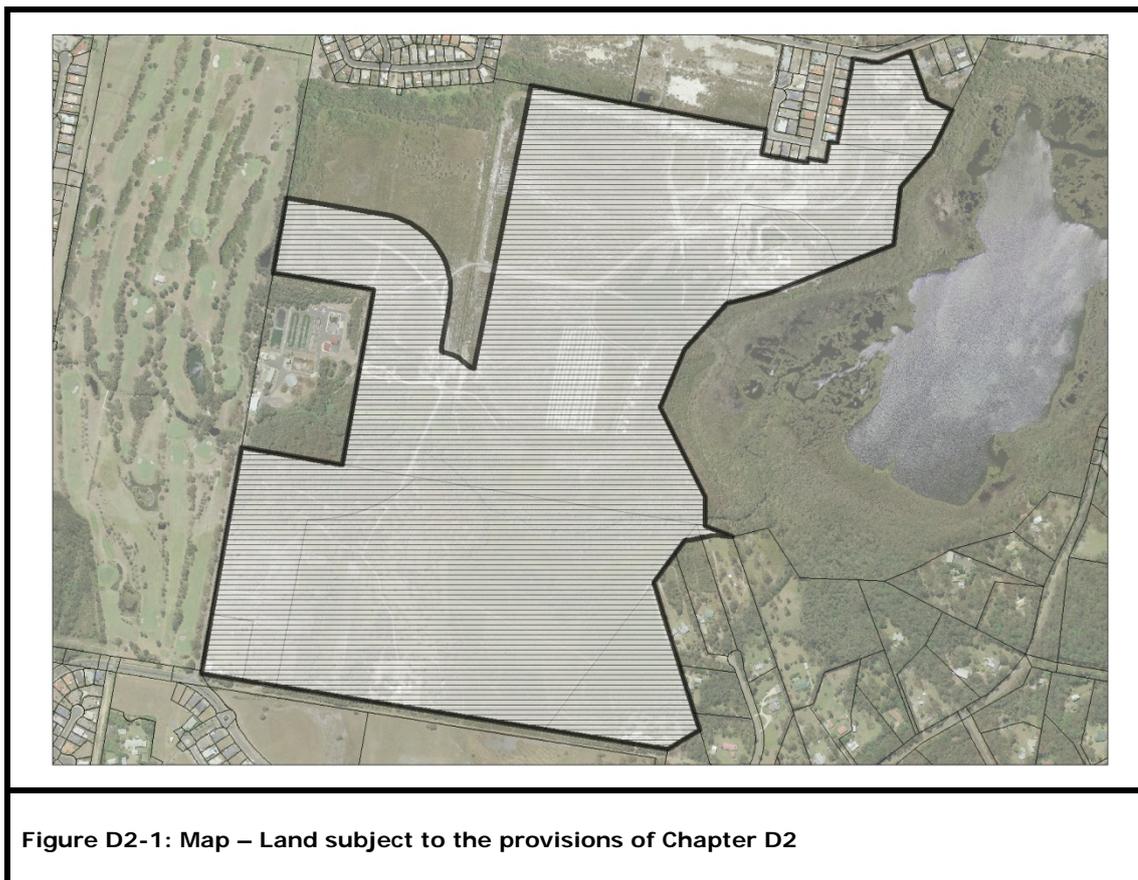


Chapter D2 – Saltwater Precinct, South West Rocks

1.0 Introduction

1.1 Scope of this Chapter

This DCP Chapter applies to development on land within the area bounded by the bold line described in the figure below. The land is referred to as the Saltwater Precinct in this chapter.



1.2 Relationship to Other Chapters of this DCP

The provisions of this Chapter override the provisions of any other Chapter of this DCP, to the extent of any inconsistency.

2.0 Chapter Objectives

The objectives of this chapter are:

- a) To ensure the provision of a safe and effective transport system within the Saltwater Precinct, that caters for pedestrians, bicycles and motor-vehicles and provides adequate connections to the existing street system.

- b) To encourage high quality and responsive urban design, responsive to:
- the Saltwater setting;
 - the village character of South West Rocks;
 - the diverse needs of the projected community;
 - the natural constraints on the site; and
 - the environmental qualities of Saltwater and surrounds, including areas of high conservation value.
- c) To ensure that infrastructure to service the Saltwater Precinct is provided and maintained in a robust, timely, cost-efficient, environmentally responsible, equitable manner that meets the demands of projected development.
- d) To ensure impacts of biting midge and mosquitoes are minimized in the Saltwater Precinct.
- e) To ensure Aboriginal Heritage is identified and protected within the Saltwater Precinct.
- f) To ensure that the following are developed by the developer and approved by Council before any significant development occurring within the Saltwater Precinct and subsequent development is undertaken in accordance with the following:
- (i) A Transport Management Strategy;
 - (ii) An Integrated Water Cycle Management (IWCM) Strategy and Water Sensitive Urban Design (WSUD) Planning and Technical Guidelines;
 - (iii) A Master Plan;
 - (iv) An Infrastructure Servicing Strategy (particularly sewer and water); and
 - (v) A Vegetation Regeneration, Rehabilitation and Maintenance Strategy.

3.0 Master Plan

State Environmental Planning Policy No 71 – Coastal Protection (SEPP71) requires that a Master Plan be approved by the Minister before Council can approve any development applications for subdivision (refer to SEPP71 for details of Master Plan triggers and requirements).

4.0 Development Requirements – Precinct Planning

Summary

Prior to any development occurring on the site, other than a subdivision that merely subdivides the Saltwater Precinct in line with the zone boundaries, the following documentation needs to be submitted to and approved by Council:

- a) A Master Plan, showing as a minimum the general layout of the Saltwater Precinct;
- b) A Traffic Management Strategy;
- c) An Integrated Water Cycle Management Strategy, including a Water Sensitive Urban Design Strategy;
- d) An Infrastructure Servicing Strategy (particularly sewer and water); and
- e) A Vegetation Regeneration, Rehabilitation and Maintenance Strategy.

4.1 Master Plan

Desired Outcomes

DO1 - A Master Plan is either:

- Approved prior to the submission of a development application for any development on the subject site, except a subdivision that merely subdivides the land in line with the zone boundaries; or
- Submitted with a development application for any development.

DO2 - The Master Plan provides the following:

- A **staging plan** for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing;
- An overall transport movement hierarchy showing the **major circulation routes** and connections to achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists, based on the Traffic Management Plan required in Section 4.2;
- An **overall landscaping strategy** for the protection and enhancement of riparian areas and remnant vegetation and Saltwater Creek and Lagoon;
- A public **Open Space Strategy**;
- A **Stormwater Concept Plan** showing the location and size of major stormwater infrastructure in the precinct;
- **Buffers and other responses** required for amelioration of natural, environmental and industrial hazards, including bush fire, acid sulphate soils, shallow groundwater table, mosquito breeding, noise and site contamination;
- A **general site layout for uses**, providing for residential densities and built form to achieve well designed urban development, including a range of **site sensitive lot sizes**;
- The identification and protection of any **Aboriginal** heritage relics on the land;
- Incorporates appropriate environmental and health provisions;
- Accommodates compliance with any Plan of Management for the effective ongoing management of Zone E2 – Environmental Conservation zoned land, access, bushfire, vegetation regeneration etc, where relevant;
- Provision of appropriate commercial development, where relevant;
- Provision of necessary social infrastructure; and
- Accommodates achievement of the relevant Desired Outcomes and Development Requirements in the remainder of this chapter.

Development Requirements

- a) Prior to the lodgement of a development application for a proposed development involving subdivision into 25 lots or more, a detailed Master

Plan is prepared and approved by the Minister, in accordance with the requirements of Part 5 of SEPP 71 – Coastal Protection.

- (i) The Master Plan is to address the matters required by clause 20(2) of SEPP 71 – Coastal Protection; and
 - (ii) The Master Plan is to address the relevant requirements of this chapter.
- b) Where the proposed development involves subdivision of less than 25 lots, or development resulting in any residential or commercial development, a concept Master Plan document is to be submitted and approved by Council with the development application. The concept Master Plan is to demonstrate how the proposed development will fit in the overall development of the Saltwater Precinct.
 - (i) The concept Master Plan is to address the following matters:
 - Provide a character analysis of the subject land and surrounds;
 - Specify urban design outcomes;
 - Identify areas to be used for residential subdivision and any commercial development;
 - Provide an Open Space Strategy;
 - General staging of development on the subject land;
 - Street landscaping strategy;
 - Aboriginal Heritage Management Strategy;
 - Be based on a detailed constraints analysis (eg acid sulphate soils, flooding, bushfire, significant vegetation etc); and
 - Biting midge and mosquito control mitigation; and
 - Buffers required around the Sewerage Treatment Plant and for Asset Protection Zones.
 - (ii) Any concept Master Plan incorporates environment and health provisions which provide for the following, but not limited to:
 - Enhancement of air quality to local residents;
 - Enhancement of water safety and supply;
 - Minimisation of health effects associated with noise, odour and light;
 - Mitigation of potential manmade and natural hazards;
 - Mitigation of possible pest infestations on vector catchments;
 - Adequate opportunities for walking, cycling and other forms of active transport;
 - Access to useable and quality open space and recreational facilities;
 - Access to physical activities; and
 - Crime prevention through environmental design principles in the master plan design.
- c) Any Master Plan is to demonstrate how development of the subject land will be compatible with any strategies prepared in accordance with the following sub-sections. These strategies being:
 - (i) Traffic Management Plan;
 - (ii) Integrated Water Cycle Management Strategy;
 - (iii) Vegetation Regeneration, Rehabilitation and Maintenance Strategy; and
 - (iv) Infrastructure Servicing Strategy.

- d) Any Master Plan is to address potential future development and connections to the deferred area (to the north of the South West Rocks Sewerage Treatment Plant) and all staging plans should accurately and consistently identify the constraints of this area.
- e) Any buffer areas nominated in a Master Plan are to be located wholly outside of land zoned E2 – Environmental Conservation.
- f) Should a Master Plan include scope for a group of neighbourhood shops or single neighbourhood shops, such neighbourhood shops are to be:
- (i) Located central to the development lands and in close proximity to the main access route; and
 - (ii) Sized so as to be limited to an ancillary scale to not compete with the existing activities/services provided within the existing South West Rocks village centre.
- g) Any master-plan application is to incorporate Social Infrastructure Provisions which provide for the following, but not limited to:
- (i) Access to a range of diverse social facilities to attract and support a diverse population.
 - (ii) A suitable response to existing and projected community needs.
 - (iii) An integrated approach to social infrastructure.
 - (iv) Maximise efficiencies in planning and provision of social infrastructure.
 - (v) Environments that encourage social interaction.
 - (vi) Measures to avoid community separation and displacement.
 - (vii) Consultation with local residents to ensure appropriate social infrastructure provisions are implemented.

4.2 Traffic Management Plan

Desired Outcomes

- DO1 – A Traffic Study for the Saltwater Precinct is approved prior to the issue of a development consent for any development within Saltwater Precinct.
- DO2 - A Traffic Study provides for a road network throughout the Saltwater Precinct that will generally comply with the relevant requirements of:
- [Chapter B1 – Subdivision](#);
 - [Chapter B2 – Parking, Access and Traffic Management](#);
 - [Council’s Engineering Guidelines for Subdivision and Development](#);
- and
- The following Development Requirements.
- DO3 - The Traffic Study shows how the transport network will be constructed in stages commensurate with staging of subdivision and development in Saltwater Precinct, where relevant.
- DO4 - Adequate vehicular, pedestrian and cycleway connections are provided throughout the Saltwater Precinct.

Development Requirements

- a) A detailed **Traffic Impact Assessment** is to be undertaken to inform the Traffic Study. The Traffic Impact Assessment is to address, but not be limited to:
- (i) The scope shall be projected traffic for the Saltwater Precinct as a whole;
 - (ii) Traffic impacts of existing neighbouring and future developments including impacts on existing down and upstream road infrastructure;
 - (iii) Road design parameters for the primary link road, secondary road and remaining internal roads;
 - (iv) The effect of noise, safety and visual amenity;
 - (v) Appropriate location of proposed roads;
 - (vi) Appropriate location of intersections (including number and type);
 - (vii) Impact on Council's existing road network;
- b) The **Traffic Study** is to comply with the following requirements:
- (i) The recommendations of any approved Traffic Impact Assessment;
 - (ii) The remaining development requirements within this section;
 - (iii) The internal road layout is to provide for an even distribution for the additional traffic;
 - (iv) All streets within residential areas are to have a low traffic volume in order to provide a reasonable standard of residential amenity;
 - (v) Road reserve widths are to accommodate WSUD measures;
 - (vi) Good connectivity between the established and new areas is to be promoted for pedestrians, cyclists and motorists and is essential in order to provide for the efficient movement (in both directions) to those destinations of significance within the broader residential community of South West Rocks;
 - (vii) Provision is to be made for bus shelters within the main primary distributor road;
 - (viii) All roundabouts must be designed to cater for bus movement;
 - (ix) Primary linkages engineered to promote greater vehicular usage, with secondary access points engineered to promote a comparatively reduced usage is encouraged; and
 - (x) Be compatible with the *South West Rocks Pedestrian Access and Mobility Plan MBK 2003*.
- c) Transport **connection points to Phillip Drive and Bell O'Connor Street** are to provide connections for pedestrians, cycle-ways and vehicles.
- (i) These points should be limited so as to control access to Phillip Drive and Belle O'Connor Street;
 - (ii) A **Traffic Impact Assessment** is to be submitted which provides adequate justification for the number of connection points to Phillip Drive and Belle O'Connor Street;
 - (iii) Where possible:
 - A primary link road through the site is to connect to Phillip Drive at a point to the north of the western half of the Saltwater Precinct, through adjoining properties to the north; and

- Any road connecting to the eastern frontage of Saltwater Precinct to Phillip Drive is to be secondary to the main linkage road through the site.
- (iv) Details demonstrating compliance with the relevant provisions of [Council's Engineering Guidelines for Subdivision and Development](#), are to be provided with respect to management measures and works required in order to maintain or improve traffic efficiency at these points; and
- (v) The main intersection with Phillip Drive must provide for a priority controlled intersection and be designed so as to accommodate the predominance of traffic through the site.
- d) A **primary road linkage route** is to be provided from the north to the south of the Saltwater Precinct. The primary road linkage route is to be connected to Phillip Drive to the north and Belle O'Connor Street to the south.
- (i) A detailed environmental and traffic engineering assessment is to be undertaken as part of the **Traffic Impact Assessment** with respect to this linkage to ascertain the number and location of intersections required to Phillip Drive and Belle O'Connor Street including any temporary access point in order to ensure that no adverse impacts arise.
- (ii) Detailed **environmental assessment** is to be provided to justify any route traversing the drainage channel (ie that area zoned E2 – Environmental Conservation).
- (iii) Details of fauna friendly road construction measures with respect to the road through the Zone E2 - Environmental Conservation land are to be included in the **Traffic Study**. In this regard, fauna fencing, under crossings and overhead corridor facilities are recommended.
- Note** - The temporary use of the extended Belle O'Connor Street road reserve and the existing access track (right of carriageway through crown land) servicing the South West Rocks Sewerage Treatment Plant (STP) could be considered as a temporary access arrangement pending acquisition and construction of the Primary link road provided the required Traffic Impact Assessment can adequately address staging of development to establish thresholds at which upgrading would be required.
- Note** - In order to facilitate appropriate and efficient traffic outcomes, consideration may be given to the preparation of a Section 94 Plan aimed at addressing the preferred road connections through private property to Kempsey Shire Council's existing urban road network system.
- e) A **predominant ring road** is to be provided around residential zoned land to:
- (i) Improve access to adjacent open space areas; and
- (ii) Ensure emergency access for bushfire protection purposes.
- f) A **Traffic Study** for the Saltwater Precinct, including a concept road layout, is to be submitted to Council and approved prior to the issue of a development consent for any development. The Traffic Management Plan is to demonstrate compliance with all of the above development requirements.

4.3 Integrated Water Cycle Management Strategy

Desired Outcomes

DO1 – An **Integrated Water Cycle Management Strategy**, incorporating a **Stormwater Management Strategy**, for the relevant part of the Saltwater Precinct, is approved by Council prior to the issue of a development consent for any development within that part of Saltwater Precinct.

Note - Stormwater issues are deemed to be the paramount issue constraining the site and are considered to be the ultimate factor that will determine the urban development pattern of the site.

DO2 - The **Integrated Water Cycle Management Strategy** generally complies with the relevant requirements of:

- [Chapter B3 – Engineering](#);
- [Chapter B5 – Stormwater Management](#);
- [Chapter B6 – Water Sensitive Urban Design](#);
- [Council’s Engineering Guidelines for Subdivision and Development](#);
- and
- The following Development Requirements.

DO3 - The **Integrated Water Cycle Management Strategy** is generally compatible with:

- *Kempsey Shire Council Urban Stormwater Management Plan 2004*;
- *Saltwater Creek and Lagoon South West Rocks Estuary Management Study and Plan WBM 2006*; and
- *Saltwater Lagoon and Catchment Stormwater Management Strategy 2007*.

DO4 - The **Integrated Water Cycle Management Strategy** is based on modelling of projected rises in ground water levels and makes appropriate recommendations in relation to clearances required between development/earthworks and the ground water table.

DO5 - The **Integrated Water Cycle Management Strategy** achieves the following objectives:

- To ensure that the volume of stormwater flow is restricted to pre-development levels by specifying maximum site coverage requirements coupled with **Water Sensitive Urban Design** measures including retention and detention systems (OSD) and harvesting onsite.
- To ensure that the **water reuse system** is integrated with Council’s **recycled water supply scheme**.
- To ensure there is a net reduction of pollutants entering the estuary or Saltwater Lake from both existing and future development for all rain events up to and including the 1 in 2 year ARI to achieve a net positive environmental outcome through development of an appropriate strategy.
- To ensure there are no changes to the natural groundwater regime that could adversely affect Saltwater Lagoon and Creek and associated wetland by either:
 - Varying the volume of flow such that there are irreversible changes to the natural environment which is reliant on groundwater and/or groundwater-surface water interaction;

- by reducing the area available for infiltration and recharging; or
 - by increasing the pollutant load above natural levels.
- To ensure that there remains after development a balance between the surface and groundwater flows that mimic the natural condition through operation, implementation, review and maintenance of a suitable detailed Water Management System.
- To ensure that the stormwater drainage system does not adversely impact flood protection measures.
- To ensure that Integrated Water Cycle Management Infrastructure is provided in line with the staging of development within Saltwater Precinct.
- To ensure that all future development does not place any additional stress on the existing natural environment of Saltwater Creek and Lagoon.

DO6 - All water treatment systems are wholly located within the residential zoned land being outside the land zoned E2 – Environmental Conservation.

DO7 - Development incorporates best practice urban water management practices and techniques for controlling stormwater quality and quantity (above and below ground), water conservation and reuse and ecosystem health.

DO8 - The design of the Stormwater Drainage System minimises the need to fill the site, as it is relatively flat.

Development Requirements

- a) **Detailed surface and ground water modelling** is to be undertaken to identify the opportunities and constraints in relation to drainage, flood protection, high water tables and protection of downstream waterways.
- b) **Prior to any development being undertaken** within the relevant part of the Saltwater Precinct, an **Integrated Water Cycle Management (ICWM) Strategy** that addresses the following is to be approved by Council:
 - (i) **Water Sensitive Urban Design (WSUD) Strategy** providing the broad concept of how the WSUD requirements contained in this chapter will be achieved;
 - (ii) Provision of guidelines for managing: site drainage, flooding, high water tables, water quality and quantity and protection of Saltwater Lake and Creek;
 - (iii) Minimisation of grading and filling;
 - (iv) Measures to be incorporated to reduce sediment and litter being washed into receiving waters during site regrading works;
 - (v) Provision of feasible integrated solutions for the management of water supply, wastewater, stormwater and groundwater throughout the Saltwater Precinct;
 - (vi) Have regard for the need to integrate with Kempsey Shire Council's Recycled Water Supply scheme without impeding and or reducing the schemes function in any way;
 - (vii) Incorporate **Demand management solutions** in the following order of preference:

- Connection of all proposed development in the Saltwater Precinct to Council's Recycled Water Supply Scheme as a first priority;
- If a situation arises where access to Council's Recycled Water Main Scheme is not physically possible then tank use on individual lots is desirable, roof runoff from all such dwellings will be collected and stored in rainwater tanks for domestic re-use including toilet flushing, laundry cold water and outdoor uses in accordance with BASIX requirements;
- Communal rainwater tanks may be investigated as an option for collection and storage of runoff for use in landscape and open space irrigation in medium density areas where the Kempsey Recycled Water Supply Scheme cannot adequately service these areas;
- Overflow from the rainwater tanks and runoff from the remainder of the development is to be treated by means of constructed wetlands. These wetlands may be augmented by the inclusion of infiltration systems, porous pavements, grassed filter strips, vegetated swales and Bio-retention systems into the treatment train. Flows from the residential precinct will be restricted to pre-development flow volumes using suitable means of detention; and
- The use of WELS Scheme related water-efficient devices (including taps, showerheads, toilets, dishwashers and washing machines) to further reduce demand across the development.

Note - IWCM can involve the integration of a large number of concepts for re-use, reduction and recycling. These options may include (but are not limited to):

- Demand management – use of water efficient appliances;
- Rainwater (roof runoff) collection and re-use (household or community scale);
- Stormwater collection and reuse where it will not affect the viability of the existing KSC Recycle Water Supply Scheme;
- Aquifer storage and recovery;
- Effluent recycling (KSC Recycled Water Scheme); and
- WSUD measures for water quality improvement.

4.4 Infrastructure Servicing Strategy

Desired Outcomes

DO1 – An **Infrastructure Servicing Strategy**, addressing water, electricity, gas, telecommunications and sewerage system supply etc for the whole Saltwater Precinct, is approved by Council prior to the issue of a development consent for any development within the relevant part of the Saltwater Precinct.

DO2 - The **Infrastructure Servicing Strategy** addresses the following:

- The relevant requirements of [Chapter B3 – Engineering](#); and
- Is compatible with the Integrated Water Cycle Management Strategy to be approved by Council, as referred to above;
- Identifies how the infrastructure servicing requirements contained in Section 5.0 are to be satisfied.
- The existing community is not to be burdened by the provision of public infrastructure required as a result of future development;

- The necessary public infrastructure is to be provided in a timely, cost efficient and effective manner;
- All proposed lots in the development are to be connected to Council's Recycle Water Supply system, where available;
- Any water harvesting program is to compliment Kempsey Shire Council's Recycled Water Supply Scheme;
- The strategy is to specify the infrastructure required for each **stage** of development;
- Identifies the capacity of existing infrastructure within the development to service the locality;
- A servicing and financial strategy must be undertaken to ensure financial viability to deliver the required upgrades in a timely manner; and
- Infrastructure is fully retained in the residential zoned land (ie Zone R1) and not land within the following zones:
 - E1 – National Parks and Reserves;
 - E2 – Environmental Conservation; and
 - RU2 – Rural Landscape Zone.

DO3 - A concept plan for the provision of trunk electricity supply is submitted and approved that demonstrates that the majority of electricity will have minimal environmental impacts.

DO4 - The Infrastructure Servicing Strategy is based on detailed analysis of the maintenance and environmental implications of providing underground services (including but not limited to electricity, water and sewerage) in the vicinity of the high water table and the subsequent recommendations from the detailed analysis.

Development Requirements

- a) A detailed **analysis of the suitability of underground services**, inclusive of building footings is to be submitted and approved by Council, prior to the release of any development consent for subdivision. The detailed analysis is to consider the potential interaction of such services with high water tables and provide recommendations in regards to ameliorative measures.
- b) A **site plan** showing where undergrounding of services (including electricity) will not be possible due to adverse impacts associated with the high water table is to be incorporated in any Infrastructure Servicing Strategy.
- c) Where necessary, the location of trunk lines, rising mains and other infrastructure likely to require special consideration is to be shown on a concept site plan and accompany the Infrastructure Servicing Strategy.

4.5 Vegetation Management Strategy

Desired Outcomes

DO1 - A Vegetation Management Strategy (VMS), for the relevant part of Saltwater Precinct, is approved by Council prior to the issue of a development consent for any development.

DO2 - The VMS Strategy complies with the relevant requirements of:

- [Chapter B9 – Landscaping](#); and
- [Chapter B10 – Tree Preservation and Vegetation Management](#).

DO3 - The VMS Strategy achieves the following objectives:

- Incorporates the existing vegetation character elements/major vegetation zones (being: mixed sedge heath, open forest and woodlands and shrublands) into the streetscapes and open space areas of future development.
- Incorporates and preserves a mixed sedge heath community in the future landscape character of the site;
- Incorporates the open space and woodlands (eucalypt species, broad leaved paperbark and banksia spp with an understorey of shrubs and grasses) as a significant coastal landscape character element in the Saltwater Precinct.
- Incorporates the shrublands (dominated by banksia spp and tea tree varieties) into a landscape character elements concentrated in the southern part of the Saltwater Precinct.
- The central drainage line and Saltwater Lagoon are revegetated with appropriate species to blend with the predominant landscape character element.
- Exposed areas of soil are revegetated with suitable endemic species.
- Identifies the vegetation works required at each stage of development of the Saltwater Precinct.
- Is taken into account in the development of Open Space Strategies for the Saltwater Precinct.
- Preserves the existing hydrology and drainage regime relative to the function of the lagoon.
- Accommodates achievement of the relevant requirements of this chapter in relation to vegetation, open space provision, landscaping and management of lands within zone E2 – Environmental Conservation.

Development Requirements

Nil.

5.0 Development Requirements – Subdivision

5.1 Compliance with Precinct Strategies

Desired Outcomes

DO1 - Development is undertaken generally in accordance with any approved master plans and strategies required by Section 4.0 of this chapter.

Development Requirements

- a) Where relevant, the lot layout within the subdivision is generally consistent with the Master Plan required by Section 4.0 of this chapter.

5.2 General

Desired Outcomes

DO1 - Development applications for subdivision demonstrate compliance with the relevant requirements of [Chapter B1 – Subdivision](#). Where there are any inconsistencies between the requirements of Chapter B1 and this chapter, the requirements of this chapter prevail.

Development Requirements

Nil.

5.3 Development Staging

Desired Outcomes

DO1 - Development within the Saltwater Precinct is staged in accordance with:

- any approved Master Plan; and
- supporting strategies/plans required by Section 4.0; and
- the provisions of any plans required by this section.

Development Requirements

- a) Major roads are to be constructed as early in the development staging as possible, in order to ensure environmental measures relating to same are implemented early and that access benefits are realized.
- b) Details of development staging are to be submitted with the development application, demonstrating that the lots will be released in an orderly and coordinated manner.
- c) The Asset Protection Zones are to be inspected for compliance prior to the release of the Subdivision Certificate for each relevant stage of the subdivision.

5.4 Road Network

Desired Outcomes

DO1 - The road network is designed and constructed in accordance with the relevant provisions of:

- Section 3.0 of [Chapter B2 – Parking, Access and Traffic Management](#);
- *South West Rocks Pedestrian Access and Mobility Plan 2003*; and
- [Council’s Engineering Guidelines for Subdivision and Development](#).

DO2 - The road network is consistent with the Traffic Study and Master Plan required/approved in accordance with Section 4.0 of this chapter, where relevant.

DO3 - All roads and open space areas within Saltwater Precinct are suitable for use by cyclists.

- DO4 - Road design accommodates livability objectives and Water Sensitive Urban Design measures consistent with the Integrated Water Cycle Management Strategy approved in accordance with Section 4.0 of this chapter.
- DO5 - Roads commensurate to the needs of each stage of the subdivision and necessary linkages to future stages are constructed prior to the release of a subdivision certificate for that stage of development.

Development Requirements

- a) The road network is to provide for a generally even distribution of traffic throughout the network.
- b) The internal road layout is to provide for an even distribution for the additional traffic.
- c) The main intersection with Philip Drive is to provide for a priority controlled intersection and be designed so as to accommodate the predominance of traffic through the site.
- d) All streets within the Saltwater Precinct are to provide a high level of residential frontage and living space with low traffic volumes, with road reserves widths a function of both livability and the integration of WSUD measures.
- e) Strong interactions with existing surrounding development are to be promoted to ensure vital transport and physical connection is established.
- f) Development consent shall not be granted unless satisfactory arrangements have been made in respect to the acquisition and construction of access to the Saltwater Precinct.

Note – it may be necessary for the developer to acquire land adjoining the Saltwater Precinct for the purposes of accommodating road reserves and entry treatments into the Saltwater Precinct.

- g) All roundabouts are to be designed to cater for bus movements.
- h) Details of fauna friendly road construction measures are to be submitted and approved by Council with respect to the road through the Zone E2 – Environmental Conservation lands. In this regard, fauna fencing, under crossings and overhead corridor facilities are recommended.
- i) All entrance points into the Saltwater Precinct are to be justified by way of detailed traffic analysis and accompanied by detailed landscape treatments and clear entrance signage.
- j) Main streets are to be aligned to provide visual connections to landmarks, vistas, views and places of public importance within and surrounding the development.
- k) The road network is to take into consideration the location of the existing Waianbar Avenue relative to Phillip Drive and connections with any proposed internal subdivision layout.
- l) The number of vehicular accesses to all future property development fronting the proposed main link road is to be minimised, in order to

alleviate impacts caused by access and egress to sites affecting traffic flow and safety.

- m) Final road design plans are to be submitted and approved by Council, in accordance with [Council's Engineering Guidelines for Subdivision and Development](#), prior to the issue of a Construction Certificate for each stage.
- n) Street names are to be applied in accordance with section 162 of the *Roads Act 1993* and current Council policy.
- o) All internal roads are to be constructed by the proponent and progressively dedicated to Council as public roads prior to the issue of a Subdivision Certificate for that relevant stage.

5.5 Integrated Water Cycle Management Plan

Desired Outcomes

- DO1 - **An Integrated Water Cycle Management (IWCM) Plan**, including a Stormwater Management Plan, is approved by Council prior to the issue of a Construction Certificate for subdivision that:
- Is consistent with the approved IWCM Strategy for the relevant part of Saltwater Precinct, required by section 4.0 of this chapter;
 - Is accompanied by "WSUD Planning and Technical Guidelines" for the relevant part of Saltwater Precinct, to be approved by Council;
 - Complies with the relevant requirements of [Chapter B5 – Stormwater Management](#);
 - Complies with the relevant requirements of [Chapter B6 – Water Sensitive Urban Design](#);
 - Complies with the relevant requirements of [Council's Engineering Guidelines for Subdivision and Development](#); and
 - Accommodates compliance with the relevant Integrated Water Cycle Management requirements contained in Section 6.0 of this chapter.
- DO2 - **WSUD Planning and Technical Design Guidelines** are approved by Council and:
- have regard to the *Constructed Wetlands Manual DECCW 1998*; and
 - have regard to the *Australian Runoff Quality Guidelines IE 2003*; and
 - comply with the relevant requirements of [Chapter B6 – Water Sensitive Urban Design](#).
- DO3 - Potential building envelopes are identified on the subdivision plan, at Council's discretion, demonstrating that sufficient site area will be available for infiltration of water.
- DO4 - A program for surface and ground water quality and quantity monitoring is adopted to measure the impacts of Integrated Water Cycle Management measures applied to the development site.
- DO5 - All water treatment systems are wholly located within the residential zoned land being outside the land zoned E2 – Environmental Conservation.

DO6 - Development incorporates best practice urban water management practices and techniques for controlling stormwater quality and quantity (above and below ground), water conservation and reuse and ecosystem health.

DO7 - The design of the Stormwater Drainage System minimises the need to fill the site, as it is relatively flat.

Development Requirements

- a) A **Water Quality Monitoring Program**, prepared by a suitably qualified person, is to be submitted to and approved by Council prior to the issue of a Construction Certificate. The program is to include, but not be limited to:
- (i) Details of a baseline study to establish the pre-development water quality, which includes weekly monitoring for four consecutive weeks and measuring the parameters identified below. The average value of each parameter is to be taken as the pre-development water quality;
 - (ii) Locations at which monitoring will be undertaken;
 - (iii) Identification of the parameters/ pollutants to be monitored at each location, including, but not limited to pH, temperature, dissolved oxygen, total nitrogen and turbidity; procedures and protocols for the sampling and analysis methodology to be undertaken;
 - (iv) A program for the periodic monitoring of the parameters/ pollutants at each of the monitoring locations. As a minimum, monitoring must occur quarterly throughout the life of the project; and
 - (v) Details of water quality limits that would indicate the project is having a detrimental effect on the water quality and a contingency plan in the event that the water quality is diminished.
- b) A **report on water quality** is to be provided to Council at regular intervals as recommended by the author of the Water Quality Monitoring Program and as determined by Council.
- c) **Water Sensitive Urban Design (WSUD) Planning and Technical Guidelines** for the relevant part of Saltwater Precinct are to be submitted and approved by Council in conjunction with any development application for subdivision. The **WSUD Planning and Technical Guidelines** are to address the following:
- (i) Where possible, drainage swales should be designed within the subdivision layout in order to provide mixed purpose benefits inclusive of retention and percolation, vegetation corridors and open space links.
 - (ii) Incorporation of treatment for ensuring that stormwater runoff entering the Saltwater Precinct from the adjoining catchment is processed such that there is a net reduction of pollutants entering any receiving waterways and water-bodies.
 - (iii) Have regard to the:
 - *Constructed Wetlands Manual DECCW 1998*; and
 - *Australian Runoff Quality Guidelines IE 2003*.

- (iv) In accordance with WSUD principles, the use of a number of stormwater treatment devices in series to form a 'treatment train' is encouraged.
- (v) Where possible, dual use WSUD measures should be implemented.
- (vi) The following WSUD stormwater management practices in relation to open space, housing layout, road layout, streetscape etc are encouraged, but not limited to:
 - Sediment Basins;
 - Bio-retention swales and basins;
 - Buffer Strips;
 - Sand filters;
 - Constructed wetlands;
 - Impervious surfaces;
 - Green roofs;
 - Riparian vegetation rehabilitation; and
 - Water quality education.
- (vii) The following WSUD demand management practices are encouraged, but not limited to:
 - Water efficient appliances and fittings;
 - Rainwater tanks;
 - Recycled grey water;
 - Stormwater harvesting;
 - Aquifer storage and recovery; and
 - Education programs.
- (viii) Maintenance cost implications arising from the adoption of any of WSUD scheme.

5.6 Subdivision Infrastructure

Desired Outcomes

DO1 - Adequate soft and hard infrastructure is provided to all new subdivision releases within the Saltwater Precinct in accordance with:

- the relevant requirements of [Council's Engineering Guidelines for Subdivision and Development](#);
- the relevant requirements of [Chapter B3 – Engineering](#);
- any approved Master Plan for the relevant part of Saltwater Precinct; and
- any approved Infrastructure Servicing Strategy and Integrated Water Cycle Management Plan for the relevant part of the Saltwater Precinct.

DO2 - An **Infrastructure Servicing Plan** is submitted and approved by Council, with any development application for subdivision.

Development Requirements

- a) Prior to the issue of a Construction Certificate for subdivision, an **Infrastructure Servicing Plan** is to be submitted and approved by Council, that:

- (i) Is consistent with any approved Infrastructure Servicing Strategy;
 - (ii) Is commensurate with the proposed stage of subdivision of the Saltwater Precinct while providing for future connection with subsequent stages;
 - (iii) Provides sufficient detail to demonstrate compliance with [Council's Engineering Guidelines for Subdivision and Development](#).
 - (iv) Address existing capacity and requirements for the development of sewerage, water, electricity, waste disposal, telecommunications and gas in consultation with relevant agencies.
 - (v) Addresses and provides the likely scope of any planning agreements and/or development contributions with Council/Government agencies (including relevant community/state infrastructure contributions).
- b) All lots created in urban areas for private occupation must be fully and individually serviced with sealed road frontage, drainage, water supply, sewerage, underground electricity and telecommunications.
- c) All utilities and services are to be designed in accordance with relevant statutory requirements, including [Council's Engineering Guidelines for Subdivision and Development](#).
- d) A Pre-Construction Dilapidation Report, prepared by a suitably qualified and experienced engineer, detailing the current structural condition of all existing and adjoining infrastructure and roads is to be submitted to the satisfaction of Council prior to commencement of construction.

5.7 Underground Services

Desired Outcomes

DO1 - Suitable measures to address any adverse impacts associated with the interaction between underground services and the water table are identified and incorporated into development.

Development Requirements

- a) The provision of underground services is to be in accordance with:
- (i) The relevant requirements of [Council's Engineering Guidelines for Subdivision and Development](#); and
 - (ii) The recommendations for ameliorative measures of any approved Analysis of the Suitability of Underground Services; and
 - (iii) Any approved Infrastructure Servicing Strategy/Plan relating to subdivision.

5.8 Development Lots

Definition

Development lots are defined as lots that are not yet developed or subdivided for their ultimate yield. It does not include lots where the proposed subdivision is to separate non-urban land from urban zoned land.

Desired Outcomes

DO1 - Proposed development lots:

- Have regard for the physical constraints imposed by the land;
- Demonstrate that the development lot can be integrated into the adopted water management system for the land;
- Are fully provided with roads, drainage (including downstream drainage to a lawful point of discharge) and service connections that are sized for the ultimate subdivision yield and land use of the management lot; and
- Incorporate necessary easements, service connections and drainage facilities necessary for the ultimate development of the surrounding land.

Development Requirements

Nil.

5.9 Open Space Management Plan

Desired Outcome

DO1 - An Open Space Management Plan for the relevant part of Saltwater Precinct, consistent with any approved Master Plan open space provisions, is submitted and approved by Council prior to the release of any development consent for subdivision.

DO2 - Open space is provided in accordance with the requirements of Section 13.0 of [Chapter B1 – Subdivision](#).

Development Requirement

- a) Open space and regeneration areas are to be staged relative to the release of lands.
- b) Details of land proposed to be used for recreational and open space purposes are to be submitted with any development application for subdivision.
- c) Details addressing the long-term management and maintenance of public open space areas and conservation areas are to be submitted with any application for subdivision and approved by Council. The details are to address:
 - (i) Ownership and control;
 - (ii) Management and maintenance funding;
 - (iii) Public access;
 - (iv) Revegetation and rehabilitation works; and
 - (v) Bushfire management.

5.10 Vegetation Management, Street Trees and Landscaping

Desired Outcomes

- DO1 - Tree preservation is undertaken in accordance with the relevant requirements of Section 6.0 of this chapter.
- DO2 - Street Trees are provided in accordance with the relevant requirements of Section 6.0 of this chapter.
- DO3 - A Vegetation Management Plan is submitted to and approved by Council prior to the issue of a development consent for subdivision, unless otherwise agreed by Council.

Development Requirements

- a) Where possible, native vegetation (canopy level) shall be provided, within pocket parks and street verges to create a 'stepping-stone corridor' for native fauna. Details of any planting shall be provided within a detailed **Landscape Plan** submitted with a development application for subdivision of land.

5.11 Solar Access

Desired Outcomes

- DO1 - Lot layout and orientation complies with the requirements of Section 6.3 of [Chapter B1 – Subdivision](#) in relation to maximizing solar access to lots.

Development Requirements

Nil.

5.12 Minimum Lot Size

Desired Outcomes

- DO1 - Minimum lot sizes comply with the relevant development standards of Kempsey Local Environmental Plan 2013.
- DO2 - A range of lot sizes are provided generally in accordance with any approved Master Plan for Saltwater Precinct (refer to Section 4.0 of this chapter for Master Plan requirements).

Development Requirements

Nil.

5.13 Subdivision Plans

Desired Outcomes

DO1 - Subdivision plan showing sufficient and necessary details are submitted with development applications.

Development Requirements

- a) Subdivision plans are to show the following:
- The location, boundary dimensions, site area and north point of the land, and names of roads fronting the land;
 - Title showing the description of the land with lot and DP numbers etc;
 - Existing and proposed subdivision pattern including all measurements and site areas and existing and proposed allotments;
 - Location and details of all proposed roads and footpaths;
 - Location of all structures proposed and retained on site;
 - Cross sections of roads, including gradients, widths, road names, footpaths etc;
 - Existing and proposed finished levels in relation to roads, footpaths and structures;
 - Location and details of access points to the subdivision;
 - Existing vegetation on the land and vegetation to be retained;
 - Location of services and infrastructure, and proposed methods of draining the land;
 - Any easements, covenants or other restrictions either existing or proposed on the site;
 - Type of subdivision proposed (torrens, strata and/or community titling); and
 - Any other relevant matters referred to in [Chapter B1 – Subdivision](#) in relation to information to be shown on a subdivision plan.

6.0 Development Requirements – General

6.1 Compliance with Pre-development Strategies

Desired Outcomes

DO1 - Development is undertaken generally in accordance with any approved master plans and strategies required by Section 4.0 of this chapter.

Development Requirements

Nil.

6.2 Development Staging

Desired Outcomes

DO1 - Development is contained wholly within the relevant stage of development of the overall Saltwater Precinct.

DO2 - Sufficient infrastructure, including but not limited to roads, water supply, sewerage, stormwater and electricity is available to the development commensurate with the stage of development of the overall Saltwater Precinct and in accordance with any approved Infrastructure Strategy/Plan.

Development Requirements

Nil.

6.3 Design Objectives

Desired Outcomes

DO1 - Design of the overall development of the Saltwater Precinct and development on individual allotments achieves the following:

- The retention and protection of significant typical natural features;
- Respects the inherent values and nature of the site;
- Provides for the natural infiltration of water;
- Retains the integrity of the existing topography;
- Retains and responds to significant view lines;
- Retains the integrity, character and function of the existing South West Rocks Town Centre;
- Establishes a layout which is informal and responds to coastal village values;
- Incorporates a sustainable landscape concept;
- Creates an individual sense of place within the South West Rocks context; and
- Retains a generally low scale built form throughout the Saltwater Precinct.

DO2 - Development is designed to address:

- Any relevant objectives and measures referred to in the Saltwater Creek Estuary Management Study and Plan; and
- Any issues arising from the Kempsey Coastal Processes and Hazards Definition Study.

Development Requirements

Nil.

6.4 Parking and Access

Desired Outcomes

DO1 - Access and parking complies with the relevant requirements of:

- Section 5.4 of [Chapter C1 – Residential Development](#);
- [Chapter B2 – Parking, Access and Traffic Management](#);
- [Council’s Engineering Guidelines for Subdivision and Development](#); and
- Any relevant Master Plan and Traffic Study approved in accordance with Section 4.0 of this chapter;
- Subject to alterations presented in the following Development Requirements.

DO2 - The design of vehicular access driveways:

- Maximizes solar access opportunities;

- Contributes to and is consistent with the surrounding coastal environment rather than a suburban or metropolitan character;
- Reduces hard stand areas visible from the street;
- Minimises the amount of impervious surfaces; and
- Is consistent with any Master Plan or strategies approved in accordance with Section 4.0 of this chapter.

DO3 - The number of vehicular accesses to the proposed main link road is minimised, in order to alleviate impacts caused by access and egress to sites affecting traffic flow and safety.

Development Requirements

6.4.1 Parking and Manoeuvring

- a) In the case of medium density and dual occupancy developments, a car wash space must be provided.
 - (i) The car wash space can be shared with visitor spacing where signage is provided clearly demonstrating the dual use; and
 - (ii) The car wash space should be designed to allow infiltration of water, in lieu of hard stand paving.

6.4.2 Driveways

- a) Driveways and garages are to be located on the south or west side of associated houses, where practicable, in order to create the opportunity to provide greater exposure for north-facing living spaces and private open spaces.
- b) Where lots have a north-south orientation, driveways are to be located on the western side of the lot, where practicable.
- c) Where lots have an east-west orientation, driveways are to be located on the southern side of the lot, where practicable.
- d) Access ways are to be designed, surfaced and sloped to manage stormwater in accordance with any approved Stormwater Management Plan/ Integrated Water Cycle Management Plan.
 - (i) Permeable paving or drainage to rain gardens are to be utilised to minimise the amount of impervious area in the development.
- e) Driveways and paths should be constructed using materials that blend with or complement the surrounding streetscape. They must be neutral colours to match local materials. Vibrant or bright colours are not permitted. Driveway finishing is to be exposed aggregate concrete or other sealed surfaces to maintain a narrative and unique character identity to the area.

6.4.3 Access to Main Link Road

- a) Access to lots directly from any major link road through the precinct is to be avoided. Instead, a parallel service road is to be utilized to provide access to lots fronting the main link road.

6.5 Integrated Water Cycle Management

Desired Outcomes

- DO1 - The design of stormwater systems, water supplies and sewerage systems with individual developments:
- Is consistent with any approved Master Plan and Integrated Water Cycle Management (IWCM) Strategy approved in accordance with Section 4.0 of this chapter;
 - Complies with any IWCM Plan approved in accordance with Section 5.0 of this chapter, relevant to the part of the Saltwater Precinct being developed;
 - Complies with any Water Sensitive Urban Design (WSUD) Planning and Technical Design Guidelines approved in accordance with Section 5.0 of this chapter;
 - Complies with the relevant requirements of [Chapter B5 – Stormwater Management](#);
 - Complies with the relevant requirements of [Chapter B6 – Water Sensitive Urban Design](#); and
 - Complies with the relevant requirements of [Council’s Engineering Guidelines for Subdivision and Development](#).
- DO2 - Water quality targets, pollutant loads, acute impacts and visual amenity is maintained are achieved and maintained so that there is no net increase in pollutant loads.
- DO3 - Hydrological processes are managed in the Saltwater Precinct so that:
- Peak flows do not exceed the natural conditions of the site;
 - Environmental flows in relation to surface and groundwater are maintained;
 - Flow duration and velocity is managed to maintain downstream waterway morphology;
 - Continuing filtration maintains ground water systems at pre-development levels;
 - Frequency of flows from Saltwater Precinct are equivalent to the natural case.
- DO4 – The Water Sensitive Urban Design system:
- Is functional and operational;
 - Incorporates design for maintenance;
 - Is maintained in accordance with utility placement maintenance plans;
 - Incorporates multiple use corridors; and
 - Is designed to minimise life cycle costs.
- DO5 - The Water Sensitive Urban Design system is designed to minimise adverse effects on amenity by:
- Protecting sensitive areas;
 - Preserving natural drainage systems; and
 - Integrating the built environmental with the landscape.

Development Requirements

6.5.1 General

- a) Where no subdivision has been undertaken, an Integrated Water Cycle Management (IWCM) Plan shall be prepared for the Saltwater Lagoon and Creek catchment area and adopted for the development of the relevant

part of the Saltwater Precinct. Otherwise, the IWCM Plan approved as part of the subdivision is to be adhered to.

- b) Stormwater detention and reuse measures are to be adopted so as to control and reduce demand on the public system, in accordance with the *Saltwater Lagoon and Catchment Stormwater Management Strategy 2007*.

6.5.1 Stormwater Modelling

- a) The performance of stormwater quality treatment systems comprising WSUD systems is to be demonstrated using the Model for Urban Stormwater Improvement Conceptualisation (MUSIC) tool and modelling must be undertaken concurrent with concept and detailed design.

6.5.3 Location of Stormwater Infrastructure

- a) Stormwater quality devices shall be located within the development footprint in accord with:
 - (i) *Saltwater Lagoon and Catchment Stormwater Management Strategy 2007*; and
 - (ii) the developed WSUD Planning and Technical Guidelines.
- b) All Water quality control facilities are to be sited wholly within the residential zoned land such that they do not have any deleterious impact upon lands not zoned for residential development.
 - (i) All water treatment systems are to be wholly located outside the land zoned E2 – Environmental Protection.

6.5.4 Water Table

- a) Detailed investigations are required in respect of the suitability of proposed services' siting and design and building design with respect to high water table levels upon the site, having regard to the effects of climate change.
- b) The hydrological integrity of the adjacent Saltwater Lagoon is to be maintained, through the undertaking of ground water modelling across the site in order to gain an understanding of an overall management model. Monitoring of groundwater is to continue throughout the approval process and during construction.
- c) All drainage is to be at or above the ground water level.

6.5.5 WSUD Measures

- a) In accordance with WSUD principles, the use of a number of stormwater treatment devices in series to form a 'treatment train' is encouraged.
- b) The stormwater treatment train for each sub-catchment is to include, but not be limited to, a combination of the following suggested measures:
 - (i) Compliance with BASIX;
 - (ii) Bio-retention devices within constructed swales where slope <5%;
 - (iii) Gross Pollutant traps (GPTs);
 - (iv) Sedimentation basins at the inlet zone for the constructed wetlands;

- (v) Constructed wetlands with a minimum 30% soft-edge treatment;
 - (vi) Diffuse low-flow discharge (<Q3month) and stormwater treatment within the rehabilitation areas;
 - (vii) Infiltration trenches and basins and or other approved methods to recharge the groundwater system, such that the change in the groundwater levels will not lead to irreversible changes in the existing flora habitat; and
 - (viii) High-flow bypass channels to protect the rehabilitation areas.
- c) Where possible, dual use WSUD measures should be implemented.
- d) Constructed stormwater wetlands should be designed to ensure a healthy ecosystem and also include for the avoidance of stagnant water, maintenance of an aerobic water column, and be able to drain the wetland if necessary in accordance with the Constructed Wetlands Manual (published by the Department of Land and Water Conservation, 1998).

6.5.6 Water Quality Monitoring

- a) Water quality monitoring is to be undertaken in accordance with the following:
- (i) In accordance with any water quality monitoring program approved as in accordance with Section 5.0 of this chapter; and
 - (ii) Monitoring of downstream receiving environments is to occur during the construction phase and during the revegetation establishment phase (up to 6 months after development is completed).

6.6 Infrastructure Provision

Desired Outcomes

DO1 - Individual developments are provided with sufficient infrastructure to service the needs of the development in accordance with:

- Any relevant approved Infrastructure Servicing Strategy and Infrastructure Servicing Plan;
- The relevant requirements of [Chapter B3 – Engineering](#); and
- The relevant requirements of [Council's Engineering Guidelines for Subdivision and Development](#).

DO2 - Any necessary easements are provided to protect services within allotments.

Development Requirements

Nil.

6.7 Vegetation

Desired Outcomes

DO1 - Major vegetation communities in the Saltwater Precinct (ie mixed sedge heath, open forest and woodlands and shrublands) are maintained and new landscaping within the street reserve and open space areas reflects

the vegetation community appropriate to the location within the Saltwater Precinct.

DO2 - Development complies with:

- Any approved Vegetation Management Strategy/Plan;
- [Chapter B9 – Landscaping](#); and
- [Chapter B10 – Tree Preservation and Vegetation Management](#).

Development Requirements

- a) **Detailed regeneration, rehabilitation and maintenance plans** are to accompany any development proposal and be approved prior to commencement of any works. Works relating to these plans shall be carried out commensurate with the staging and scale of development and in accordance with an agreed maintenance program.

Note – Council may waive this requirement should the approved VRRM Strategy contain sufficient detail to regulate vegetation for the proposed development.

6.8 Environment, Safety and Health

Desired Outcomes

DO1 - Development complements the conservation of **biodiversity** by protecting areas of high conservation value.

DO2 - Development responds appropriately to the environmental, natural constraints of the site including but not limited to: erosion, flooding, climate change, bushfire, acid sulfate soils, noise, odour and mosquito control and protects areas of natural and cultural significance.

DO3 - Development does not conflict with the intended outcomes for 'healthy modified lakes' as specified in the publication *Coastal Lakes: Independent Enquiry into Coastal Lakes, Healthy Rivers Commission Final Report on 2002*.

Development Requirements

- a) All SEPP 14 areas shall be free of any drainage infrastructure, with environmental enhancement to be undertaken, where relevant.
- b) The E2 – Environmental Conservation zoned lands should only be impacted upon in a manner consistent with the objectives of the zone. In this regard, opportunities to develop this land will be restricted to retention and rehabilitation of the land in order to preserve the natural buffer that exists between land available for residential development and valuable estuarine habitat.
- c) All drainage controls and public open space are to be restricted to the land zoned R1 – General Residential.
- d) For any development or works within land Zoned E2 – Environmental Conservation, a detailed **Vegetation Management Plan** shall be prepared in consultation with Council and have regard to the following:

- (i) The recommendations of any Vegetation Management Strategy approved in accordance with Section 4.0 of this chapter;
- (ii) Standard of works within the E2 – Environmental Conservation zoned lands;
- (iii) Maintenance of any works / open space in this area;
- (iv) An appropriate monitoring regime for dealing with issues that may arise, including but not limited to, outbreaks of weed infestation, predation by domestic pets, uncontrolled access by people into the Conservation Area;
- (v) Outline measures for the conservation of existing wildlife corridor values and/or connective importance of any vegetation on the subject land;
- (vi) Address measures to protect and manage the riparian corridor and adjacent aquatic habitats;
- (vii) Assess the impacts of any native vegetation clearing including details of any offset strategy, where relevant, to ensure that there is no net loss of native vegetation;
- (viii) A protocol for the salvage and re-use of hollow bearing trees; and
- (ix) Indicate the arrangements for any dedication and ownership of lands (timing of dedication, standard of dedication etc).

Note - There are complexities with respect to the future ownership and maintenance of these lands, with relevant parties including the developers, Council and the Department of Environment Climate Change & Water (DECCW).

- e) In respect to lands zoned E2 – Environmental Conservation:
 - (i) These lands are to be dedicated to Kempsey Shire Council or NSW Office of Environment and Heritage (OEH) at the completion of the final stages of the development;
 - (ii) The developers are to be responsible for the management and ongoing maintenance in accordance with any approved Plan of Management, of these lands until transferred to Council ownership;
 - (iii) An **Environmental Management Plan** in relation to these zoned lands, must be prepared that addresses but not limited to the following key points:
 - Access Control
 - Vegetation Management
 - Bushfire Management
 - Low key recreation facilities, which are to be associated with the restoration of habitat in the E2 – Environmental Conservation Zone.
 - Satisfactory arrangements are to be made in respect to the ongoing costs of maintaining the E2 – Environmental Conservation zoned land.
- f) Areas outside of the development footprint are to be regenerated by the developer consistent with an agreed staging plan and an agreed (with Council) **Vegetation Management Plan** or **Environmental Management Plan**.
- g) An **Environmental Management Plan** in relation to all zoned lands, must be prepared that addresses but not limited to the following key points:

- (i) Integrated Water Cycle Management (including WSUD and groundwater);
- (ii) Proximity to Sewage Treatment Works;
- (iii) Air and Noise Management;
- (iv) Energy Management;
- (v) Transport Management;
- (vi) Biodiversity Management; and
- (vii) Waste removal and waste management.

Note - Where a proposal will affect the vegetation or environmentally sensitive areas identified in the Saltwater Precinct, the Development Application may need to be accompanied by a 7 Part Test in accordance with Section 5A of the Environmental Planning and Assessment Act 1979 (as amended).

- h) The site re-vegetation and regeneration program is to be **staged** and linked to the subdivision application process. Each **Subdivision** Application will identify the area to be subject of these works. A **Re-vegetation Plan** must be provided for each of the identified areas.
- i) A **Construction Management Plan**, which outlines traffic and pedestrian management during construction and management of impacts on amenity of adjoining properties and appropriate mitigation measures including noise, dust and sediment and erosion controls, is submitted to and approved by Council prior to the issue of a construction certificate.

6.9 Tree Preservation

Desired Outcomes

DO1 - The removal of trees and vegetation is undertaken in accordance with the relevant requirements of [Chapter B10 – Tree Preservation and Vegetation Management](#).

Development Requirements

- a) Where applicable, a **Tree Survey Plan** is to be submitted with each Development Application. The Tree Survey Plan is to identify the location, type and condition of all existing trees, and is to indicate those trees proposed to be removed, including the justification for their removal, and those to be retained.
- b) Where trees are to be retained, details of any protection methods shall be submitted with the Development Application. Priority should be given to retention of trees that have biodiversity value, particularly hollow bearing trees. These and other significant trees are to be retained wherever possible within public and community parks, streetscapes and riparian corridors.
- c) Any trees not approved for removal are to be protected in accordance with the relevant requirements of [Chapter B10 – Tree Preservation and Vegetation Management](#), during construction and beyond.

6.10 Street Landscaping

Desired Outcomes

DO1 - Street trees and landscaping:

- Contributes to a quality coastal landscape theme for the Saltwater Precinct; and
- Complies with the relevant requirements of [Chapter B9 – Landscaping](#), particularly Section 5.0.

Development Requirements

- a) Any Coast Banksias planted within the street reserve are to be carefully located to complement the existing streetscape and produce shade whilst minimizing interruption to views from future residences and the functionality of pedestrian and cycleways.

6.11 Private Landscaping

Desired Outcomes

DO1 - A consistently high quality coastal landscape is provided and presented to the street.

DO2 - Landscaping complies with the relevant requirements of:

- [Chapter B9 – Landscaping](#); and
- Section 5.7 of [Chapter C1 – Residential Development](#).

DO3 - Landscaping is provided to:

- enhance the street character;
- improve the relationship of a building to its surroundings;
- provide privacy and shade;
- preserve important landscape features and retain local biodiversity;
- facilitate the energy and solar efficiency of individual dwellings; and
- reduce water usage and demand on water storage infrastructure.

Development Requirements

- a) Planting of endemic native vegetation is encouraged to frame and soften the appearance of built form within the property.
- b) Vegetation should be planted in a way that frames desirable views natural features and bush conservation areas, rather than screening or blocking views.
- c) The amount of sealed and hard paved surfaces in the front garden area is to be provided in accordance with the provisions of the approved IWCM Plan through a 30m² minimum permeable surfaces to maximise absorption of rainwater in soil.
- d) Indigenous plants of local provenance must be planted in the front garden area. Plants classified as environmental weeds are not to be planted.
- e) To showcase indigenous plant species, groups of the same species are to be planted. Plants are to be selected to contrast and complement built form.

- f) The minimum total area of each lot to be landscaped is to accommodate the maximum site coverage requirements within Section 6.28 of this Chapter.
- g) Specific areas of a dwelling, such as living rooms and private open space, are targeted to receive sunlight in winter and shade in summer through the location and types of plants used. There should be minimal interference to the solar access of adjoining properties and types of plants used.
- h) There is to be minimal interference to the solar access of adjoining properties.
- i) A detailed landscape plan (prepared by an appropriately qualified person) must accompany any application for dual occupancy or medium density housing.

6.12 Fencing

Desired Outcomes

DO1 - Fencing is designed and provided to:

- improve the visual appearance of the street;
- be compatible with the desired coastal character theme of the precinct;
- protect vegetation conservation zones; and
- encourage usage and passive surveillance of open space linkages.

Development Requirements

- a) All dwellings must provide side and rear fencing in accordance with the *Dividing Fences Act 1991*, to a maximum height of 2.0m, with the exception of side fencing forward of the front building line, where side fencing is to comply with front fence controls below.
- b) Fencing forward of the front building line:
 - (i) is not to exceed 1.2m, with the exception of where variation can be justified on the basis of outstanding design;
 - (ii) must be located on the property boundary line/s;
 - (iii) must provide for a minimum 25% (of the width) material variation; and
 - (iv) no front fencing is to be provided in the vicinity of Pressure Sewer Systems in order to allow maintenance access to the sewage units.
- c) A minimum of 25% of the front boundary fencing must be recessed to a depth of no greater than 1m. The recesses are to be planted out with low level planting (0-1.2m height) to soften the visual appearance of the front boundary fence.
- d) Where rear fencing is adjacent to open space linkages, fencing must be at least 50% transparent and lockable gates are permitted.

6.13 Public Open Space

Desired Outcomes

DO1 - Public Open Space:

- Preserves important landscape features and environmental areas;
- Retains biodiversity within built up urban areas;
- Encourages a sense of place;
- Is simple and low key in appearance;
- Invites positive community social interaction;
- Forms part of the network of pedestrian/cycle linkages within the Saltwater area; and
- Integrates with Water Sensitive Urban Design treatments provided within the Saltwater area.

DO2 - Residents can easily access green space and natural areas.

DO3 - Local parks are provided at a size, location and quality commensurate with the size and nature of the development.

Note - One guideline for open space provision is 1.3 ha per 1000 head of population. The final lot yield, population and amount of open space required for the Saltwater precinct will be dependent upon the outcome of the recommendations of the traffic and water cycle management systems assessments.

DO4 - Places of natural, historic and cultural significance are preserved.

DO5 - Landscaping within public open space areas contributes to a landscape theme of a natural coastal landscape.

DO6 - Public open space is provided in accordance with a Master Plan approved in accordance with Section 3.0 of this chapter.

Development Requirements

- a) An Open Space Management Strategy is to be submitted with any development application for subdivision or a Master Plan.

Note - The size and location of parks is to be agreed with Council prior to submission of a development application. Council may agree to defer the need for the submission of an Open Space Management Strategy for small scale subdivisions.

- b) Landscaping within public open spaces is to:

- (i) Be influenced and respond to features of the surrounding natural environment;
- (ii) Utilise indigenous vegetation of local provenance;
- (iii) Provide edges that are densely planted with a complex of low shrubs, native grasses and sedges; and
- (iv) Be in accordance with the requirements of Section 6.0 of [Chapter B9 – Landscaping](#).

Note – The level of detail to be shown on any landscape plans will be dependent on the scale of development and the stage of planning that the

development is in (eg Master Plans will require only a concept landscape plan).

- c) The design of public open space to create a functional, safe and attractive place for all, through selection of appropriate hard and soft elements (eg: paving, furniture, edging, lighting and plants).
- d) Landscaping provided in open space areas is to be compatible with the existing vegetation zone (eg mixed sedge heath, open forest and woodlands and shrublands) in the locality.
- e) A Landscape Management and Maintenance Plan is to be developed to guide appropriate management and maintenance of open space and public domain areas within the R1 – General Residential Zone.

6.14 Location of Uses

Desired Outcomes

DO - Land uses are located generally in accordance with locations identified in any approved Master Plan for the relevant part of the Saltwater Precinct.

Development Requirements

Nil.

6.15 Buffer Zones

Desired Outcomes

DO1 - Development is sited so that there is a sufficient buffer to preserve the amenity and safety of the development to the following:

- The South West Rocks Sewerage Treatment Works;
- Bushfire Prone Vegetation;
- Saltwater Lagoon;
- Stands of Vegetation on the site to be protected;
- Flood affected lands, taking into consideration sea level rise and coastal recession; and
- Any other sensitive site features.

Development Requirements

- a) All development proposals are to comply with Planning for Bushfire Protection 2006, or updated equivalent.
 - (i) Perimeter roads are preferred in respect of those lands on the edge of the residential zoned land, whilst details are to be provided at the development application stage with respect to the provision of emergency vehicle access to those lots not separated from the bushfire risk area by perimeter roads.
- b) No development is to occur on land within 220m from the South West Rocks Sewerage Treatment Plant (STP) in order to protect future residents from odour and noise emanating from the STP.

Note – At the time of adoption of this DCP, investigations have indicated that the required buffer to the South West Rocks Sewerage Treatment Plant (STP) may be reduced to 150m. It is advisable to contact Council's Department of Water for the most up-to-date buffers to the STP.

- c) No building works are to occur within a 50m buffer to land zoned E2 – Environmental Conservation.
- d) APZ's and firetrails for bushfire protection are to be located wholly outside of land zoned E2 – Environmental Conservation.

6.16 Cultural Heritage

Desired Outcomes

DO1 - Development complies with the relevant provisions of [Chapter B12 – Aboriginal Heritage](#).

Development Requirements

Nil.

6.17 Contamination

Desired Outcomes

DO1 - Development responds appropriately to any land contamination on the site.

Development Requirements

- a) Prior to any development of lands adjacent to Philip Drive, validation of all **contamination** remediation must be provided to the consent authority.

6.18 Acid Sulfate Soils

Desired Outcomes

DO1 - Development complies with the relevant requirements of clause 7.1 of Kempsey LEP 2013.

Development Requirements

- a) A detailed Acid Sulfate Soil Management Plan for the entire site shall be prepared by a qualified person in accordance with the *Acid Sulfate Soil Assessment Guidelines* (Acid Sulfate Soil Management Advisory Committee, 1998). The ASS Management Plan shall cover the entire site and be submitted to the satisfaction of Council prior to the issue of a Construction Certificate for the proposed development.

6.19 Flooding/Minimum Floor Levels

Desired Outcomes

DO1 - Development is not adversely affected by flooding, taking into account the impacts of the following on local flooding:

- Saltwater Lagoon;
- Obstructions within Saltwater Creek;
- Entrance conditions to Saltwater Creek;
- The high water table within the Saltwater Precinct; and
- Sea level rise and coastal recession.

DO2 - Development complies with the relevant requirements of:

- Council Policy No 1.1 – Development Control Policy; and
- Council Procedure No 1.1.11 – Flood Risk Management.

DO3 - Development provides sufficient clearance to existing and projected groundwater levels having regard to ongoing groundwater monitoring.

Development Requirements

a) Minimum floor levels shall comply with the greatest of the following:

- (i) Any minimum floor levels determined in accordance with Council Policy No 1.1.11 – Flood Risk Management;
- (ii) Residential Flood Planning Level (RFPL) is to be 3.5m AHD for land north of the Saltwater Lagoon and Creek and 3.6m AHD for land south of the Saltwater Lagoon and Creek;
- (iii) A 0.5 meter freeboard shall be added to the abovementioned RFPL to establish a minimum Floor Level for the residence. A minimum floor level equivalent to the PFPL plus 500mm shall apply to all residential development;
- (iv) In order to ensure consistency on land between 3.5m and 4.1m AHD (i.e. above the RFPL) a minimum floor level of 4.1m AHD shall apply to all residential development; and/or

Note – Please be advised that additional flood related development controls will apply to developments in low risk areas which are particularly vulnerable to emergency response (eg aged care facility, emergency evacuation centres, hospitals and major utilities etc).

b) Development complies with any recommendations of the Integrated Water Cycle Management Strategy approved in relation to Section 3.0 in relation to clearances between development/earthworks and the water table.

6.20 Bushfire

Desired Outcomes

DO1 - Development complies with the relevant provisions of *Planning for Bushfire Protection 2006* (RFS).

Development Requirements

- a) All Asset Protection Zones and fire trails are to be contained within land zoned R1 – General Residential and not in land zoned E2 – Environmental Conservation.
- b) A Fire Management Plan is to be prepared in coordination with any Vegetation Management Plan for the zone E2- Environmental Conservation lands. The management provisions of the Fire Management Plan are to address those measures required to meet the provisions of Section 63 of the *Rural Fires Act 1997* whilst specifically recognising the need to protect the plant communities within the zone E2 – Environmental Conservation lands.

6.21 Geotechnical

Desired Outcomes

DO1 - Development applications provide an assessment of any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations that address these limitations.

Development Requirements

Nil.

6.22 Acoustic Amenity

Desired Outcomes

DO1 - Appropriate noise attenuation measures are implemented within the development in order to result in appropriate indoor noise levels in relation to noise generated from the South West Rocks Sewerage Treatment Plant (STP) and any link road.

Development Requirements

- a) All development proposals within the vicinity of any link road will require the preparation of a **Noise Impact Assessment** by an appropriately qualified person, to demonstrate that noise emanating from any link road will not have an unacceptable impact on residential amenity.
- b) No Noise Impact Assessment will be required in relation to the STP, provided noise sensitive development is located outside of nominated buffers to the STP.

6.23 Crime Prevention

Desired Outcomes

DO1 – Development complies with the relevant provisions of Chapter B15 – Crime Prevention Through Environmental Design.

Development Requirements

Nil.

6.24 Earthworks

Desired Outcomes

DO1 - All earthworks comply with the relevant requirements of [Chapter B4 – Earthworks and Sediment Erosion Control](#).

DO2 - The site is developed commensurate with the constraints applicable to the site.

Development Requirements

- a) For works beyond the external walls of buildings the maximum cut and fill is to be as specified as in the Integrated Water Cycle Management Plan having regard to the presence of acid sulphate soil and high water table.
- b) Retaining walls and landscaping are to be installed to mitigate the effects of all site works.
- c) Any cut and fill that extends to the property boundary is to have no effect on adjoining properties in terms of drainage, stormwater flow and vegetation loss or damage.
- d) The proponent is to submit to Council, a Geotechnical Specification for the supply and placement of any fill materials, prepared by a suitably qualified person and shall include, but not be limited to, the following:
 - (i) Identification of the proposed source of fill;
 - (ii) Method of delivery of fill material to the site;
 - (iii) Geological/geotechnical analysis of the proposed fill material to determine suitability;
 - (iv) Quality Assurance Regime; and
 - (v) Any other relevant matters.
- e) Haulage routes for the importation of fill are to be agreed to by Council, prior to the issue of a Construction Certificate for filling.
- f) Fill shall be selected in accordance with Australian Standard 3798-2007 Guidelines on Earthworks for Commercial and Residential Development, or any updated standard.

6.25 Erosion and Sediment Control

Desired Outcomes

DO1 - Sediment erosion control is undertaken in accordance with the relevant requirements of [Chapter B4 – Earthworks and Sediment Erosion Control](#).

DO2 - Erosion and sediment loss from building sites is minimized so as not to

contribute to the degradation of waterways and water-bodies.

Development Requirements

- a) All run off from surrounding land is to be diverted away from the land to be disturbed.
- b) Sediment control measures are to be installed prior to any excavation that takes place. These controls must be maintained in a functional condition during construction and until the site landscaping is established.
- c) Either a Soil and Water Management Plan or an Erosion and Sediment Control Plan is to be submitted with development applications involving site works and are to be prepared in accordance with:
 - (i) the Landcom publication "Managing Urban Stormwater, Soils and Construction 2006";
 - (ii) [Chapter B4 – Earthworks and Sediment Erosion Control](#); and
 - (iii) any special provisions identified in the Integrated Water Cycle Management Plan (particularly in respect to WSUD measures).

6.26 Biting Midge and Mosquito Control

Desired Outcomes

- DO1 - Nuisance caused by mosquitoes and biting midge do not result in a significant adverse impact on the amenity of residents within Saltwater Precinct.
- DO2 - Stormwater and wetlands within reasonable proximity to development are designed to:
- Avoid stagnant water;
 - Maintain an aerobic water column; and
 - Have the ability to drain the wetland, if necessary;
 - For the purpose of managing mosquito and biting midge breeding habitat.

Development Requirements

- a) A biting midge and mosquito assessment is to be undertaken prior to any development consent being issued. Mitigation measures should be proposed to reduce identified issues having regard for the Stormwater Management Strategy/Plan.

Note - Upon receipt of a development application, where it has been identified as having a biting insect problem, the developer is required to outline in detail how the problem will be minimised. Where insect problems are considered severe, the development application must be accompanied by a report from a person qualified in addressing the biting insect problem in detail.

- b) Required mitigation measures are to be incorporated into the development. Such mitigation measures may include:
 - (i) Identification of open buffer zones between insect breeding areas and dwelling houses by way of correct seasonal field work.

- (ii) Land fill operations to elevate subdivisions above flood height should be carried out with due regard to minimising impedance of surrounding drainage systems.
 - (iii) Roadway embankment construction should be designed to eliminate (if possible) any standing water impoundment or redirection of water flows into potential mosquito breeding areas.
 - (iv) Consideration of stormwater drainage design and route. Drains should be designed to avoid silt accumulation and be free draining. Exit points from drains into waterways or wetlands should be designed to avoid habitat changes at discharge points such as will occur if organically enriched drainage from urban areas is directed into mangrove areas or tea tree wetlands. Misdirected stormwater into these habitats can create new midge and mosquito breeding sites or increase existing breeding by favouring certain aquatic and semi aquatic vegetation species that restrict drainage flow. Silt accumulation at stormwater estuary discharge points, combined with regular low flow water discharge particularly suits the biting midge species *C. sumimmaculatus*. Care must be taken to avoid increasing tidal influence back up drains into freshwater wetlands as this increases salt marsh mosquito favourability.
 - (v) Consideration of dominant prevailing winds that may distribute biting insects, particularly biting midge, when siting accommodation and evening recreation areas.
 - (vi) Landscape layout and vegetation species should be selected to minimise insect harborage and corridors. Tall lightly foliated species with a high canopy such as eucalypts and palms tend not to harbour biting insects and allow good air circulation at ground level. Native shrubs such as grevillea, banksia and casuarinas planted not too densely are suitable for further landscape or screening use. Heavily foliated plants, particularly those requiring frequent watering as used in "Hawaiian style" well shaded gardens should be avoided near accommodation areas or evening recreation areas.
- c) Ongoing monitoring of stormwater system designed for the development (particularly the drainage swales and detention basins) is to be undertaken at regular intervals to identify any potential increase in mosquito breeding opportunities and to appropriately deal with the risk of mosquito activities.

6.27 Commercial Development

Desired Outcomes

DO1 - Commercial development complies with the relevant provisions of [Chapter C6 – Commercial Development](#).

Development Requirements

Nil.

6.28 Site Coverage

Desired Outcomes

DO1 - The site coverage of development encourages:

- An appropriate scale of development in keeping with the natural character of the area; and
- To assist in achieving Integrated Water Cycle Management Plan and Water Sensitive Urban Design requirements for stormwater infiltration.

Development Requirements

- a) Site coverage of all building elements is to ensure that the maximum impermeable site areas is as follows:
- (i) 70% of the allotment – On lot sizes less than 500m².
 - (ii) 65% of the allotment – On lot sizes between 500m² and 750m² inclusive.
 - (iii) 60% of the allotment – On lot sizes greater than 750m².

6.29 Advertising Signs

Desired Outcomes

DO1 - Any advertising signs comply with the relevant provisions of [Chapter B18 – Advertising and Tourist Signs](#).

Development Requirements

- a) No advertising signs are installed on land Zoned E2 – Environmental Conservation.

7.0 Development Requirements - Residential Development

7.1 General

DO1 - Residential development complies with the relevant provisions of Chapter C1 – Residential Development that apply to development in the Low Density Residential Precinct, in addition to the following requirements.

DO2 - Residential development complies with the relevant provisions of Sections 5.0 and 6.0 of this chapter.

DO3 - Residential development is undertaken in a manner consistent with any pre-development strategies approved in accordance with Section 4.0 of this chapter.

7.2 Housing Form

Desired Outcomes

DO1 – A diverse range of housing types are provided in the Saltwater Precinct to

cater for varying levels of affordability, accessibility and tenure type.

Development Requirements

- a) Any adaptable and accessible housing provided is to be generally in accordance with Federal Governments Universal Housing Design Guidelines and Australian Standard for Adaptable Housing.
- b) Multi-unit development is to provide a mix in the size, type and configuration (eg number of bedrooms) of dwellings.

7.3 Building Mass/Bulk

Desired Outcomes

DO1 - Building mass and bulk is compatible with the existing natural environment.

DO2 - Over-dominant feature elements on the façade are avoided.

Development Requirements

- a) All two (2) storey elements must address the street to assist in framing the street and accommodate passive surveillance.
- b) Bulky projections on facades that are not functional to residential use are to be avoided. These include car porches, period replica features, excessive window overhangs or awnings, and other similar features.
- c) False facades that conceal the roof eaves and dominant parapets are to be avoided.
- d) Unbroken or under articulated building facade lengths of more than 12m are to be avoided.

7.4 External Walls (Articulation and Materials)

Desired Outcomes

DO1 - Building facades are articulated by a diversity of colour, material and texture.

Development Requirements

- a) Materials for external wall finishes are to contribute to the coastal character and should include a complementary combination of materials selected from the following:
 - (i) painted weatherboard cladding;
 - (ii) other lightweight materials;
 - (iii) rendered, bagged or painted brickwork; and
 - (iv) stonework.
- b) Verandahs, porches and balconies may be utilised to articulate building facades.

- c) External walls on street elevations where textured, rendered or bagged must be painted with colours that compliment the natural earth tones of the area.
- d) External walls should incorporate detailing to help break up large facades, and to add visual interest to the streetscape.
- e) Facades that are dominated by face brick are to be avoided. Face brick may be used only on the ground floor of a double storey home. Single storey brick homes are to be avoided (unless mixed with at least 25% lightweight material overall and no less than 50% of the front elevation).

7.5 Roof Form (Profiles and Materials)

Desired Outcomes

- DO1 - Roof forms do not unreasonably impact on views of important natural features from existing residences.
- DO2- Roof form, colours and materials enhance the visual appearance of the Saltwater Precinct.
- DO3 - Roofs provide summer shading.

Development Requirements

- a) Roof pitch and form is to be in proportion with overall building design and be compatible with the streetscape and neighbourhood character.
- b) Roofs should be designed so that roof forms and rooflines take into consideration views of hills/mountains and significant stands of vegetation from neighbouring properties.
- c) Rooflines are to be set back on a gradually increasing basis as per diagram below:

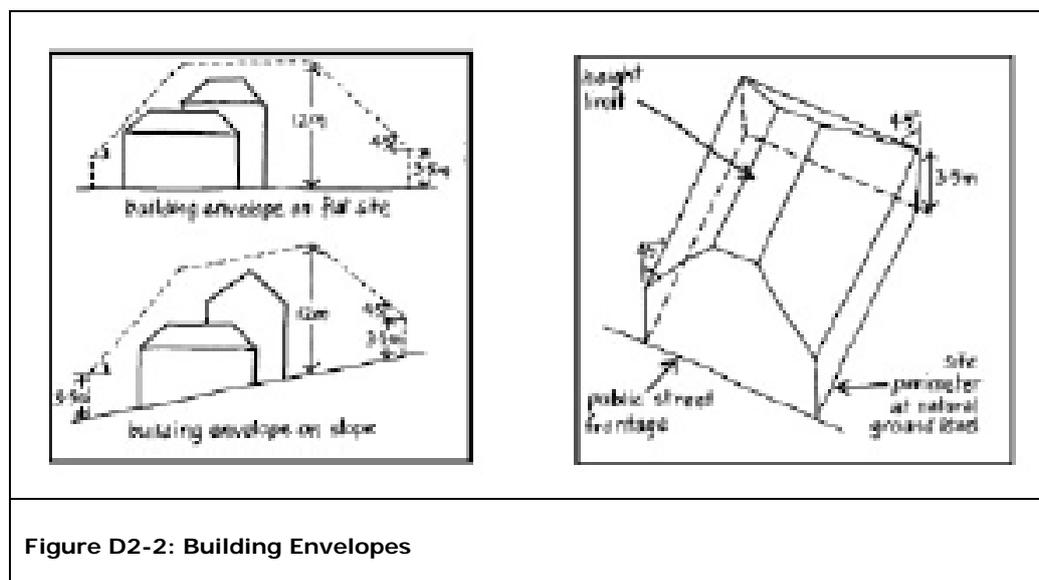


Figure D2-2: Building Envelopes

- d) Roof materials must contribute to the overall coastal character.
- e) The colour of roofing material must be consistent with the natural earth tones of the area.
 - (i) Metal roofs should be muted to prevent glare to adjoining properties and aircraft.
 - (ii) Galvanized iron or other reflective materials that produce glare are not suited to urban residential areas and are to be avoided.
 - (iii) Roof elements such as flues are to be painted to match the colour of the roof.
- f) Roofed decks and verandahs are to be compatible with the main building in terms of roof pitch, style and materials, and can be used to provide articulation.

7.6 Energy and Water Efficiency

Desired Outcomes

DO1 - Residential development generally complies with the requirements of BASIX.

DO2 - Development is designed in accordance with the following principles of Water Conservation and Stormwater Reuse, where practicable and reasonable for the scale of development proposed:

- To minimise water usage and reduce demand for water provided through Council's reticulation and storage systems.
- To reduce water usage and extend water storage capacities through the use of efficient household devices.
- To minimise flooding impacts created by new development and additional hardstand areas.
- To promote the recycling of water on or near the site.
- To prevent the export of pollutants and contaminants to sensitive environments.
- To provide new or enhanced natural habitats or aesthetic features in urban environments.
- To reduce erosion associated with runoff from residential development.

DO3 - The efficient use of domestic water supplies is maximized by providing opportunities to reduce demands on water through recycling and through appropriate landscaping.

Development Requirements

- a) A BASIX certificate is to be submitted for each dwelling within the development for BASIX affected development.
- b) Water efficient devices are to be installed in all new dwellings, including as replacement items:
 - i) 3 Star WELS rated shower heads;
 - ii) Water flow regulators;
 - iii) 5 star WELS rated taps in bathroom, laundry and kitchen basins; except where higher flow rates are required by the use in instantaneous hot water systems;

- iv) 4 star WELS rated toilets (4.5lt/3lt dual flush);
 - v) Rainwater storage tanks can be installed for all new dwellings (provided connection to KSC Recycled Water Supply Scheme has been completed in the first instance to satisfy BASIX requirements and provisions of the Integrated Water Cycle Management Plan); and
 - vi) Above ground rainwater storage tanks are to be located behind the building line.
- c) For dual occupancy and medium density development, the volume of stormwater runoff is to be managed onsite in accordance with the provisions of the approved Integrated Water Cycle Management Plan.

7.7 Ancillary Buildings and Structures

Desired Outcomes

DO1 - All ancillary structures:

- are in keeping with the design, appearance, materials, finishes and colour palette of the main dwelling;
- constitute a minor part of the development on site; and
- have an insignificant impact on the streetscape and existing/desired character of the neighbourhood.

DO2 - Ancillary buildings/structures do not cover the site to such a degree as to have an adverse impact on:

- private open space areas;
- the site's ability to allow sufficient infiltration of stormwater; and
- solar access to the living areas and private open space areas of the subject land and on adjoining properties.

Development Requirements

- a) Rainwater harvesting tanks and associated fixtures are to be located within the house structure or underground, or to the side or rear of the house.
- b) Above ground tanks are to be of a colour that complements the dwelling and they are also to be screened from public view.
- c) Ancillary structures, excluding garages and carports, are to be limited in size to a maximum floor area of 25m².

7.8 Garages and Carports

Desired Outcomes

DO1 - Garages and carports comply with the Desired Outcomes contained in Section 5.3 of [Chapter C1 – Residential Development – Urban Areas](#).

Development Requirements

- a) Garages and carports comply with the Development Requirements contained in Section 5.3 of [Chapter C1 – Residential Development – Urban Areas](#).

- b) Carports must be attached to the house and must be constructed in the same form and materials as the house.

APPENDICES

Appendix A: Vegetation Mapping

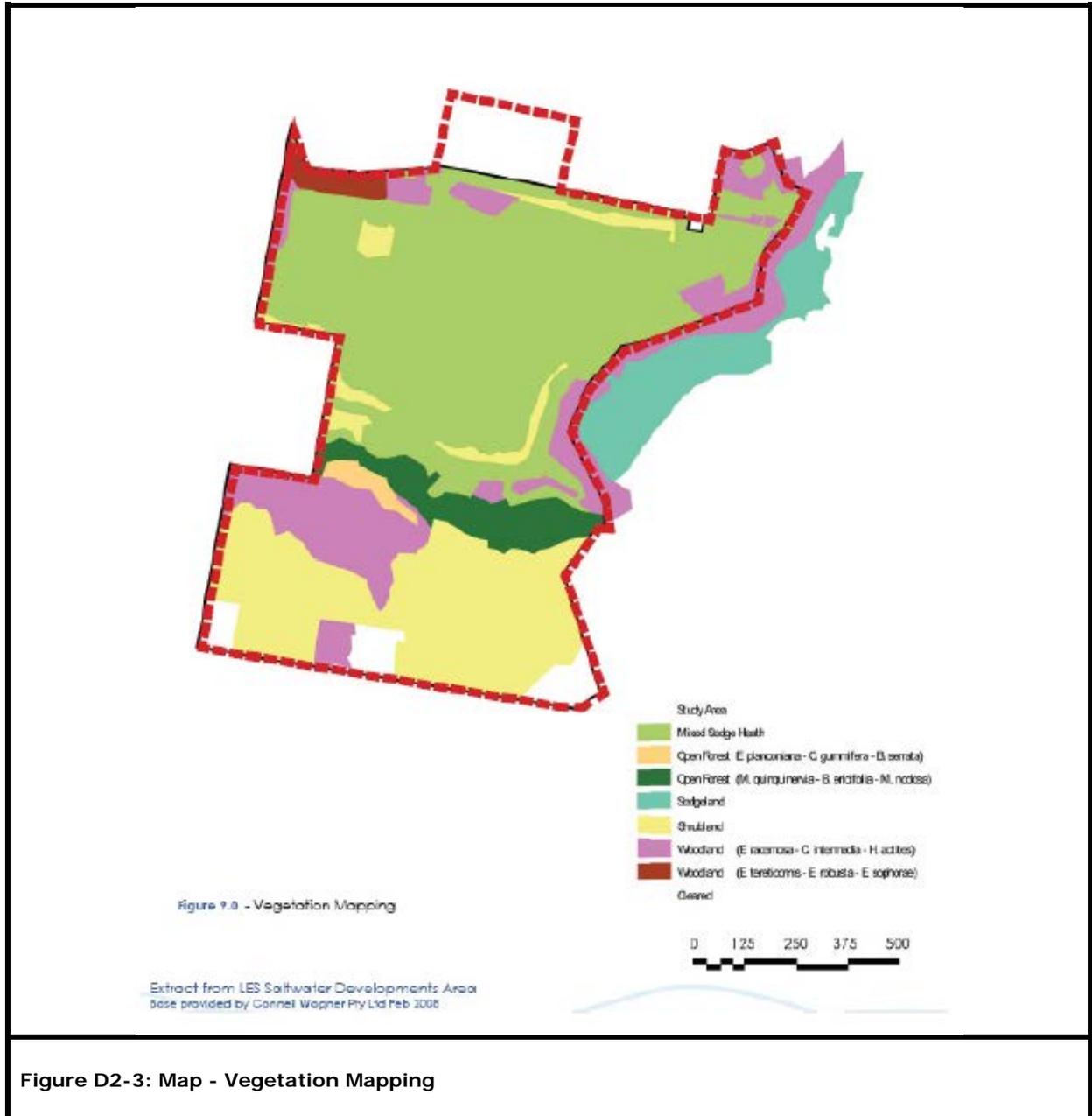


Figure D2-3: Map - Vegetation Mapping