PART E – ENVIRONMENTAL CONTROLS

E2 Coastal Hazards

E2.1 Coastal hazards requirements - general

Applies to Land

This control applies to all land seaward of any Hazard Line shown on the Coastal Hazard Map.

Objectives

- To ensure that development is responsive to the environmental context of the site, particularly in relation to coastal hazards.
- To minimise the risk to life and property from coastal hazards associated with development on land within Coastal Hazard Zones.
- To make provision for the orderly and resilient development of land within Coastal Hazard Zones.

Requirements

- Development on land seaward of any Hazard Line shown on the Coastal Hazard Map must not involve any physical works that will exacerbate the impact of coastal hazards on the subject land and adjacent land.
- 2. No building on land seaward of any Hazard Line shown on the Coastal Hazard Map is to be located within 20 metres of the current erosion escarpment.
- 3. Development on land seaward of any Hazard Line shown on the Coastal Hazard Map is to be designed and located to minimise risk of damage from coastal hazards and, where possible, avoid the need for physical structures to protect such development from potential for damage caused by coastal hazards.
- 4. Where practical and reasonable, Council may restrict the installation of structures and works such as fencing, landscaping and the like, seaward of the 2050 Hazard Line or Immediate Hazard Line.
- 5. All vegetated dunes on land seaward of any Hazard Line shown on the Coastal Hazard Map within the development site, whether existing or created as part of coastal protection measures, shall be managed and maintained by the land owner so as to protect the dune system from damage both

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during construction of the development and as a result of subsequent use during the life of the development.

6. Existing vegetation on land seaward of any Hazard Line shown on the Coastal Hazard Map within the development site shall be appropriately rehabilitated and maintained by the land owner for the life of the development to stabilise the sand available as a buffer against coastal hazards and to minimise the likelihood of inundation from increased sea levels.

Exceptions

- This control does not cover tidal inundation risks where they occur inland of the 2100 Hazard Line (for example flooding exacerbated by storm surge or tidal surge). Controls in relation to tidal inundation risk are contained in Chapter E4 Flooding of this Plan.
- Where demonstrated to Council's satisfaction, engineering measures including approved long-term protection works and / or adequate foundation capacity (typically to bedrock) may be considered as acceptable measures to enable certain types of development on land seaward of any Hazard Line shown on the Coastal Hazard Map.

E2.2 Coastal hazards requirements - immediate hazard zone

Applies to Land

This control applies to all land seaward of the Immediate Hazard Line shown on the Coastal Hazard Map. Objectives

 To ensure the impact of coastal processes on potential development is minimised by acknowledging and avoiding risks, limiting development, avoiding intensification and ensuring any appropriate development is only temporary, relocatable and/or adaptable.

Requirements

General

1. Where a site contains existing buildings or structures within the Immediate Hazard Zone and the property is the subject of a development application, Council may seek to have those existing buildings or structures removed as part of the development or redevelopment of the site.

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- 2. Buildings and structures are to be constructed in a manner, and/or to a level, which caters for the coastal hazards including wave run-up to a level of 7.0m AHD, overtopping and coastal inundation. Identification of an appropriate floor level for any proposed development must consider adjoining land-uses and levels, access constraints, as well as the proposed and existing use of the land.
- 3. Where development consent is granted for development on land seaward of the Immediate Hazard Zone shown on the Coastal Hazard Map, it shall be conditional that if the erosion escarpment approaches within 20 metres of any habitable building subject to the consent, then the use or occupation of the habitable building will cease.
- 4. If the use or occupation of a habitable building is required to cease in accordance with requirement 3 of this control, then the owner(s) of the land is responsible for the demolition, removal from the site or relocation within the site of any habitable building that is within 20 metres of the erosion escarpment. If the option to relocate a building within the site is planned, the proposed location must be identified as part of the development application and will be conditioned as part of any development consent.

Subdivision

- Subdivision proposals comprising land within the Immediate Hazard Zone must demonstrate that buildings are able to be accommodated on the resulting lots outside of the Immediate Hazard Zone.
 Residential, Commercial, Retail, Tourism and Industrial Development
- 6. Development applications comprising new buildings or permanent structures on land within the Immediate Hazard Zone will not be supported by Council.
- Modifications to existing buildings within the Immediate Hazard Zone will only be supported for additions, renovations, alterations and maintenance but only if they are in accordance with requirements 9 to 13 of this control.
- Development will not be supported by Council if it will result in people permanently living or working within the Immediate Hazard Zone.

Additions, Renovations, Alterations and Maintenance

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- 9. Additions to existing buildings within the Immediate Hazard Zone will not be supported by Council.
 10. Renovations and alterations within the Immediate Hazard Zone will be considered on their merits,
- 11. Renovations and alterations within the Immediate Hazard Zone must ensure that they do not

based on the location of the erosion escarpment, the type of building involved and access to the site.

- increase the risk to persons, property or buildings or increase the level of coastal hazard to the subject or any other land.
- 12. Alterations to existing buildings within the Immediate Hazard Zone is limited to minor works only. Alterations must not adversely impact the ability of the existing building or buildings to be removed in an emergency and where possible improve the ability of the existing building or buildings to be removed in an emergency.
- Maintenance to existing buildings within the Immediate Hazard Zone is supported by Council.
 Car Parking
- 14. Open car park areas and carports (i.e. at least three sides are open) within the Immediate Hazard Zone at existing ground level only will be considered. Other forms of car parking are not acceptable.
- Basement or underground car parking within the Immediate Hazard Zone will not be supported by Council.

Redevelopment of Existing Caravan Parks

- 16. Redevelopment of existing caravan parks must not result in an increase in the number of sites than what currently exists within the Immediate Hazard Zone.
- 17. Redevelopment of existing caravan parks within the Immediate Hazard Zone must comprise short term sites only and shall exclude the erection of any cabin or similar structure within the Immediate Hazard Zone.
- 18. No new permanent building (including community buildings) associated with the redevelopment of existing caravan parks shall be located within the Immediate Hazard Zone.

Exceptions

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Development that is temporary, or can be relocated or sacrificed, such as decks, non-habitable detached lightweight structures associated with outdoor living areas, storage or landscaping may be considered within the Immediate Hazard Zone where these do not prejudice relocation of other buildings on the site.

Development that is intended to replace a lawfully erected habitable building that is significantly damaged or destroyed (other than by coastal processes or coastal hazards) may be considered within the Immediate Hazard Zone where:

- there is no alternative location within the site to meet the requirements of this Chapter; and
- the footprint of the new habitable building is the same or less than the damaged habitable building; and
- any occupation or use of that habitable building will not increase risk to life, increase the risk of damage from coastal hazards or adversely affect coastal processes.

Any habitable building must be designed and constructed to be modular, detachable and/or relocatable to enable relocation or removal of development in the future.

- Development for essential public purposes, or development which relates to the public use of the beachfront, may be considered within the Immediate Hazard Zone. For example surf lifesaving and marine rescue observation structures, access structures, picnic facilities, signage, landscaping, shared paths or the like providing they do not require a major extension to a service main. Any structures must be easily removable or sacrificial in the event they are damaged by coastal hazards.
- Any fencing to be located seaward of the Immediate Hazard Line must be constructed of pool-type or similar predominantly open style fencing.
- This control does not cover tidal inundation risks where they occur inland of the 2100 Hazard Line (for example flooding exacerbated by storm surge or tidal surge). Controls in relation to tidal inundation risk are contained in Chapter E5 Flooding of this Plan.

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- A restriction is required on the title of any lot comprising development to which requirements 3 and 4 of this Control apply, reflecting such requirements.
- The relocation of a building to another part of the site will likely require additional approvals depending on its use.

E2.3 Coastal hazards requirements - 2050 Hazard Zone

Applies to Land

This control applies to all land between the 2050 Hazard Line and the Immediate Hazard Line shown on the Coastal Hazard Map.

Objective

To ensure the impact of coastal processes on potential development and the effect of development on coastal processes is minimised by ensuring any development acknowledges risk, ceases and is readily relocatable or removable as coastal hazards encroach on the development.

Requirements

General

- The precautionary principle is to be applied to development and subdivision proposals within the 2050 Hazard Zone to identify the potential for serious or irreversible environmental damage.
 Development and subdivision proposals must include strategies to avoid or mitigate potential adverse environmental effects.
- 2. Where development consent is granted for development on land seaward of the 2050 Hazard Line shown on the Coastal Hazard Map, it shall be conditional that if the erosion escarpment approaches within 20 metres of any habitable building subject to the consent, then the use or occupation of the building will cease.
- 3. If the use or occupation of a building is required to cease in accordance with requirement 2 of this control, then the owner(s) of the land is responsible for the demolition, removal or relocation within the site, of any building that is within 20 metres of the erosion escarpment. If the option to relocate a building within the site is planned, this must be indicated as part of the development application and will be conditioned as part of any development consent.

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Subdivision

4. Consideration shall be given to the filling of land within the 2050 Hazard Zone to a level consistent with the avoidance of impact resulting from wave-run up to a level of 7.4m AHD and overtopping. Identification of an appropriate level must consider adjoining land-use and levels, access constraints, as well as the proposed and existing use of the land.

Residential, Commercial, Retail, Tourism and Industrial Development

 Development in the 2050 Hazard Zone should be designed and constructed to be modular, detachable and/or relocatable to enable relocation or removal of development in the future when under threat from coastal hazards.

- 6. Where a site has existing buildings or structures seaward of the 2050 Hazard Line and the property is the subject of a development application, Council may seek to have those structures removed as part of the development or redevelopment of the site.
- 7. Habitable buildings constructed within the 2050 Hazard Zone shall be set back as far landward as practicable (or be able to be moved landward as far as practicable should any habitable building become located within 20 metres of the erosion escarpment).
- 8. Structural elements within the 2050 Hazard Zone including foundations, footings and slabs for new buildings are to be designed by a professional engineer.

Additions, Renovations, Alterations and Maintenance

 Additions, renovations, alterations and maintenance works within the 2050 Hazard Zone will be considered on their merits. Consideration will be given to the location of the erosion escarpment, the type of building involved and access to the site.

10. Additions or alterations within the 2050 Hazard Zone must not adversely impact upon the ability of the existing building or buildings to be removed in an emergency and where possible improve the ability of the existing building or buildings to be removed in an emergency.

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- 11. Development applications for development comprising a 50% or greater increase in the gross floor area (GFA) compared with that of the existing building will not be supported by Council unless the portion of any existing building which is seaward of the 2050 Hazard Line is removed.
- 12. Alterations and renovations to existing buildings seaward of the 2050 Hazard Line will not be supported by Council where more than 50% of the existing GFA is proposed to be demolished and rebuilt seaward of the 2050 Hazard Line.

13. Any addition to a building within the 2050 Hazard Zone shall be restricted to the following:

- where the GFA of the existing building is less than 100 m² any additional GFA shall not result in the buildings total GFA being greater than 115 m²; or
- where the GFA of the existing building is 100 m² or more any additional GFA shall not be
 more than 15% of the GFA of the existing building (measured at the date of commencement of this DCP).
- 14. No additions or alterations to existing buildings will be approved within the 2050 Hazard Zone where they are within 20 metres of the current erosion escarpment.

Car Parking

- 15. Open car park areas and carports (i.e. at least three sides are open) may be considered at existing ground level.
- 16. Basement or underground car parking within the 2050 Hazard Zone will not be supported.

Redevelopment of Existing Caravan Parks

- 19. Redevelopment of existing caravan parks must not result in an increase in the number of sites than what currently exists within the 2050 Hazard Zone.
- 20. No new permanent buildings (including community buildings) shall be erected within the 2050 Hazard Zone unless there is no alternative location landward of the 2050 Hazard Zone.

Exceptions

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- This control does not cover tidal inundation risks where they occur inland of the 2100 Hazard Line (for example flooding exacerbated by storm surge or tidal surge). Controls in relation to tidal inundation risk are contained in Chapter E4 – Flooding of this Plan.
- The maintenance of buildings is permitted within the 2050 Hazard Zone.
- Development that is temporary, or can be relocated or sacrificed, such as decks, non-habitable
 detached lightweight structures associated with outdoor living areas, storage or landscaping may be
 considered within the 2050 Hazard Zone where it does not adversely affect coastal processes and/or
 prejudice the relocation of other buildings on the site.
- Development for essential public purposes, or development which relates to the public use of the beachfront, may be considered within the 2050 Hazard Zone. For example surf lifesaving and marine rescue observation structures, access structures, picnic facilities, signage, landscaping, shared paths or the like providing they do not require a major extension to a service main. Any structures must be easily removable or sacrificial in the event they are damaged by coastal hazards.
- The redevelopment of existing caravan parks within the 2050 Hazard Zone may comprise cabins or similar structures which are temporary and readily removable.
- Where redevelopment of existing caravan parks involves permanent buildings (such as amenities and offices) and there is no alternative location landward of the 2050 Hazard Zone buildings should be designed and constructed to be modular, detachable and/or relocatable to enable relocation or removal when under threat from coastal hazards.

Notes

- A restriction is required on the title of any lot comprising development to which requirements 2 and 3 of this Control apply, reflecting such requirements.
- The relocation of a building to another part of the site will likely require additional approvals depending on its use.

E2.4 Coastal hazard requirements - 2100 Hazard Zone

Applies to Land

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This control applies to all land between the 2100 Hazard Line and the 2050 Hazard Line shown on the Coastal Hazard Map.

Objectives

 To ensure that potential development acknowledges and builds in resilience to coastal hazards and the effect of development on coastal processes is minimised by ensuring any development ceases as coastal hazards encroach on the development.

Requirements

General

- The precautionary principle is to be applied to development and subdivision proposals within the 2100 Hazard Zone to identify the potential for serious or irreversible environmental damage.
 Development and subdivision proposals must include strategies to avoid or mitigate potential adverse environmental effects.
- 2. Development in the 2100 Hazard Zone must be designed to:
 - avoid or minimise exposure to coastal hazards;
 - provide for the safety of residents, workers or other on-site occupants from risks associated with coastal hazards; and
 - accommodate natural coastal processes and coastal hazards.
- 3. Structural elements in the 2100 Hazard Zone including foundations, footings and slabs for new buildings are to be designed by a professional engineer.
- 4. Basement car parking may be considered within this zone only if it is located as far landward of the 2050 Hazard Line as practical. Basement parking, if proposed, must:
 - have all access, ventilation and any other potential water entry points at safe levels as
 determined by a professional engineer; and
 - have a clearly signposted inundation free pedestrian evacuation route from the basement or bunded area separate to the vehicular access ramps.

Subdivision

6. Consideration shall be given to the filling of land within the 2100 Hazard Zone to a level consistent with the avoidance of impact resulting from wave-run up and overtopping. The wave run-up level to be considered shall be 7.7m AHD. Identification of an appropriate level shall consider adjoining land-use and levels, access constraints, as well as the proposed and existing use of the land.

Exceptions

- This control does not cover tidal inundation risks where they occur inland of the 2100 Hazard Line (for example flooding exacerbated by storm surge or tidal surge). Controls in relation to tidal inundation risk are contained in Chapter E4 - Flooding of this Plan.

E2.5 Coastal hazards requirements – Special Areas

Applies to Land

This control applies to all land identified as Special Areas shown on the Coastal Hazard Map.

Objectives

To recognise that where long-term protection works or other suitable measures are in place, the level of risk to life and property from coastal hazards may be different from that shown on the Coastal Hazard Map.

Requirements

- Despite controls E2.1 to E2.4, the application of coastal hazard requirements within special areas may be varied at the discretion of Council subject to:
 - adequate engineering justification; and
 - assessment against the objectives in this Chapter to Council's satisfaction.
- Development applications for development within special areas seeking a variation to any requirements of this Chapter are to be accompanied by the following:
 - engineering justification demonstrating that adequate protection works currently exist to provide protection from Coastal Hazards; and

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- a Coastal Hazard Management Report; and
- detailed assessment as to how the proposal meets the objectives of this Chapter.

Exceptions

 This control does not cover tidal inundation risks where they occur inland of the 2100 Hazard Line (for example flooding exacerbated by storm surge or tidal surge). Controls in relation to tidal inundation risk are contained in Chapter E4 – Flooding of this Plan.

E2.6 Development application requirements

Applies to Land

This control applies to all land seaward of any Hazard Line shown on the Coastal Hazard Map.

Objective

 To ensure that development applications for development and subdivision proposals on land impacted by coastal hazards provide sufficient information to enable a proper assessment of the proposal in accordance with relevant legislation.

Requirements

- Development applications for land seaward of any Hazard Line shown on the Coastal Hazard Map are to be accompanied by a signed acknowledgment that the proponent of the development (or the owner of the land if it is not the proponent)
 - has read Chapter E2 of this Plan; and
 - accepts the risk and responsibility of developing land affected by coastal hazards; and
 - acknowledges this requirement.
- 2. Development applications for land seaward of any Hazard Line shown on the Coastal Hazard Map are

to be accompanied by information that demonstrates the development proposal:

- is consistent with the Coffs Harbour Coastal Zone Management Plan (2013) or as subsequently amended; and
- is consistent with the objectives and controls in this Chapter.

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3. Development applications for land in the Immediate Hazard Zone and 2050 Hazard Zone are to be accompanied by the following:

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- plans drawn to a scale of not less than 1:1500 by a licensed surveyor, showing the following information to illustrate the position and configuration of the proposed development in relation to coastal risks including:
 - location of the existing and proposed buildings in relation to the property boundaries and the relevant Hazard Lines that apply to or impact upon on the subject land;
 - the existing coastal erosion escarpment line;
 - existing vegetation within the subject site;
 - levels of the existing and proposed buildings relative to AHD including foundation levels,
 floor levels, ceiling levels and overall height;
 - existing ground levels around the perimeter of the proposed buildings relative to AHD;
 - foundation type;
 - existing topographic levels of the site to a vertical accuracy of 0.1m and a horizontal spacing sufficient to identify all the features of the land, relative to AHD; and
 - existing topographic levels of the area seaward of the site between the seaward property boundary and the line of mean high water springs, relative to AHD.
- 4. At the request of Council, development applications for land seaward of any Hazard Line shown on the Coastal Hazard Map may be required to be accompanied by the following specialist information:
 - a Coastal Risk Management Report prepared by a professional engineer certifying that the development will not increase or exacerbate coastal hazards on any other property and address the Coastal Risk Management Report Guidelines (Appendix 4).
 - a geotechnical report indicating the sub-strata and the type of foundations and footings (if proposed); and/or
 - a structural engineering report showing:
 - the materials of construction:
 - principal dimensions of the main structural elements;

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- top and bottom levels of foundations, footings or piles; and
- illustrations of the events (erosion from the sea, wave action on the structure) considered in the design; and/or
- An evacuation plan and pedestrian / vehicular access route plans for both before and during a coastal hazard event.

Notes

- A restriction is required on the title of any lot comprising development to which requirement number 1 of this Control applies, reflecting such requirement.
 - Coastal Hazard Development Scenarios that may assist in the interpretation of Chapter E2 of this Plan are contained in Appendix 4. These are provided for illustration and assistance only.