

8 Overlays

8.1 Preliminary

1. Overlays identify areas within the planning scheme that reflect distinct themes that may include all or one of the following:
 - a. sensitive to the effects of development;
 - b. constrain land or development;
 - c. subject to valuable resources;
 - d. present opportunities for development.
2. Overlays are mapped and those maps are included in Schedule 2.
3. The changed category of development or category of assessment, if applicable, for development affected by an overlay are in Part 5.
4. Some overlays may be included for information purposes only. This may result in no change to the category of development or category of assessment or no additional assessment benchmarks for assessable development or additional requirements for accepted development.
5. Overlay specific assessment benchmarks and additional requirements for accepted development may be contained in one or more of the following:
 - a. a map for an overlay;
 - b. a zone code contained in Part 6;
 - c. a local plan code contained in Part 7;
 - d. an overlay code contained in Part 8;
 - e. a development code contained in Part 9.
6. Where development is proposed on premises partly affected by an overlay, the overlay specific assessment benchmarks and additional requirements for accepted development only relate to the part of the premises affected by the overlay.
7. The following overlays for the planning scheme with a code are:
 - a. Coastal hazard;
 - b. Flood hazard.
8. The following overlays for the planning scheme without an overlay code(s) are:
 - a. Acid sulphate soils;
 - b. Active transport;
 - c. Building heights;
 - d. Bushfire hazard;
 - e. Centre walking distances;
 - f. Community activities and neighbourhood hubs;

- g. Environmental areas;
 - h. Environmental offset receiving areas;
 - i. Extractive resources;
 - j. Heritage and landscape character;
 - k. Infrastructure buffers;
 - l. Landslide hazard;
 - m. Overland flow path;
 - n. Riparian and wetland setbacks;
 - o. Road hierarchy;
 - p. Rural residential lot sizes;
 - q. Scenic amenity;
 - r. Stormwater catchments.
9. The following overlay for the planning scheme is for information purposes only:
- a. Transport noise corridors.

Editor's note - Interested persons may obtain details about the transport noise corridor and the levels of noise from the local government or [Department of Housing and Public Works](#).

Note - Not all overlay have overlay codes or use overlays to change categories of development or categories of assessment, and this is reflected in Part 5, section 5.10 Categories of development and assessment - Overlays and Part 8, section 8.2 Overlay codes. For those overlays that do not contain overlay codes, and are not used solely for information purposes, any additional assessment benchmarks or requirements for accepted development, for the part of the premises affected by an overlay may be contained within the relevant zone, local plan and development codes.

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8.2 Overlay codes

8.2.1 Coastal hazard overlay code

8.2.1.1 Application - Coastal hazard overlay

1. This code applies to development within the mapped extent of the Coastal hazard overlay, if that development is identified as:
 - a. accepted development subject to requirements or assessable development, and this code is listed as an applicable code in the assessment benchmarks for assessable development and requirements for accepted development column of a table of assessment (Part 5.10);
 - b. assessable development - impact assessment.
2. The Coastal hazard overlay code applies to land in the Coastal planning area or the Erosion Prone Area identified on a Coastal hazard overlay map. The Coastal planning area includes land in the following sub-categories:
 - a. High risk storm tide inundation area;
 - b. Medium risk storm tide inundation area;
 - c. Balance coastal planning area.
3. When using this code, reference should be made to section 5.3.2 and, where applicable, section 5.3.3, in Part 5.

Editor's note - The Coastal Hazard Overlay (Erosion Prone Area) shows erosion prone areas based on mapping dated 21 January 2015. On 8 July 2015, the State Government declared new erosion prone areas based on a projected sea level rise of 0.8 metre by 2100.

Although the majority of erosion prone areas are shown in the Coastal Hazard Overlay, the SPP mapping prevails over the planning scheme to the extent of any inconsistencies. Applicants are required to check the SPP Interactive Mapping System to determine whether a property is in an Erosion Prone Area. The SPP Interim development assessment requirements for Natural hazards, risk and resilience apply to properties included in an Erosion Prone Area on the SPP Interactive Mapping System but not on the Coastal Hazard Overlay (Erosion Prone Area).

Moreton Bay Regional Council will complete a localised Erosion Prone Area study in due course and will accordingly update the Moreton Bay Regional Council Planning Scheme.

8.2.1.2 Purpose - Coastal hazard overlay

1. The purpose of the Coastal hazard overlay code is to:
 - a. identify whether an area is subject to a coastal hazard;
 - b. minimise the risk to life, property, community, economic development and the environment from the coastal hazard by:

- i. limiting development in an area of intolerable risk of coastal hazard to avoid the risk of the coastal hazard;
 - ii. managing development in an area of tolerable risk of coastal hazard to mitigate the risk of the coastal hazard;
 - c. ensure that development does not increase the potential for adverse impacts on the premises or other premises, public lands, watercourses, roads or infrastructure without appropriate mitigation.
2. The purpose of the Coastal hazard overlay code will be achieved through the following overall outcomes:
- a. Development in the Erosion Prone Area manages and mitigates the tolerable risk of the coastal hazard by ensuring that:
 - i. a material change of use is only for a use which:
 - A. avoids the coastal erosion risk; or
 - B. manages the coastal erosion risk through a strategy of planned retreat; or
 - C. mitigates the coastal erosion risk if there are no adverse local drainage impacts, flooding and coastal impacts on other premises, public land, watercourses, roads or infrastructure or impacts on natural riverine and coastal processes or flood warning times;
 - ii. reconfiguring a lot for boundary realignment only occurs if the tolerable risk of coastal hazard to people, property and infrastructure located on the premises and other premises is not increased and where practicable the tolerable risk of coastal hazard for future occupants is mitigated;
 - iii. reconfiguring a lot for creating lots by subdividing another lot is only for the purposes of Park or Permanent plantation unless all resultant lots provide the required minimum lot size outside the Erosion Prone Area;
 - iv. building work complies with the flood planning level, engineering design and resilient materials requirements;
 - v. earthworks are avoided as far as practicable and are only for the purpose of mitigating the coastal hazard or where associated with a previous approval;
 - b. Development in the High risk storm tide inundation area included in the Limited development zone avoids the extremely unacceptable intolerable risk of the coastal hazard by ensuring that:
 - i. a material change of use is only for the following uses if the intolerable risk of coastal hazard to people, property and infrastructure located on the premises and other premises is avoided:
 - A. Outdoor sport and recreation⁽⁵⁵⁾; or
 - B. Park⁽⁵⁷⁾; or
 - C. Permanent plantation⁽⁵⁹⁾; or
 - D. Cropping⁽¹⁹⁾ (where involving forestry for wood production);
 - ii. reconfiguring a lot for boundary realignment only occurs if the intolerable risk of coastal hazard to people, property and infrastructure located on the premises and other premises is not increased and where practicable the intolerable risk of coastal hazard for future occupants is mitigated;

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- iii. reconfiguring a lot for creating lots by subdividing another lot is only for the purposes of Park or Permanent plantation or ensures that lots have sufficient area outside of the zone for development consistent in the adjoining zone and precinct;
 - iv. building work is less than 50m² in area and associated with a use in paragraph (i);
 - v. earthworks do not occur except where associated with a previous approval.
- c. Development in the High risk storm tide inundation area not included in the Limited development zone, avoids the unacceptable intolerable risk of the coastal hazard by ensuring that:
- i. a material change of use is only for the following uses if consistent with the overall outcomes of the applicable zone and precinct and the intolerable risk of coastal hazard to people, property and infrastructure located on the premises and other premises is avoided:
 - A. Dwelling house⁽²²⁾; or
 - B. Outdoor sport and recreation⁽⁵⁵⁾; or
 - C. Park⁽⁵⁷⁾; or
 - D. Permanent plantation⁽⁵⁹⁾; or
 - E. Cropping⁽¹⁹⁾ (where involving forestry for wood production); or
 - F. Tourist park⁽⁸⁴⁾; or
 - G. Home based business⁽³⁵⁾;
 - ii. reconfiguring a lot for boundary realignment only occurs if the intolerable risk of coastal hazard to people, property and infrastructure located on the premises and other premises is not increased and where practicable the intolerable risk of coastal hazard for future occupants is mitigated;
 - iii. reconfiguring a lot for creating lots by subdividing another lot is only for the following:
 - A. if in the Rural zone, where consistent with the overall outcomes of the applicable zone and applicable precinct and each rural lot is provided with the required minimum development footprint (flood and coastal) outside the Erosion prone area (State Planning Policy), High risk storm tide inundation area or Medium risk storm tide inundation area of the Coastal planning area ; or
 - B. if in the Rural residential zone , residential lots provide include the required minimum development footprint (flood and coastal) lot-size outside the Erosion Prone Area, High risk storm tide inundation area or Medium risk storm tide inundation area of the Coastal planning area; or
 - C. if in any other zone, for the purposes of a Park or Permanent plantation;
 - iv. building work complies with the flood planning level, engineering design and resilient materials requirements;
 - v. earthworks do not occur except where associated with a previous approval.
- d. Development in the Medium risk storm tide inundation area manages and mitigates the tolerable risk of the coastal hazard by ensuring that:
- i. a material change of use is only for uses consistent with the overall outcomes of the applicable zone and precinct if the use is not a vulnerable land use (flood and coastal) and the risk to people, property and infrastructure located on the premises and other premises is avoided or mitigated;

- ii. reconfiguring a lot for boundary realignment only occurs if the risk of coastal hazard to people, property and infrastructure located on the premises and other premises is not increased and where practicable the risk of coastal hazard for future occupants is mitigated;
- iii. reconfiguring a lot for creating lots by subdividing another lot is only for the following:
 - A. in the Rural zone, where consistent with the overall outcomes of the applicable zone and applicable precinct and each rural lot is provided with the required minimum development footprint (flood and coastal) outside the Erosion prone area (State Planning Policy), High risk storm tide inundation area or Medium risk storm tide inundation area of the Coastal planning area; or
 - B. in the Centre zone, Industry zone, or Recreation and open space zone, where not for the purpose of a vulnerable use (flood and coastal) and consistent with the overall outcomes of the applicable zone and precinct; or
 - C. in the Rural residential zone, residential lots include where the required minimum development footprint (flood and coastal) lot size for each rural residential lot is provided outside the Erosion prone area (State Planning Policy), High risk storm tide inundation area or Medium risk storm tide inundation area of the Coastal Planning area; or
 - D. in all other zones, where:
 - i. all resultant lots are located outside the High risk storm tide inundation area or Medium risk storm tide inundation area other than those for the purposes of Park or Permanent plantation; or
 - ii. for a lot on a building format plan under the *Land Title Act 1994* which is subject to a community titles scheme under the *Body Corporate and Community Management Act 1997* and is associated with a material of use.
- iv. building work complies with the flood planning level, engineering design and resilient materials requirements;
- v. earthworks only occur if:
 - A. in the General residential zone, Centre zone, Community facilities zone, Recreation and open space zone, Industry zone, Township zone or Emerging community zone;
 - B. filling is limited to raising the ground level to as a minimum the Year 2100 Highest Astronomical Tide level;
 - C. there are no adverse local drainage impacts, flooding and coastal impacts on other premises, public land, watercourses, roads or infrastructure or impacts on natural riverine and coastal processes or flood warning times.
- e. Development in the Balance coastal planning area manages and mitigates the tolerable risk of the coastal hazard by ensuring that:
 - i. a material change of use is only for uses consistent with the overall outcomes of the applicable zone and precinct if the risk to people, property and infrastructure located on the premises and other premises is avoided or mitigated;
 - ii. reconfiguring a lot is consistent with the overall outcomes of the applicable zone and precinct;
 - iii. building work complies with the flood planning level and resilient material requirements;
 - iv. earthworks only occur if:

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- A. in the General residential zone, Centre zone, Community facilities zone, Recreation and open space zone, Industry zone, Township zone or Emerging community zone;
 - B. any filling is limited to raising the ground level to the Flood planning level as a minimum the Defined flood event;
 - C. there are no adverse local drainage impacts, flooding and coastal impacts on other premises, public land, watercourses, roads or infrastructure or impacts on natural riverine and coastal processes or flood warning times.
- f. Development in the Coastal planning area:
- i. supports and does not unduly burden the disaster management response and recovery capacity and capabilities during and after a significant coastal hazard event;
 - ii. provides for efficient evacuation of on-site persons and facilitates direct and simple access for evacuation personnel and resources during a coastal hazard event, while ensuring development does not hinder or place additional complexities upon evacuation activities for other premises;
 - iii. avoids isolation of persons during a coastal hazard event up to and including the Defined Flood Event;
 - iv. adopts siting, built form, layout, and access (including evacuation access) arrangements that respond to the risk of the coastal hazard and minimise risk to personal safety in all coastal hazard events up to and including the Defined Flood Event;
 - v. is resilient to a coastal hazard event by ensuring the siting and design of development accounts for the potential risks to property associated with the coastal hazard event;
 - vi. directly, indirectly and cumulatively avoids an increase in the severity of a coastal hazard event and potential for damage on the premises or to other premises;
 - vii. involving essential community infrastructure remains functional during and immediately after a coastal hazard event up to and including the Defined Flood Event;
 - viii. ensures that essential building services or services essential for the development are designed, located and operated to minimise the risk of the coastal hazard to people, damage to property, disruption to building function and the re-establishment time after a coastal hazard event;
 - ix. avoids the accidental release of hazardous materials as a result of a coastal hazard event;
 - x. maintains natural processes and the protective function of landforms and vegetation;
 - xi. does not impact adversely on the ability for future coastal hazard mitigation measures to be implemented on other premises.

8.2.1.3 Requirements for assessment

If development is to be categorised as accepted development subject to requirements it must comply with the requirements for accepted development set out in Part A, Table 8.2.1.1. Where development does not meet a requirement for accepted development (RAD) within Part A, Table 8.2.1.1, the category of development changes to assessable development under the rules outlined in section 5.3.3. (1), and assessment is against the corresponding performance outcome (PO) identified in the table below. This only occurs whenever a RAD is not met, and is therefore limited to the subject matter of the RADs that are not complied with. To remove any doubt, for those RADs that are complied with, there is no need for assessment against the corresponding PO.

Requirements for accepted development (RAD)	Corresponding performance outcomes
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RAD1	PO8 (if in the Balance coastal planning area) PO13 (if not in the Balance coastal planning area)
RAD2 (for MCU or building work for dwelling house)	PO3
RAD2 (for all other development)	PO8 (if in the Balance coastal planning area) PO13 (if not in the Balance coastal planning area)
RAD3	PO8 (if in the Balance coastal planning area) PO14 (if not in the Balance coastal planning area)
RAD4 (for MCU or building work for dwelling house)	PO3
RAD4 (for all other development)	PO8 (if in the Balance coastal planning area) PO14 (if not in the Balance coastal planning area)
RAD5	PO6
RAD5 (for all other development)	PO8 (if in the Balance coastal planning area) PO13 (if not in the Balance coastal planning area)
RAD6	PO28
RAD7	PO31
RAD8 (for MCU or building work for dwelling house)	PO7
RAD8 (for all other development)	PO18 (if not in the Balance coastal planning area)
RAD9	PO14
RAD10	PO13

Part A – Requirements for accepted development subject to requirements - Coastal hazard overlay

Table 8.2.1.1 Requirements for accepted development subject to requirements - Coastal hazard overlay

Requirements for accepted development	
Section A – If for accepted development subject to requirements for material change of use in an existing building and not in the Erosion Prone Area	
RAD1	<p>Development ensures that new building materials utilised as a consequence of the change of use for habitable and non-habitable rooms below the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' have a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p>
Section B – If for accepted development subject to requirements other than a material change of use in an existing building and not in the Erosion Prone Area	
RAD2	Development ensures that a habitable floor level that is the subject of the development is located, designed and constructed to the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.
RAD3	Development for a non-residential building ensures that a finished floor level the subject of the development is located, designed and constructed to the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.

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RAD4	<p>Development ensures that building materials for non-habitable rooms below the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' have a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p>
RAD5	<p>Development on land below the Flood planning level involving earthworks complies with the requirements of Table 8.2.1.4 'Fill requirements' and does not increase the potential for erosion, scour or flood damage either on the premises or on other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain.</p> <p>Note - Prior to development occurring, an investigation into the potential impacts of earthworks should be undertaken by a suitably qualified person so that a prospective developer can satisfy themselves the development meets this SAO. Guidance on the matters to be addressed is provided in Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>
RAD6	<p>Development that involves hazardous chemicals ensures the hazardous chemicals are located and stored at or above the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p>
RAD7	<p>Development for a Park ensures works are provided in accordance with the requirements set out in Appendix B of the Planning scheme policy - Integrated design.</p>
RAD8	<p>Development ensures that an essential electrical service is located above the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p> <p>Note - An essential electrical service includes services defined as utilities and customer dedicated substation in Mandatory Part 3.5 – Construction of buildings in flood hazard areas of the Queensland Development Code.</p>
RAD9	<p>Development for an Advertising device is located, designed and constructed to resist the hydrostatic and hydrodynamic forces as a result of inundation by the Defined Flood Event.</p>
Section C – If for accepted development subject to requirements in the Erosion Prone Area only	
RAD10	<p>Development is located outside the Erosion Prone Area, or otherwise does not extend any further seaward than existing immediately adjacent buildings.</p>

Part B – Criteria for assessable development – Coastal hazard overlay

Where development is listed as assessable development - code assessment in the Table of Assessment, the assessment benchmarks for that development are set out in Part B, Table 8.2.1.2 as well as the applicable purpose statement and overall outcomes.

Where development is assessable development - impact assessment, the assessment benchmarks are the applicable provisions within the entire planning scheme.

Table 8.2.1.2 Assessable development - Coastal hazard overlay

Performance outcomes	Examples that achieve aspects of the Performance Outcomes
Material change of use or building work for a dwelling house⁽²²⁾	
PO1	No example provided.

<p>Development in the High risk storm tide inundation area included in the Limited development zone for:</p> <ul style="list-style-type: none"> a. a material change of use and associated building work for a dwelling house⁽²²⁾ does not occur; b. building work not associated with a material change of use for a dwelling house⁽²²⁾ only occurs for an existing lawful use. 	
<p>PO2</p> <p>Development in the Erosion Prone Area is sited to protect people and property from coastal processes and minimise the need for additional coastal protection works to mitigate the erosion risk.</p>	<p>E2</p> <p>Development is located outside the Erosion Prone Area, or otherwise does not extend any further seaward than existing immediately adjacent buildings.</p>
<p>PO3</p> <p>Development is resilient to a coastal hazard event by ensuring the design and built form account for the potential risks of the coastal hazard event (including storm tide inundation, wave action and coastal erosion).</p> <p>Note - New buildings not on land already filled to the flood planning level will require a structural engineering design capable of withstanding the nature of the hazard(s) to which the building will be subject, to be supported by a report (or multiple reports) prepared by a Registered Professional Engineer Queensland that identifies the coastal hazard and the structural approach to be utilised. Information on the risk of a coastal hazard for premises in the Coastal planning area is available on Council's Flood Check website Development Report via https://www.moretonbay.qld.gov.au/floodcheck/.</p> <p>Note - Reporting to be prepared in accordance with Planning scheme policy – Flood hazard, Coastal hazard and Overland flow.</p>	<p>E3.1</p> <p>Development is in accordance with the following:</p> <ul style="list-style-type: none"> a. a site based coastal engineering report from a suitably qualified Registered Professional Engineer Queensland which identifies the coastal hazard and the structural approach to be utilised for the building work; b. a structural engineering design which ensures that the building work and any associated earthworks are capable of withstanding the nature of the coastal hazard event to which the building will be subject. <p>Note - New buildings not on land already filled to the flood planning level will require a structural engineering design capable of withstanding the nature of the hazard(s) to which the building will be subject, to be supported by a report (or multiple reports) prepared by a Registered Professional Engineer Queensland that identifies the coastal hazard and the structural approach to be utilised. Information on the risk of a coastal hazard for premises in the Coastal planning area is available on Council's Flood Check website Development Report via https://www.moretonbay.qld.gov.au/floodcheck/.</p> <p>Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>
	<p>E3.2</p> <p>Development ensures that a habitable floor is located, designed and constructed to at least the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p>
	<p>E3.3</p>

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	<p>Development ensures that building work for a non-habitable room below the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' has a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p> <p><i>Development involving building work in the High risk storm tide inundation area or Medium risk storm tide inundation area</i></p> <p>E3.4</p> <p>Development ensures that a fence is at least 50% permeable.</p>
<p>PO4</p> <p>Development ensures that where earthworks alone cannot ensure the development achieves the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals', a building is designed and constructed using pier and pole construction to achieve the required storm tide immunity in the Defined Flood Event.</p>	<p>No example provided.</p>
<p>PO5</p> <p>Development maintains a functional and attractive relationship with the adjacent street frontage.</p> <p><i>Note -- This is particularly relevant for commercial uses in centres with a strong 'town-centre' pedestrian realm that also may be affected by flood, or for residential uses to maintain an attractive presentation to the street.</i></p>	<p>E5</p> <p>Development for a residential dwelling house where pier and pole construction is utilised:</p> <ol style="list-style-type: none"> uses screening around the understorey of the dwelling to ensure the understorey is not visible from the street; allows for the flow of flood water through the understorey.
<p>PO6</p> <p>Development does not increase the potential for erosion, scour or flood damage either on the premises or on other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain.</p> <p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in the Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	<p>No example provided.</p>

<p>PO7</p> <p>Development ensures that an essential electrical service is located to achieve the required storm tide immunity in the Defined Flood Event and maintain public safety at all times.</p> <p>Note - An essential electrical service includes services defined as utilities and customer dedicated substation⁽⁸⁰⁾ in <i>Mandatory Part 3.5 – Construction of buildings in flood hazard areas</i> of the <i>Queensland Development Code</i>.</p>	<p>E7</p> <p>Development ensures that an essential electrical service is located above the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p> <p>Note - An essential electrical service includes services defined as utilities and customer dedicated substation⁽⁸⁰⁾ in <i>Mandatory Part 3.5 – Construction of buildings in flood hazard areas</i> of the <i>Queensland Development Code</i>.</p>
<p>Material change of use or building work for all other land uses (other than a dwelling house⁽²²⁾) in the Balance area</p>	
<p>PO8</p> <p>Development is resilient to a coastal hazard event by ensuring design and built form account for the potential risks of flooding.</p>	<p><i>Development involving building work for a residential use</i></p>
	<p>E8.1</p> <p>Development ensures that a habitable floor is located, designed and constructed to at least the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p>
	<p>E8.2</p> <p>Development ensures that building work for a non-habitable room below the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' has a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p>
	<p><i>Development involving building work for a non-residential use</i></p>
	<p>E8.3</p> <p>Development ensures that the finished floor level is located, designed and constructed to at least the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p>
	<p>E8.4</p>

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	<p>Development ensures that car parking areas below the flood planning level in Table 8.2.1.3 have a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p> <p>Development ensures that a non-habitable room below the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' has a high water resistance.</p>
<p>PO9</p> <p>Development ensures that a use which requires an interface with the public realm (including a commercial and residential use) maintains a functional and attractive relationship with the adjacent street frontage.</p> <p>Note - This is particularly relevant for commercial uses in centres with a strong 'town-centre' pedestrian realm that also may be affected by flood, or for residential uses to maintain an attractive presentation to the street.</p>	<p>E9.1</p> <p>Development for a residential use where pier and pole construction is utilised:</p> <ol style="list-style-type: none"> uses screening around the understorey of the dwelling; allows for the flow of flood water through the understorey. <p>E9.2</p> <p>Development for a commercial building or structure maintains an active street frontage through:</p> <ol style="list-style-type: none"> providing clear pedestrian access from any adjacent footpath to the floor level of the commercial activity; providing a retail or food and beverage use, if consistent with the overall outcomes of the applicable zone and precinct, which interface with and overlook the street; or urban design treatments which screen the understorey of the building from view from the adjacent street frontage but must not impede storm tide flow.
<p>PO10</p> <p>Development ensures that public safety and risk to the environment are not adversely affected by a detrimental impact of floodwaters up to the Defined Flood Event on a hazardous chemical located or stored on the premises.</p>	<p>E10.1</p> <p>Development ensures that a hazardous chemical is located or stored at least above the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p> <p>Note - Refer to the <i>Work Health and Safety Act 2011</i> and associated Regulation and Guidelines, the <i>Environmental Protection Act 1994</i> and the relevant building assessment provisions under the <i>Building Act 1975</i> for requirements related to the manufacture and storage of hazardous substances.</p>

Material change of use or building work for all other land uses (other than a Dwelling house⁽²²⁾) in the Erosion Prone Area, High risk storm tide inundation area and Medium risk storm tide inundation area	
<p>PO11</p> <p>Development is:</p> <ul style="list-style-type: none"> a. limited in the High risk storm tide inundation area to avoid the intolerable risk of the coastal hazard; b. managed in the Erosion Prone Area and Medium risk storm tide inundation area to mitigate the tolerable risk of the coastal hazard. <p>Note - The overall outcomes of this code identify the development outcomes which are intended so as to avoid the intolerable or tolerable risk of the coastal hazard applicable to the premises in the relevant sub-categories of the Coastal planning area.</p>	No example provided.
<p>PO12</p> <p>Development maintains personal safety at all times, such that:</p> <ul style="list-style-type: none"> a. a vulnerable land use (flood and coastal) is not located in the Erosion Prone Area, High risk storm tide inundation area or the Medium risk storm tide inundation area; b. new buildings are not located in the High risk storm tide inundation area included in the Limited development zone; c. evacuation capability from the development or other premises is not hindered or made more complicated and there is no significant additional burden placed on emergency services personnel; d. the isolation of persons in the Defined Flood Event is avoided. 	No example provided.
<p>PO13</p> <p>Development in the Erosion Prone Area only occurs on a lot zoned for urban purposes in a manner that:</p> <ul style="list-style-type: none"> a. accommodates natural coastal processes, including climate change and sea level rise; b. achieves the following: <ul style="list-style-type: none"> i. avoids coastal erosion risks; or ii. manages coastal erosion risks through a strategy of planned retreat; or iii. mitigates coastal erosion risks if there are no adverse local drainage impacts, flooding and coastal impacts on other premises, public land, watercourses, roads or infrastructure or impacts on natural riverine 	<p>E13</p> <p>Development:</p> <ul style="list-style-type: none"> a. constitutes or includes temporary or relocatable structures, and these structures and the ongoing use of the premises are subject to the natural processes affecting the site; or b. installs and maintains coastal protection works to mitigate adverse impacts to people and property from coastal erosion within the premises in a manner which accommodates natural coastal processes without detrimental impacts on other premises; or c. is located, designed and constructed to withstand the expected coastal erosion impacts.

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<p>and coastal processes or flood warning times.</p> <p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in the Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	
<p>PO14</p> <p>Development is resilient to a coastal hazard event by ensuring design and built form account for the potential risks of the coastal event (including storm tide inundation, wave action and coastal erosion).</p> <p>Note - New buildings not on land already filled to the flood planning level will require a structural engineering design capable of withstanding the nature of the hazard(s) to which the building will be subject, to be supported a report (or multiple reports) prepared by a Registered Professional Engineer Queensland that identifies the coastal hazard and the structural approach to be utilised. Information on the risk of a coastal hazard for premises in the Coastal planning area is available on Council's Flood Check website Development Report via https://www.moretonbay.qld.gov.au/floodcheck/.</p> <p>Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	<p>E14.1</p> <p>Development in the Erosion Prone Area, High risk storm tide inundation area and Medium risk storm tide inundation area is in accordance with the following:</p> <ol style="list-style-type: none"> a site based coastal engineering report from a suitably qualified Registered Professional Engineer Queensland which identifies the coastal hazard and the structural approach to be utilised for the building work; a structural engineering design which ensures that the building work and any associated earthworks are capable of withstanding the nature of the coastal hazard event to which the building will be subject. <p>Note - New buildings not on land already filled to the flood planning level will require a structural engineering design capable of withstanding the nature of the hazard(s) to which the building will be subject, to be supported a report (or multiple reports) prepared by a Registered Professional Engineer Queensland that identifies the coastal hazard and the structural approach to be utilised. Information on the risk of a coastal hazard for premises in the Coastal planning area is available on Council's Flood Check website Development Report via https://www.moretonbay.qld.gov.au/floodcheck/.</p> <p>Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p> <p><i>Development involving building work for a residential use</i></p> <p>E14.2</p> <p>Development ensures that a habitable floor is located, designed and constructed to at least the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p> <p><i>Development involving building work for a non-residential use</i></p> <p>E14.3</p>

	Development ensures that the finished floor level is located, designed and constructed to at least the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.
	<i>Development involving building work for all uses</i>
	<p>E14.4</p> <p>Development ensures that a fence is at least 50% permeable.</p>
	<p>E14.5</p> <p>Development ensures that building work for a non-habitable room located below the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' has a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p>
<p>PO15</p> <p>Development ensures that where earthworks alone cannot ensure the development achieves the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals', a building is designed and constructed using pier and pole construction to achieve the required storm tide immunity in the Defined Flood Event.</p>	No example provided.
<p>PO16</p> <p>Development does not:</p> <ol style="list-style-type: none"> directly, indirectly and cumulatively cause any increase in water flow velocity or level; does not increase the potential for erosion, scour or flood damage either on-site or on a surrounding property, public land, watercourse, road or infrastructure or elsewhere in the floodplain. 	No example provided.

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<p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	
<p>PO17</p> <p>Development supports, and does not unduly burden, disaster management responses and recovery capacity and capabilities for a coastal hazard event up to and including the Defined Flood Event.</p>	<p>No example provided.</p>
<p>PO18</p> <p>Development has access which, having regard to the hydraulic hazard, provides for safe vehicular and pedestrian movement and emergency services access.</p>	<p>No example provided.</p>
<p>PO19</p> <p>Development ensures that a use which requires an interface with the public realm (including a commercial and residential use) maintains a functional and attractive relationship with the adjacent street frontage.</p> <p>Note - This is particularly relevant for commercial uses in centres with a strong 'town-centre' pedestrian realm that also may be affected by flood, or for residential uses to maintain an attractive presentation to the street.</p>	<p>E19.1</p> <p>Development for a residential dwelling accommodation building where pier and pole construction is utilised:</p> <ol style="list-style-type: none"> uses screening around the understorey of the dwelling that is a minimum of 50% permeable to ensure the understorey is not visible from the street; allows for the flow of storm tide water through the understorey.
	<p>E19.2</p> <p>Development for a commercial building and structure maintains an active street frontage through:</p> <ol style="list-style-type: none"> providing clear pedestrian access from any adjacent footpath to the floor level of the commercial activity; providing a retail or food and beverage use, if consistent with the overall outcomes of the applicable zone and precinct, which interfaces with and overlooks the street; or urban design treatments which screen the understorey of the building from view from the adjacent street frontage but do not impede storm tide flow.
<p>POXX</p> <p>Development ensures that an essential electrical service is located to achieve the required storm tide immunity in the Defined Flood Event and maintain public safety at all times.</p>	<p>EXX</p> <p>Development ensures that an essential electrical service is located above the flood planning level.</p>

<p>Note - An essential electrical service includes services defined as utilities and customer dedicated substation (80) in <i>Mandatory Part 3.5 – Construction of buildings in flood hazard areas of the Queensland Development Code</i>.</p>	<p>Note - An essential electrical service includes services defined as utilities and customer dedicated substation (80) in <i>Mandatory Part 3.5 – Construction of buildings in flood hazard areas of the Queensland Development Code</i>.</p>
Reconfiguring a lot (boundary realignment)	
<p>PO20</p> <p>Development is designed to:</p> <ol style="list-style-type: none"> ensure personal safety at all times; not increase the potential for erosion, scour or flood damage either on the premises or other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain; not increase the risk to people, property and infrastructure located on the premises and other premises and where applicable the risk for future occupants is mitigated. <p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in the Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	<p>E20.1</p> <p>Development ensures that the development footprint is located in an area other than a High risk storm tide inundation area or Erosion Prone Area.</p> <p>E20.2</p> <p>Development ensures that the entry points into the development are located to provide a safe and clear evacuation route path.</p>
Reconfiguring a lot (other than by boundary realignment)	
<p>PO21</p> <p>Development is compatible with the intolerable or tolerable level of risk of the coastal hazard applicable to the premises such that reconfiguring a lot for creating lots by subdividing another lot:</p> <ol style="list-style-type: none"> in the Erosion Prone Area, is only for the purpose of a Park or Permanent plantation unless all resultant lots provide the required minimum lot size outside the Erosion Prone Area; in the High risk storm tide inundation area, is only for the purposes of a Park or Permanent plantation unless: <ol style="list-style-type: none"> in the Rural residential zone where the minimum lot size for each rural residential lot is provided outside the High risk storm tide inundation area; or in the Rural zone where a development footprint (flood and coastal) is provided outside the High risk area; or occurs in the Medium risk storm tide inundation area: <ol style="list-style-type: none"> in the Centre zone, Industry zone, or Recreation and open space zone, where 	<p>No example provided.</p>

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<p>not for the purpose of a vulnerable use (flood and coastal); or</p> <ul style="list-style-type: none"> ii. if in the Rural residential zone , where the minimum lot size for each rural residential lot is provided outside the Medium risk storm tide inundation area; or iii. in the Rural zone where a development footprint (flood and coastal) is provided outside the Medium risk area; or iv. in any other zone, where: <ul style="list-style-type: none"> A. all resultant lots are located outside the Medium risk storm tide inundation area (or at the development planning level where filling is permitted) other than those for the purposes of a Park or Permanent plantation; or B. for a lot on a building format plan under the <i>Land Title Act 1994</i> which is subject to a community titles scheme under the <i>Body Corporate and Community Management Act 1997</i> and is associated with a material of use; or <p>d. in the Balance coastal planning area, where consistent with the overall outcomes of the applicable zone and precinct.</p> <p>Note - The overall outcomes of this code identify the development outcomes which are intended so as to avoid the intolerable or tolerable risk of the coastal hazard applicable to the premises in the relevant sub-categories of the Coastal planning area.</p>	
<p>PO22</p> <p>Development is designed to ensure personal safety at all times such that:</p> <ul style="list-style-type: none"> a. storm tide immunity up to the Flood planning level is achieved; b. the road layout avoids isolation in a coastal hazard event and does not impede evacuation; c. signage is utilised to ensure that community members have a clear understanding of the nature of the risk of storm tide inundation in the area. 	<p><i>If the ground level is to be filled to the Flood planning level as permitted by Table 8.2.1.4 'Fill requirements'</i></p> <p>E22.1</p> <p>Development ensures that finished ground level for all additional lots, excluding a Park,⁽⁵⁷⁾ complies with the requirements of Table 8.2.1.4 'Fill requirements'.</p> <p>E22.2</p> <p>Development ensures that the road and pathway layout:</p> <ul style="list-style-type: none"> a. ensures residents are not physically isolated from an adjacent storm tide inundation free urban area; b. provides a safe and clear evacuation route path by:

	<ul style="list-style-type: none"> i. locating entry points into the development above the requirements set out in Appendix C of Planning scheme policy - Integrated design and avoiding cul-de-sac or other non-permeable layouts; ii. direct and simple routes to a main carriageway. <p>Note – 'Pathway' in this instance relates to pedestrian and non-pedestrian routes internal to a development site that are not specifically roads – for example, pedestrian pathways within a hotel⁽³⁷⁾ development or internal roads in a large townhouse development.</p> <p>Note - It is important to ensure that new reconfigurations are not isolated from other urban areas in the event of a flood.</p>
	<p>E22.3</p> <p>Development ensures that a new road and development access are provided in accordance with the requirements set out in Appendix C of Planning scheme policy - Integrated design.</p>
	<p>E22.4</p> <p>Development ensures that:</p> <ul style="list-style-type: none"> a. signage is provided on a road or pathway indicating the position and path of all safe evacuation routes off the premises; and b. if the premises contains or is within 100m of an area subject to the Defined Flood Event, hazard warning signage and depth indicators are provided at each key hazard point, such as at a waterway crossing or an entrance to a low-lying reserve. <p>Note – 'Pathway' in this instance relates to pedestrian and non-pedestrian routes internal to a development site that are not specifically roads – for example, pedestrian pathways within a hotel⁽³⁷⁾ development or internal roads in a large townhouse development.</p>
	<p><i>If the ground level is to be filled other than as permitted by Table 8.2.1.4 'Fill requirements'</i></p> <p>No example provided.</p>
<p>PO23</p> <p>Development ensures that infrastructure (excluding a road and associated infrastructure):</p>	<p><i>If in the Balance coastal planning area</i></p>
	<p>E23</p> <p>Development ensures that:</p>

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<p>a. is located outside of the Erosion Prone Area, High risk storm tide inundation area and Medium risk storm tide inundation area; or</p> <p>b. is otherwise located in the Erosion Prone Area, High risk storm tide inundation area or Medium risk storm tide inundation area to function during and after all coastal hazard events up to and including the Defined Flood Event.</p>	<p>a. any component of infrastructure which is likely to fail to function or may result in contamination when inundated by storm tide is located above the Flood planning level; or</p> <p>b. infrastructure is designed, located and constructed to resist the hydrostatic and hydrodynamic forces as a result of inundation by the Defined Flood Event.</p> <p><i>If in the Erosion Prone Area, High risk storm tide inundation area or Medium risk storm tide inundation area</i></p> <p>No example provided.</p>
Additional criteria for works whether or not associated with a material change of use, building work or reconfiguring a lot	
<p>PO24</p> <p>Development ensures that filling complies with the requirements of Table 8.2.1.4 'Fill requirements'.</p>	<p>No example provided.</p>
<p>PO25</p> <p>Development does not:</p> <p>a. directly, indirectly and cumulatively cause any increase in water flow velocity or level;</p> <p>b. increase the potential for erosion, scour or flood damage either on the premises or other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain;</p> <p>c. change the timing of the flood wave or impact on flood warning times.</p> <p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in the Planning scheme policy - Flood Hazard, Coastal Hazard and Overland Flow.</p>	<p>No example provided.</p>
Additional criteria for development involving hazardous chemicals	
<p>PO26</p> <p>Development ensures that hazardous chemicals are not located or stored in the Erosion Prone Area or High risk storm tide inundation area.</p>	<p>No example provided.</p>
<p>PO27</p> <p>Development in the Medium risk storm tide inundation area and Balance coastal planning area ensures that public safety and risk to the environment are not</p>	<p>E27</p> <p>Development ensures that a hazardous chemical is located or stored at least above the flood planning level in Table 8.2.1.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p>

adversely affected by a detrimental impact of a coastal hazard event on a hazardous chemical located or stored on the premises.	Note - Refer to the <i>Work Health and Safety Act 2011</i> and associated Regulation and Guidelines, the <i>Environmental Protection Act 1994</i> and the relevant building assessment provisions under the <i>Building Act 1975</i> for requirements related to the manufacture and storage of hazardous substances.
Additional criteria for development for community infrastructure	
PO28 Development involving community infrastructure is not located in the Erosion Prone Area or High risk storm tide inundation area.	No example provided.
PO29 Development for community infrastructure in the Medium risk storm tide inundation area or the Balance coastal planning area: <ul style="list-style-type: none"> a. remains functional to serve community needs during and immediately after the Defined Flood Event; b. is designed, sited and operated to avoid adverse impacts on the community or the environment due to the impacts of storm tide inundation on infrastructure, facilities or access and egress routes; c. retains essential site access during the Defined Flood Event; d. is able to remain functional even when other infrastructure or services may be compromised in the Defined Flood Event. 	No example provided.
Additional criteria for development for a Park⁽⁵⁷⁾	
PO30 Development for a Park ⁽⁵⁷⁾ ensures that the design and layout responds to the nature of the coastal hazard affecting the premises in order to: <ul style="list-style-type: none"> a. maximise public benefit and enjoyment; b. minimise impacts on the asset life and integrity of park⁽⁵⁷⁾ structures; c. minimise maintenance and replacement costs. 	E30 Development for a Park ⁽⁵⁷⁾ ensures works are provided in accordance with the requirements set out in Appendix B of Planning scheme policy - Integrated design.

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Table 8.2.1.3 Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals

Coastal planning area	Defined freeboard	Flood planning level
Land in the Coastal planning area which is outside the Erosion Prone Area.	300mm	Defined Flood Event + 300mm
Land in the Coastal planning area which is in the Erosion Prone Area.	500mm	Defined Flood Event + 500mm

Note - If the premises is subject to another overlay which states a flood planning level, the flood planning level that provides the highest level of immunity applies.

Table 8.2.1.4 Fill requirements

Coastal planning area	Fill level
Land in the Erosion Prone Area.	No filling permitted.
Land in the High risk storm tide inundation area included in the Limited development zone.	No filling permitted.
Land in the High risk storm tide inundation area not included in the Limited development zone.	<p>No filling permitted.</p> <p>Note - filling is only permitted:</p> <ol style="list-style-type: none"> Where for the creation of stormwater infrastructure such as detention basins, bioretention and levees; or In isolated areas of High risk storm tide inundation and where the storm tide maximum flow velocity is less than 0.5 metres per second, filling may be permitted in accordance with the requirements for the Medium risk storm tide inundation area.
Land in the Medium risk storm tide inundation area.	<p>Filling permitted - Development Footprint as a minimum to the Year 2100 Highest Astronomical Tide level.</p> <p>For reconfiguring a lot - filling permitted as a minimum to the Flood planning level.</p>
Land in the Balance area of the Coastal planning area.	<p>Filling permitted as a minimum to the Flood planning level.</p> <p>required - Development Footprint as a minimum to the Defined Flood Event.</p>

Note - The Year 2100 Highest Astronomical Tide level is available on Council's Flood Check [Development Report website](https://www.moretonbay.qld.gov.au/floodcheck/) via <https://www.moretonbay.qld.gov.au/floodcheck/>.

8.2.2 Flood hazard overlay code

8.2.2.1 Application - Flood hazard overlay

1. This code applies to development within the mapped extent of the Flood hazard overlay, if that development is identified as:
 - a. accepted development subject to requirements or assessable development, and this code is listed as an applicable code in the assessment benchmarks for assessable development and requirements for accepted development column of a table of assessment (Part 5.10);
 - b. ~~Aaa~~ assessable development - impact assessment.
2. The Flood hazard overlay code applies to land in the Flood planning area identified on a Flood hazard overlay map and includes land in the Flood planning area in the following sub-categories:
 - a. High risk area;
 - b. Medium risk area;
 - c. Balance flood planning area.
3. When using this code, reference should be made to section 5.3.2 and, where applicable, section 5.3.3, in Part 5.

8.2.2.2 Purpose - Flood hazard overlay

1. The purpose of the Flood hazard overlay code is to:
 - a. identify whether an area is subject to a flood hazard;
 - b. minimise the risk to life, property, community, economic development and the environment from the flood hazard by:
 - i. limiting development in an area of extremely unacceptable intolerable risk of flood hazard to avoid the risk of the flood hazard;
 - ii. managing development in an area of unacceptable intolerable risk and tolerable risk of flood hazard to mitigate the risk of the flood hazard;
 - c. ensure that development does not increase the potential for adverse impacts on the premises or other premises, public lands, watercourses, roads or infrastructure without appropriate mitigation.
2. The purpose of the Flood hazard overlay code will be achieved through the following overall outcomes:
 - a. Development in the High risk flood hazard area included in the Limited development zone, avoids the extremely unacceptable intolerable risk of the flood hazard by ensuring that:
 - i. a material change of use is only for the following uses if the intolerable risk of flood hazard to people, property and infrastructure located on the premises and other premises is avoided:
 - A. Outdoor sport and recreation⁽⁵⁵⁾; or
 - B. Park⁽⁵⁷⁾; or
 - C. Permanent plantation⁽⁵⁹⁾; or
 - D. Cropping⁽¹⁹⁾ (where involving forestry for wood production);

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- ii. reconfiguring a lot for boundary realignment only occurs if the intolerable risk of flood hazard to people, property and infrastructure located on the premises and other premises is not increased and where practicable the intolerable risk of flood hazard for future occupants is mitigated;
 - iii. reconfiguring a lot for creating lots by subdividing another lot only occurs for the purposes of Park or Permanent plantation or ensures that lots have sufficient area outside of the zone for development consistent in the adjoining zone and precinct;
 - iv. building work is less than 50m² in area and associated with a use in paragraph (i).
 - v. earthworks do not occur except where associated with a previous approval..
- b. Development in the High risk area not included in the Limited development zone, manages and mitigates the unacceptable intolerable risk of the flood hazard by ensuring that:
- i. a material change of use is only for the following uses if consistent with the overall outcomes of the applicable zone and precinct and the intolerable risk of flood hazard to people, property and infrastructure located on the premises and other premises is avoided:
 - A. Dwelling house⁽²²⁾; or
 - B. Outdoor sport and recreation⁽⁵⁵⁾; or
 - C. Park⁽⁵⁷⁾; or
 - D. Permanent plantation⁽⁵⁹⁾; or
 - E. Cropping⁽¹⁹⁾ (where involving forestry for wood production); or
 - F. Tourist park⁽⁸⁴⁾; or
 - G. Home based business⁽³⁵⁾;
 - ii. reconfiguring a lot for boundary realignment only occurs if the intolerable risk of flood hazard to people, property and infrastructure located on the premises and other premises is not increased and where practicable the intolerable risk of flood hazard for future occupants is mitigated;
 - iii. reconfiguring a lot for creating lots by subdividing another lot is only for the following:
 - A. in the Rural zone, where consistent with the overall outcomes of the applicable rural zone and precinct the required minimum development footprint (flood and coastal) for each rural lot is provided outside the High or Medium risk area of the Flood planning area; or
 - B. in the Rural residential zone, residential lots provide the required minimum lot size outside the High or Medium risk area of the Flood planning area; or
 - C. in any other zone, for the purposes of a Park⁽⁵⁷⁾ or Permanent plantation⁽⁵⁹⁾;
 - iv. building work complies with the flood planning level, engineering design and resilient materials requirements;
 - v. earthworks do not occur except where associated with a previous approval;
- c. Development in the Medium risk area manages and mitigates the tolerable risk of flood hazard by ensuring that:
- i. a material change of use is only for the following uses if consistent with the overall outcomes of the applicable zone and precinct and the risk to people, property and infrastructure located on the premises and other premises is avoided or mitigated:

- A. Dwelling house⁽²²⁾; or
 - B. Outdoor sport and recreation⁽⁵⁵⁾; or
 - C. Park⁽⁵⁷⁾; or
 - D. Permanent plantation⁽⁵⁹⁾; or
 - E. Cropping⁽¹⁹⁾ (where involving forestry for wood production); or
 - F. Tourist park⁽⁸⁴⁾; or
 - G. Home based business⁽³⁵⁾; or
 - H. Non-residential uses where not involving a vulnerable land use (flood and coastal).
- ii. reconfiguring a lot for boundary realignment only occurs if the risk of flood hazard to people, property and infrastructure located on the premises and other premises is not increased and where practicable the risk of flood hazard for future occupants is mitigated;
 - iii. reconfiguring a lot for creating lots by subdividing another lot is only for the following:
 - A. in the Rural zone, ~~Gentle zone, Industry zone, Recreation and open space zone, or Township zone~~; where the required minimum development footprint (flood and coastal) for each rural lot is provided outside the High or Medium risk area of the Flood planning area ~~not for a residential purpose or vulnerable use (flood and coastal)~~ and the development is consistent with the overall outcomes of the existing zone and precinct;
 - B. in the Rural residential zone, ~~where the minimum lot size for each rural residential lot is provided outside the High risk or Medium risk area~~ where the required minimum development footprint (flood and coastal) for each rural residential lot is provided outside the Medium risk area of the Flood planning area;
 - C. in any other zone, where all resultant lots are located outside the High risk or Medium risk area other than those for the purposes of Park⁽⁵⁷⁾ or Permanent plantation⁽⁵⁹⁾.
 - iv. building work complies with the flood planning level, engineering design and resilient materials requirements;
 - v. earthworks ~~do not only~~ occur ~~if except where~~ :
 - A. in the Balance coastal planning area of the Coastal planning area or in the Medium risk storm tide inundation area of the Coastal planning area where in the General Residential Zone, Centre Zone, Community Facilities Zone, Recreation and Open Space Zone or Industry Zone;
 - B. any filling is limited to raising the ground level to as a minimum the Year 2100 Highest Astronomical Tide level;

Note: The Year 2100 Highest Astronomical Tide level is available on Council's Flood Check Development Report via <https://www.moretonbay.qld.gov.au/floodcheck/>.
 - C. there are no adverse local drainage impacts, flooding and coastal impacts on other premises, public land, watercourses, roads or infrastructure or impacts on natural riverine and coastal processes or flood warning times; or
 - D. associated with a previous approval.
 - d. Development of premises subject to a drainage master plan manages and mitigates the risk of flood hazard and any coastal hazard in this area, such that:

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Note - The premises subject to a drainage master plan are the premises included in the General residential zone - Next generation neighbourhood precinct or General residential zone - Urban neighbourhood precinct located in a drainage master plan area identified on Figures 8.2.2.1 - 8.2.2.10.

- i. a drainage master plan for the relevant Drainage investigation area demonstrates that the development:
 - A. adequately addresses the significant existing and future flood hazards and any coastal hazards affecting the Drainage investigation area without cost to the local government;
 - B. adequately addresses the significant infrastructure limitations of the Drainage investigation area without cost to the local government;
 - C. does not result in adverse local drainage impacts, flooding impacts on other premises, public land, watercourses, roads or infrastructure, or impacts on natural riverine and coastal processes or flood warning times;
- ii. where it is demonstrated by an approved drainage master plan that the risk to people, property and infrastructure located on the premises and other premises is avoided or mitigated:
 - A. a material change of use is limited to uses consistent with the overall outcomes of the applicable zone and precinct and complies with the approved Drainage master plan;
 - B. reconfiguring a lot is consistent with the overall outcomes of the applicable zone and precinct and complies with the approved Drainage master plan;
 - C. building work complies with the approved drainage master plan;
 - D. earthworks comply with the approved drainage master plan.
- e. Development in the Balance flood planning area manages and mitigates the tolerable risk of the flood hazard by ensuring that:
 - i. a material change of use is only for uses consistent with the overall outcomes of the applicable zone and precinct if the risk to people, property and infrastructure located on the premises and other premises is avoided or mitigated;
 - ii. reconfiguring a lot is consistent with the overall outcomes of the applicable zone and precinct;
 - iii. building work complies with the flood planning level and resilient materials requirements;
 - iv. earthworks only occur, if:
 - A. filling ~~is limited to~~ **raises** raising the ground level ~~as a minimum~~ to the **Defined Flood Event Flood planning level**;
 - B. there are no adverse local drainage impacts, flooding and coastal impacts on other premises, public land, watercourses, roads or infrastructure or impacts on natural riverine and coastal processes or flood warning times.
- f. Development in the Flood planning area:
 - i. supports, and does not unduly burden the disaster management response and recovery capacity and capabilities during and after significant flood events;

Note - The 1% AEP 2014 Information on the flood hazard and flood planning level for individual sites is available on Council's Flood Check **Development Report** [website](https://www.moretonbay.qld.gov.au/floodcheck/) via <https://www.moretonbay.qld.gov.au/floodcheck/>.

- ii. provides for efficient evacuation of on-site persons and facilitates direct and simple access for evacuation personnel and resources during flood events, while ensuring development does not hinder or place additional complexities upon evacuation activities for other premises;
- iii. avoids isolation of persons for flood events up to and including the Defined Flood Event;
- iv. provides for siting, built form, layout, and access (including evacuation access) which responds to the risk of the flood hazard and minimises risk to personal safety in all flood hazard events up to and including the Defined Flood Event;
- v. is resilient to flood events by ensuring the siting and design of development accounts for the potential risks to property associated with flood hazards;
- vi. directly, indirectly and cumulatively avoids an increase in the severity of flood hazards and potential for damage on the premises or to other premises or elsewhere in the floodplain;
- vii. involving essential community infrastructure remains functional during and immediately after a flood event up to and including the Defined Flood Event;
- viii. avoids the accidental release of hazardous materials as a result of a flood event;
- ix. maintains natural processes and the protective function of landforms and vegetation;
- x. does not impact adversely on the ability for future flood hazard mitigation measures to be implemented on other premises.

8.2.2.3 Requirements for assessment

If development is to be categorised as accepted development subject to requirements it must comply with the requirements for accepted development set out in Part A, Table 8.2.2.1. Where development does not meet a requirement for accepted development (RAD) within Part A Table 8.2.2.1, the category of development changes to assessable development under the rules outlined in section 5.3.3. (1), and assessment is against the corresponding performance outcome (PO) identified in the table below. This only occurs whenever a RAD is not met, and is therefore limited to the subject matter of the RADs that are not complied with. To remove any doubt, for those RADs that are complied with, there is no need for assessment against the corresponding PO.

Requirements for accepted development (RAD)	Corresponding performance outcomes
RAD1	PO5 (if in the Balance flood planning area) PO11 (if in the High risk area or Medium risk area)
RAD2 (for MCU or building work for dwelling house)	PO2
RAD2 (for all other development)	PO5 (if in the Balance flood planning area) PO11 (if in the High risk area or Medium risk area)
RAD3	PO5 (if in the Balance flood planning area) PO11 (if in the High risk area or Medium risk area)
RAD4 (for MCU or building work for dwelling house)	PO2
RAD4 (for all other development)	PO5 (if in the Balance flood planning area) PO11 (if in the High risk area or Medium risk area)
RAD5 (for MCU or building work for dwelling house)	PO5

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RAD5 (for all other development)	PO6 (if in the Balance flood planning area) PO13 (if not in the Balance flood planning area)
RAD6	PO24
RAD7	PO29
RAD8	PO11

Part A - Requirements for accepted development subject to requirements - Flood hazard overlay

Table 8.2.2.1 Requirements for accepted development - Flood hazard overlay

Requirements for accepted development	
Section A – If for accepted development subject to requirements for material change of use in an existing building	
RAD1	<p>Development ensures that new building materials utilised as a consequence of the change of use for habitable and non-habitable rooms below the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' have a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p>
Section B – If for accepted development subject to requirements other than a material change of use in an existing building	
RAD2	Development ensures that a habitable floor level that is the subject of the development is located, designed and constructed to the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.
RAD3	Development ensures that a finished floor level the subject of the development is located, designed and constructed to the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.
RAD4	<p>Development ensures that building materials for non-habitable rooms below the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' have a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p>
RAD5	<p>Development on land below the level of the Defined Flood Event involving earthworks complies with the requirements of Table 8.2.2.4 'Fill Requirements' and does not increase the potential for erosion, scour or flood damage either on the premises or on other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain.</p> <p>Note - Prior to development occurring, an investigation into the potential impacts of earthworks should be undertaken by a suitably qualified person so that a prospective developer can satisfy themselves the development meets this RAD. Guidance on the matters to be addressed is provided in Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>

RAD6	Development that involves a hazardous chemical ensures the hazardous chemical is located and stored at or above the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.
RAD7	Development for a Park ensures works are provided in accordance with the requirements set out in Appendix B of the Planning scheme policy - Integrated design.
RAD8	Development for an Advertising device is located, designed and constructed to resist the hydrostatic and hydrodynamic forces as a result of inundation by the Defined Flood Event.

Part B - Criteria for assessable development - Flood hazard overlay

Where development is listed as assessable development - code assessment in the Table of Assessment, the assessment benchmarks for that development are set out in Part B, Table 8.2.2.2 as well as the applicable purpose statement and overall outcomes.

Where development is assessable development - impact assessment, the assessment benchmarks are the applicable provisions within the entire planning scheme.

Table 8.2.2.2 Assessable development - Flood hazard overlay

Performance outcomes	Examples that achieve aspects of the Performance Outcomes
Material change of use or building work for a dwelling house⁽²²⁾	
<p>PO1</p> <p>Development in the High risk flood hazard area included in the Limited development zone for:</p> <ol style="list-style-type: none"> a material change of use and associated building work for a Dwelling house⁽²²⁾ does not occur; building work not associated with a material change of use for a Dwelling house⁽²²⁾ only occurs for an existing lawful use. 	<p>No example provided.</p>
<p>PO2</p> <p>Development is resilient to flood events by ensuring design and built form account for the potential risks of flooding.</p> <p>Note - New buildings within the High risk area or Medium risk area where the estimated maximum flow velocity exceeds 1.5m/s will require a structural engineering design capable of withstanding the nature of the hazard(s) to which the building will be subject consistent with the requirements of the relevant building assessment provisions, to be supported by a report (or multiple reports) prepared by a Registered Professional Engineer Queensland that identifies the flood hazard and the structural approach to be utilised. Information on the flood hazard for individual sites is available on Council's Flood eCheck Development Report website via https://www.moretonbay.qld.gov.au/floodcheck/.</p> <p>Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	<p>E2.1</p> <p>Development ensures that a habitable floor is located, designed and constructed to at least the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p> <p>Note - The highset 'Queenslander' style house is a resilient low-density housing solution. Higher density residential development should also ensure only non-habitable rooms (e.g. garages) are located on the ground floor.</p> <p>Note - New buildings within the High risk area or Medium risk area where the estimated maximum flow velocity exceeds 1.5m/s will require a structural engineering design capable of withstanding the nature of the hazard(s) to which the building will be subject consistent with the requirements of the relevant building assessment provisions, to be supported by a report (or multiple reports) prepared by a Registered Professional Engineer Queensland that identifies the flood hazard and the structural approach to be utilised. Information on the flood hazard for individual sites is available on Council's Flood</p>

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	<p>eCheck Development Report website via https://www.moretonbay.qld.gov.au/floodcheck/.</p> <p>Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>
	<p>E2.2</p> <p>Development ensures that building work for non-habitable rooms below the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' has a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p>
	<p><i>Development in the High risk area or Medium risk area</i></p>
	<p>E2.3</p> <p>Development ensures that a fence is at least 50% permeable.</p>
<p>PO3</p> <p>Development maintains a functional and attractive relationship with the adjacent street frontage.</p> <p>Note - This is particularly relevant for commercial uses in centres with a strong 'town-centre' pedestrian realm that also may be affected by flood, or for residential uses to maintain an attractive presentation to the street.</p>	<p>E3</p> <p>Development for a residential dwelling where pier and pole construction is utilised:</p> <ol style="list-style-type: none"> uses screening around the understorey of the dwelling to ensure the understorey is not visible from the street; allows for the flow of flood water through the understorey
<p>PO4</p> <p>Development does not increase the potential for erosion, scour or flood damage either on the premises or on other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain.</p> <p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	<p><i>If in the High risk area or Medium risk area of the Flood planning area</i></p>
	<p>E4.1</p> <p>Earthworks do not occur in the High risk area or Medium risk area of the Flood planning area.</p>
	<p><i>If in the Balance flood planning area</i></p>
	<p>No example provided.</p>
<p>For material change of use or building work (excluding material change of use or building work for a dwelling house) in the Balance flood planning area</p>	
<p>PO5</p>	<p><i>Development involving building work for a residential use</i></p>

<p>Development is resilient to a flood hazard event by ensuring design and built form account for the potential risks of flooding.</p>	<p>E5.1</p> <p>Development ensures that a habitable floor is located, designed and constructed to at least the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p> <p>E5.2</p> <p>Development ensures that a non-habitable room below the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' has a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p> <p><i>Development involving building work for a non-residential use</i></p> <p>E5.23</p> <p>Development ensures that the finished floor level is located, designed and constructed to at least the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p> <p>E5.34</p> <p>Development ensures that a non-habitable room car parking below the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' has a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p>
<p>PO6</p> <p>Development ensures earthworks complies with the requirements of Table 8.2.2.4 'Fill Requirements' and does not:</p>	<p>No example provided.</p>

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<ul style="list-style-type: none"> a. directly, indirectly and cumulatively cause any increase in water flow velocity or level; b. increase the potential for erosion, scour or flood damage either on the premises or other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain; c. change the timing of the flood wave or impact on flood warning times. <p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	
<p>P07</p> <p>Development ensures that a use which requires an interface with the public realm, including a commercial and residential use, maintains a functional and attractive relationship with the adjacent street frontage.</p> <p><i>Note -- This is particularly relevant for commercial uses in centres with a strong 'town-centre' pedestrian realm that also may be affected by flood, or for residential uses to maintain an attractive presentation to the street.</i></p>	<p>E7.1</p> <p>Development for a residential use where pier and pole construction is utilised:</p> <ul style="list-style-type: none"> a. uses screening around the understorey of the dwelling that is a minimum of 50% permeable to ensure the understorey is not visible from the street; b. allows for the flow of flood water through the understorey.
	<p>E7.2</p> <p>Development for a commercial building or structure maintains an active street frontage through:</p> <ul style="list-style-type: none"> a. providing clear pedestrian access from any adjacent footpath to the floor level of the commercial activity; b. providing a retail or food and beverage use, if consistent with the overall outcomes of the applicable zone and precinct, which interfaces with and overlooks the street; c. urban design treatments which screen the understorey of the building from view from the adjacent street frontage must not impede flood flow.
<p>P08</p> <p>Development ensures that public safety and risk to the environment are not adversely affected by a detrimental impact of floodwaters up to the Defined Flood Event on a hazardous chemical located or stored on the premises.</p>	<p>E8</p> <p>Development ensures that a hazardous chemical is located or stored at least above the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p>

	Note - Refer to the <i>Work Health and Safety Act 2011</i> and associated Regulation and Guidelines, the <i>Environmental Protection Act 1994</i> and the relevant building assessment provisions under the <i>Building Act 1975</i> for requirements related to the manufacture and storage of hazardous substances.
For all other material change of use or building work	
<p>PO9</p> <p>Development is:</p> <ul style="list-style-type: none"> a. limited in the High risk flood hazard area included in the Limited development zone to avoid the extremely unacceptable intolerable risk of the flood hazard; b. managed in the High risk flood hazard area not included in the Limited development zone to mitigate the unacceptable intolerable risk of the flood hazard; c. managed in the other sub-categories of the Flood planning area to mitigate the tolerable risk of the flood hazard. <p>Note - The overall outcomes of this code identify the development outcomes which are intended so as to avoid or mitigate the intolerable or tolerable risk of the flood hazard applicable to the premises in the relevant sub-categories of the Flood planning area.</p>	No example provided.
<p>PO10</p> <p>Development maintains personal safety at all times, such that:</p> <ul style="list-style-type: none"> a. a vulnerable land use (flood and coastal) is not located in the High risk flood hazard area or Medium risk flood hazard area; b. new buildings are not located in the High risk flood hazard area included in the Limited development zone; c. a residential accommodation building is located in the following: <ul style="list-style-type: none"> i. Balance flood planning area; or ii. the Medium risk area where located in the Medium risk storm tide inundation area of the Coastal hazard overlay or Balance coastal planning area of the Coastal hazard overlay; 	No example provided.

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<p>d. evacuation capability from the development or other premises is not hindered or made more complicated and there is no significant additional burden placed on emergency services personnel;</p> <p>e. the isolation of persons in the Defined Flood Event is avoided.</p> <p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in the Planning scheme policy Flood Hazard, Coastal Hazard and Overland Flow.</p> <p>Note - Development for residential accommodation must mitigate the medium risk for development to proceed in accordance with the Coastal hazard overlay code.</p>	
<p>PO11</p> <p>Development is resilient to a flood hazard event by ensuring design and built form account for the potential risks of the flood hazard event.</p> <p>Note - New buildings within the High risk or Medium risk area where the estimated maximum flow velocity exceeds 1.5m/s will require a structural engineering design capable of withstanding the nature of the hazard(s) to which the building will be subject consistent with the requirements of the relevant building assessment provisions, to be supported by a report (or multiple reports) prepared by a Registered Professional Engineer Queensland that identifies the flood hazard and the structural approach to be utilised. Information on the flood hazard for individual sites is available on Council's Flood eCheck Development Report website via https://www.moretonbay.qld.gov.au/floodcheck/.</p> <p>Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	<p><i>Development involving building work for a residential use</i></p> <p>E11.1</p> <p>Development ensures that a habitable floor is located, designed and constructed to at least the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p> <p>Note - New buildings within the High risk area or Medium risk area where the estimated maximum flow velocity exceeds 1.5m/s will require a structural engineering design capable of withstanding the nature of the hazard(s) to which the building will be subject consistent with the requirements of the relevant building assessment provisions, to be supported by a report (or multiple reports) prepared by a Registered Professional Engineer Queensland that identifies the flood hazard and the structural approach to be utilised. Information on the flood hazard for individual sites is available on Council's Flood eCheck Development Report website via https://www.moretonbay.qld.gov.au/floodcheck/.</p> <p>Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p> <p><i>Development involving building work for a non-residential use</i></p> <p>E11.2</p> <p>Development ensures that the finished floor level is located, designed and constructed to at least the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'.</p> <p>Note - New buildings within the High risk area or Medium risk area will require a structural engineering design capable of withstanding the nature of the hazard(s) to which the building will be subject</p>

	<p>consistent with the requirements of the relevant building assessment provisions, to be supported by a report (or multiple reports) prepared by a Registered Professional Engineer Queensland that identifies the flood hazard and the structural approach to be utilised. Information on the flood hazard for individual sites is available on Council's Flood eCheck Development Report website via https://www.moretonbay.qld.gov.au/floodcheck/.</p> <p>Note - Reporting to be prepared in accordance with Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p> <p>Development involving building work for all uses</p> <p>E11.3</p> <p>Development ensures that a fence is at least 50% permeable.</p> <p>E11.4</p> <p>Development ensures that building work for non-habitable rooms below the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals' has a high water resistance.</p> <p>Note - The Queensland Government Fact Sheet 'Rebuilding after a flood' provides information about water resilient products and building techniques. Available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/WaterResilientProductsAndBuildingTechniquesForRebuildingAfterAFlood.pdf</p>
<p>PO12</p> <p>Development ensures that where earthworks alone cannot ensure the development achieves the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals', a building is designed and constructed using pier and pole construction to achieve the required flood immunity in the Defined Flood Event.</p>	<p>No example provided.</p>
<p>PO13</p> <p>Development ensures that earthworks complies with the requirements of Table 8.2.2.4 'Fill Requirements' and does not:</p> <p>a. directly, indirectly and cumulatively cause any increase in water flow velocity or level;</p>	<p>No example provided.</p>

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<p>b. increase the potential for erosion, scour or flood damage either on the premises or on other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain;</p> <p>c. change the timing of the flood wave or impact on flood warning times.</p> <p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	
<p>PO14</p> <p>Development supports and does not unduly burden, disaster management responses and recovery capacity and capabilities for a flood hazard event up to and including the Defined Flood Event.</p>	<p>No example provided.</p>
<p>PO15</p> <p>Development has access which, having regard to the hydraulic hazard, provides for safe vehicular and pedestrian movement and emergency services access.</p>	<p>No example provided.</p>
<p>PO16</p> <p>Development ensures that a use which requires an interface with the public realm, including a commercial and residential use, maintains a functional and attractive relationship with the adjacent street frontage.</p> <p>Note - This is particularly relevant for commercial uses in centres with a strong 'town-centre' pedestrian realm that also may be affected by flood, or for residential uses to maintain an attractive presentation to the street.</p>	<p>E16.1</p> <p>Development for a residential dwelling where pier and pole construction is utilised:</p> <ol style="list-style-type: none"> uses screening around the understorey of the dwelling that is a minimum of 50% permeable to ensure the understorey is not visible from the street; allows for the flow of flood water through the understorey.
	<p>E16.2</p> <p>Development for a commercial building or structure maintains an active street frontage through:</p> <ol style="list-style-type: none"> providing clear pedestrian access from any adjacent footpath to the floor level of the commercial activity; providing a retail or food and beverage use, if consistent with the overall outcomes of the applicable zone and precinct, which interfaces with and overlooks the street; urban design treatments which screen the understorey of the building from view from the adjacent street frontage but do not impede flood flow.

Reconfiguring a lot (boundary realignment)	
<p>PO17</p> <p>Development is designed to:</p> <ul style="list-style-type: none"> a. ensure personal safety at all times; b. not increase the potential for erosion, scour or flood damage either on the premises or other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain; c. not increase the risk to people, property and infrastructure located on the premises and other premises and where applicable the risk for future occupants is mitigated. 	<p>E17.1</p> <p>Development ensures that the development footprint is located in an area other than a High risk area.</p>
	<p>E17.2</p> <p>Development ensures that the entry points into the development are located to provide a safe and clear evacuation route path.</p>
	<p><i>If in the Drainage investigation area</i></p>
	<p>E17.3</p> <p>Development occurs in accordance with a drainage master plan for the Drainage investigation area.</p>
Reconfiguring a lot (other than boundary realignment)	
<p>PO18</p> <p>Development is compatible with the intolerable or tolerable level of risk of the flood hazard applicable to the premises such that reconfiguring a lot for creating lots by subdividing another lot:</p> <ul style="list-style-type: none"> a. in the High risk area, is only for the purposes of a Park or Permanent plantation unless: <ul style="list-style-type: none"> i. in the Rural residential zone where; the minimum lot size for each rural residential lot is provided outside the High risk area; or ii. in the Rural zone where a development footprint (flood and coastal) is provided outside the High risk area; or b. in the Medium risk area, is only for the purposes of a Park or Permanent plantation unless: <ul style="list-style-type: none"> i. in the Centre zone, Industry zone, Recreation and open space zone, or Township zone, where not for a residential purpose or vulnerable use (flood and coastal); or ii. in the Rural zone where a development footprint (flood and coastal) is provided outside the Medium risk area; or iii. in the Rural residential zone, where the minimum lot size development footprint (flood and coastal) for each rural residential lot is provided outside the Medium risk area; or in any other zone, where all resultant lots are 	<p>No example provided.</p>

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<p>located outside the High risk or Medium risk area other than those for the purposes of Park or Permanent plantation; or</p> <p>c. In the Balance flood planning area, is consistent with the overall outcomes of the applicable zone and precinct.</p> <p>Note - The overall outcomes of this code identify the development outcomes which are intended so as to avoid or mitigate the intolerable or tolerable level of risk applicable to premises in the High risk area, Medium risk area and Low risk area of the Flood planning area.</p>	
<p>PO19</p> <p>Development is designed to ensure personal safety at all times such that:</p> <p>a. flood immunity up to the Flood planning level is achieved;</p> <p>b. the road layout avoids isolation in a flood hazard event and does not impede evacuation;</p> <p>c. signage is utilised to ensure that community members have a clear understanding of the nature of the flood risk in the area.</p>	<p><i>If the ground level is to be filled to the Flood planning level as permitted by Table 8.2.2.4 'Fill Requirements'</i></p>
	<p>E19.1</p> <p>Development ensures that the finished ground level for all additional lots (excluding a Park⁽⁵⁷⁾) complies with the requirements of Table 8.2.2.4 'Fill Requirements'.</p>
	<p>E19.2</p> <p>Development ensures that the road and pathway layout:</p> <p>a. ensures residents are not physically isolated from an adjacent flood-free urban area;</p> <p>b. provides a safe and clear evacuation route path by:</p> <ol style="list-style-type: none"> locating entry points into the development above the requirements set out in Appendix C of the Planning scheme policy - Integrated design and avoiding cul-de-sac or other non-permeable layouts; direct and simple routes to a main carriageway. <p>Note - 'Pathway' in this instance relates to pedestrian and non-pedestrian routes internal to a development site that are not specifically roads — for example, pedestrian pathways within a hotel⁽³⁷⁾ development or internal roads in a large townhouse development.</p> <p>Note - It is important to ensure that new reconfigurations are not isolated from other urban areas in the event of a flood.</p>
	<p>E19.3</p>

	<p>Development in a greenfield area protects a flood conveyance area by providing an easement or reserve over the area of the premises up to the Defined Flood Event (including freeboard) in accordance with Planning scheme policy - Integrated design.</p> <p>E19.4</p> <p>Development ensures that a new road and development access are provided in accordance with the requirements set out in Appendix C of the Planning scheme policy - Integrated design.</p> <p>E19.5</p> <p>Development ensures that:</p> <ol style="list-style-type: none"> signage is provided on a road or pathway indicating the position and path of all safe evacuation routes off the premises; if the premises contains or is within 100m of a waterway, hazard warning signage and depth indicators are provided at each key hazard point, such as at a waterway crossing or an entrance to a low-lying reserve. <p>Note – 'Pathway' in this instance relates to pedestrian and non-pedestrian routes internal to a development site that are not specifically roads – for example, pedestrian pathways within a hotel⁽³⁷⁾ development or internal roads in a large townhouse development.</p> <p><i>If the ground level is to be filled other than as permitted by Table 8.2.2.4 'Fill Requirements'</i></p> <p>No example provided.</p>
<p>PO20</p> <p>Development ensures that infrastructure (excluding a road and stormwater drainage infrastructure):</p> <ol style="list-style-type: none"> is located outside of the High risk flood hazard area and Medium risk flood hazard area; or is otherwise located in the High risk flood hazard area or Medium risk flood hazard area to function during and after all flood hazard events up to and including the Defined Flood Event. <p>Note - A severe storm impact statement prepared in accordance with Appendix C of Planning Scheme Policy - Integrated Design may be required for infrastructure constructed in the High and Medium risk area.</p>	<p><i>If in the Balance flood planning area</i></p> <p>E20</p> <p>Development ensures that:</p> <ol style="list-style-type: none"> any component of infrastructure which is likely to fail to function or may result in contamination when inundated by flood is located above the Flood planning level; or infrastructure is designed, located and constructed to resist the hydrostatic and hydrodynamic forces as a result of inundation by the Defined Flood Event. <p><i>If in the High risk area or Medium risk area</i></p> <p>No example provided.</p>

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<p>PO21</p> <p>Reconfiguring a lot does not result in:</p> <ol style="list-style-type: none"> directly, indirectly and cumulatively cause any increase in water flow velocity or level; increase the potential for erosion, scour or flood damage either on the premises or other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain; change the timing of the flood wave or impact on flood warning times adverse impacts on the local drainage and the flood conveyance of a waterway; increased flood inundation of surrounding properties; any reduction in the flood storage capacity of the floodplain and any clearing of native vegetation. <p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	<p><i>If in the Balance flood planning area</i></p> <p>E21</p> <p>All earthworks are undertaken outside of the Defined Flood Event, or where required to regularise allotment shape, earthworks are undertaken in accordance with Planning scheme policy – Flood hazard, Coastal hazard and Overland flow.</p> <p><i>If in the High risk area or Medium risk area</i></p> <p>No example provided.</p>
<p>Additional criteria for works whether or not associated with a material change of use, building work or reconfiguring a lot</p>	
<p>PO22</p> <p>Development ensures that works complies with the requirements of Table 8.2.2.4 'Fill Requirements' and does not:</p> <ol style="list-style-type: none"> directly, indirectly and cumulatively cause any increase in water flow velocity or level; increase the potential for erosion, scour or flood damage either on the premises or other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain; change the timing of the flood wave or impact on flood warning times; adverse impacts on the local drainage and the flood conveyance of a waterway; increased flood inundation of surrounding properties; any reduction in the flood storage capacity of the floodplain and any clearing of native vegetation. <p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in the Planning scheme policy Flood Hazard, Coastal Hazard and Overland Flow.</p>	<p>No example provided.</p>

Additional criteria for development involving hazardous chemicals	
PO23 Development ensures that hazardous chemicals are not located or stored in the High risk flood hazard area.	No example provided.
PO24 Development not in the High risk area ensures that public safety and risk to the environment are not adversely affected by a detrimental impact of floodwaters up to the Defined Flood Event on a hazardous chemical located or stored on the premises.	E24 Development ensures that a hazardous chemical is located or stored at least above the flood planning level in Table 8.2.2.3 'Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals'. Note - Refer to the <i>Work Health and Safety Act 2011</i> and associated Regulation and Guidelines, the <i>Environmental Protection Act 1994</i> and the relevant building assessment provisions under the <i>Building Act 1975</i> for requirements related to the manufacture and storage of hazardous substances.
Additional criteria for development for community infrastructure	
PO25 Development for community infrastructure is not located in the High risk flood hazard area or Medium risk flood hazard area.	No example provided.
PO26 Development for community infrastructure not located in the High risk area or Medium risk area: <ul style="list-style-type: none"> a. remains functional to serve community needs during and immediately after the Defined Flood Event; b. is designed, sited and operated to avoid adverse impacts on the community or the environment due to the impacts of flood inundation on infrastructure, facilities or access and egress routes; c. retains essential site access during the Defined Flood Event; d. is able to remain functional even when other infrastructure or services may be compromised in the Defined Flood Event. 	No example provided.
Additional criteria for development of premises subject to a drainage master plan	
PO27 Development of premises included in the General residential zone – Next generation neighbourhood precinct or General residential zone – Urban neighbourhood precinct located in a Drainage	<i>If the Council has an adopted drainage master plan for the Drainage master plan area</i>
	E27.1 Development:

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<p>investigation area identified on Figures 8.2.2.1 to 8.2.2.10 is supported by drainage works and specific building design responses to mitigate the risk posed by the flood hazard.</p> <p>Note - Planning scheme policy - Flood hazard, Coastal hazard and Overland flow provides direction on the preparation of a drainage master plan, or similar, for the Drainage Investigation Area.</p>	<div data-bbox="810 197 1471 488"> <ul style="list-style-type: none"> a. undertakes identified works, internal and external, or transfers land as required to mitigate the impact of the flood hazard and any coastal hazard; b. is designed to mitigate the impact of the flood hazard and any coastal hazard in accordance with the design standards identified in the drainage master plan in the Planning scheme policy - Flood hazard, Coastal hazard and Overland flow. </div> <div data-bbox="810 539 1471 607"> <p><i>If the Council does not have an adopted drainage master plan for the Drainage investigation area</i></p> </div> <div data-bbox="810 629 1471 1317"> <p>E27.2</p> <p>Development:</p> <ul style="list-style-type: none"> a. occurs in accordance with a drainage master plan prepared by an applicant and approved by the Council; b. undertakes identified works, internal and external, or transfers land as required to mitigate the impact of the flood hazard and any coastal hazard; c. is designed to mitigate the impact of the flood hazard and any coastal hazard in accordance with the design standards identified in the approved drainage master plan. <p>Note - Planning scheme policy - Flood hazard, Coastal hazard and Overland flow provides direction on the preparation of a drainage master plan.</p> </div>
<p>PO28</p> <p>Development of premises included in General residential zone – Next generation neighbourhood precinct or General residential zone – Urban neighbourhood precinct located in a Drainage investigation area identified on Figures 8.2.2.1 to 8.2.2.10 must ensure that the land is filled:</p> <ul style="list-style-type: none"> a. where there is an adopted drainage master plan, in accordance with the levels in the drainage master plan; b. where there is no adopted drainage master plan, in accordance with the fill requirements in Table 8.2.2.4 'Fill Requirements' or such that the filling of the land does not: 	<p>E28</p> <p>No example provided.</p>

<ul style="list-style-type: none"> i. directly, indirectly and cumulatively cause any increase in water flow velocity or level; ii. increase the potential for erosion, scour or flood damage either on the premises or other premises, public land, watercourses, roads or infrastructure or elsewhere in the floodplain. <p>Note - To demonstrate achievement of the performance outcome, an engineering report is to be prepared by a suitably qualified person. Guidance on the matters to be addressed in the report is provided in Planning scheme policy - Flood hazard, Coastal hazard and Overland flow.</p>	
Additional criteria for development for a Park⁽⁵⁷⁾	
<p>PO29</p> <p>Development for a Park⁽⁵⁷⁾ ensures that the design and layout responds to the nature of the flood hazard affecting the premises in order to:</p> <ul style="list-style-type: none"> a. maximise public benefit and enjoyment; b. minimise impacts on the asset life and integrity of park⁽⁵⁷⁾ structures; c. minimise maintenance and replacement costs. 	<p>E29</p> <p>Development for a Park⁽⁵⁷⁾ ensures works are provided in accordance with the requirements set out in Appendix B of Planning scheme policy - Integrated design.</p>
Additional criteria for material change of use for Permanent plantation⁽⁵⁹⁾ or Cropping⁽¹⁹⁾ (where involving forestry for wood production)	
<p>PO30</p> <p>Development:</p> <ul style="list-style-type: none"> a. adopts management practices to minimise release of woody debris load into floodwaters during flood events up to the Defined Flood Event; b. complies with other relevant environmental setbacks and requirements. 	<p>No example provided.</p>

Table 8.2.2.3 Flood planning level for a habitable floor (residential development) and a non-habitable floor (non-residential development) and levels for hazardous chemicals

Flood planning area	Defined freeboard	Flood planning level
Flood planning area (east of the Bruce Highway and inside the Erosion Prone Area in the Coastal hazard overlay)	500mm	Defined Flood Event + 500mm
Flood planning area (east of the Bruce Highway and outside the Erosion Prone Area in the Coastal hazard overlay)	300mm	Defined Flood Event + 300mm

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Flood planning area	Defined freeboard	Flood planning level
Flood planning area (west of the Bruce Highway)	750mm	Defined Flood Event + 750mm

Note - If the premise is subject to another overlay which states a flood planning level, the flood planning level that provides the highest level of immunity applies.

Table 8.2.2.4 Fill Requirements

Flood planning area	Fill level
Land in the High risk area included in the Limited development zone.	No filling permitted.
Land in the High risk area not included in the Limited development zone.	No filling permitted. Note - filling is only permitted where for the creation of stormwater infrastructure such as detention basins, bioretention and levees.
Land in the Medium risk area and not located in a Drainage investigation area.	No filling permitted. Note -filling is only permitted where for the creation of stormwater infrastructure such as detention basins, bioretention and levees.
Land in the Medium risk area and in the Balance coastal planning area or Medium risk storm tide inundation area of the Coastal hazard overlay.	As per Table 8.2.1.4 'Fill requirements' of the Coastal hazard overlay code.
Land located in a Drainage investigation area identified on Figures 8.2.2.1 to 8.2.2.10.	Filling in accordance with the relevant adopted Drainage master plan.
Land in the Balance flood planning area.	Filling permitted as a minimum to the Flood planning level. Development Footprint as a minimum to the Defined Flood Event. Note - Earthworks required for the construction of a residential driveway do not need to meet the minimum Flood planning level.

Figure 8.2.2.1 - Albany Creek

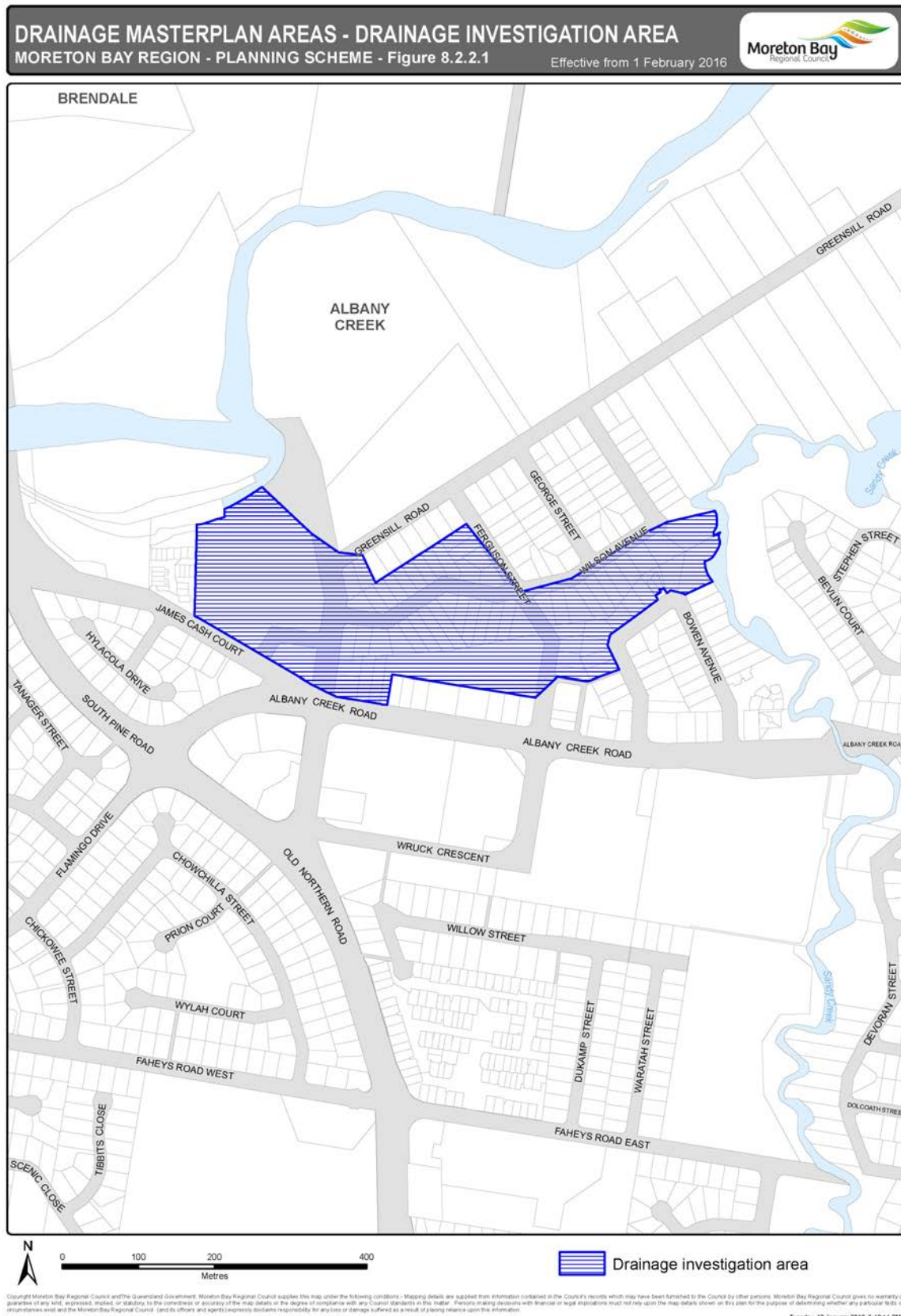


Figure 8.2.2.2 - Clontarf



THE NEW FIGURE BELOW IS PROPOSED AS PART OF THIS AMENDMENT

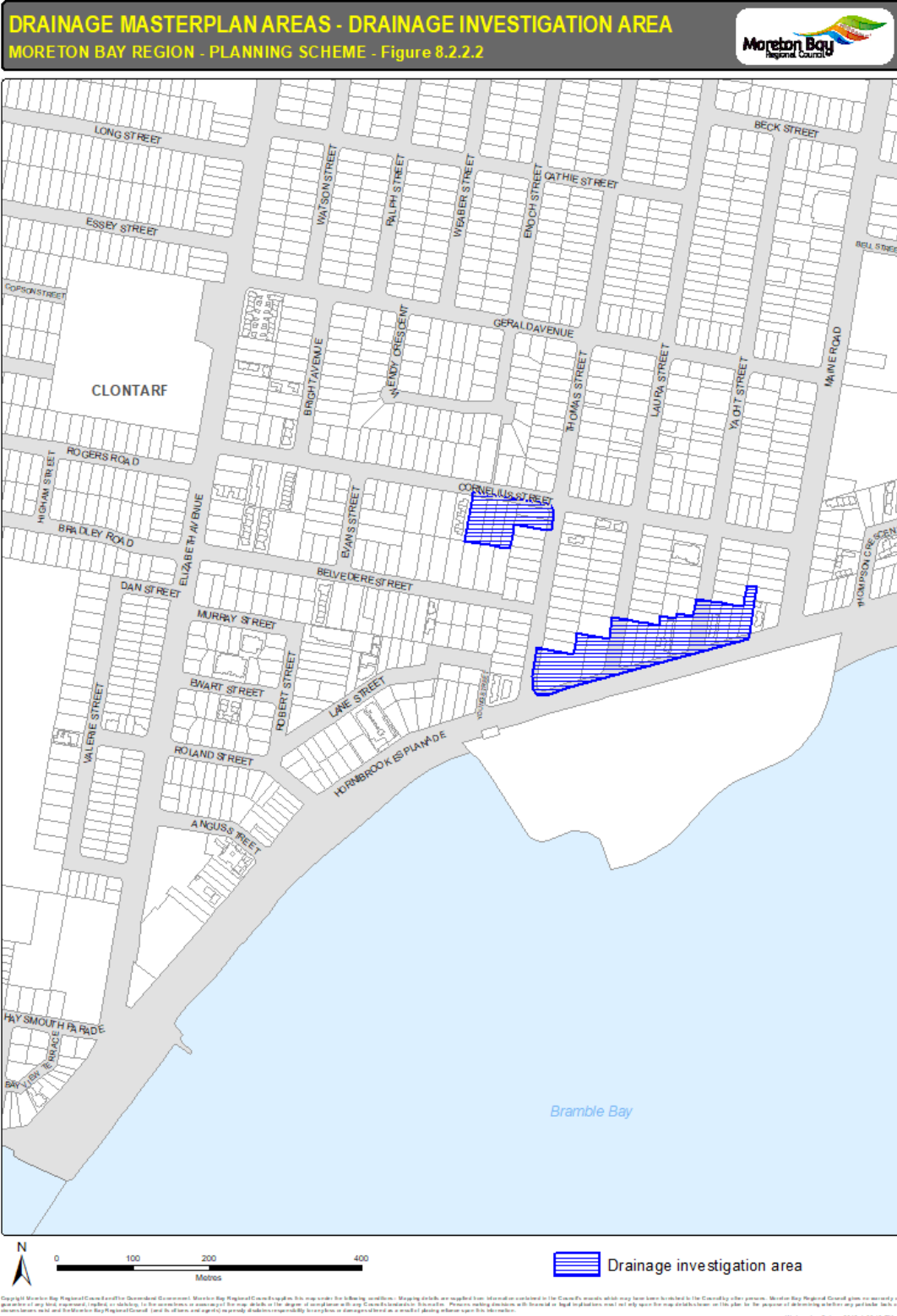


Figure 8.2.2.3 - Woody Point



THE NEW FIGURE BELOW IS PROPOSED AS PART OF THIS AMENDMENT

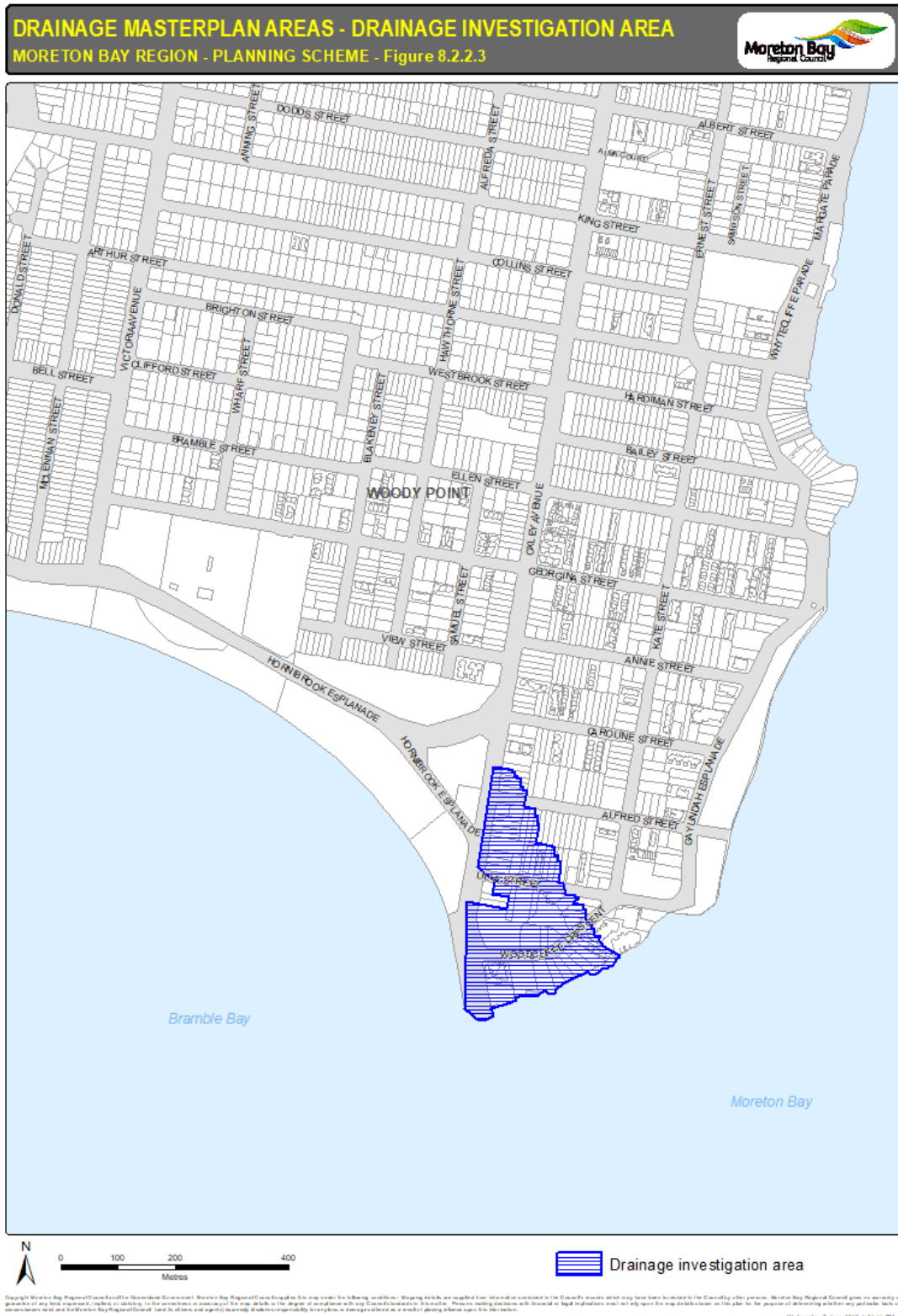


Figure 8.2.2.4 Margate



THE NEW FIGURE BELOW IS PROPOSED AS PART OF THIS AMENDMENT

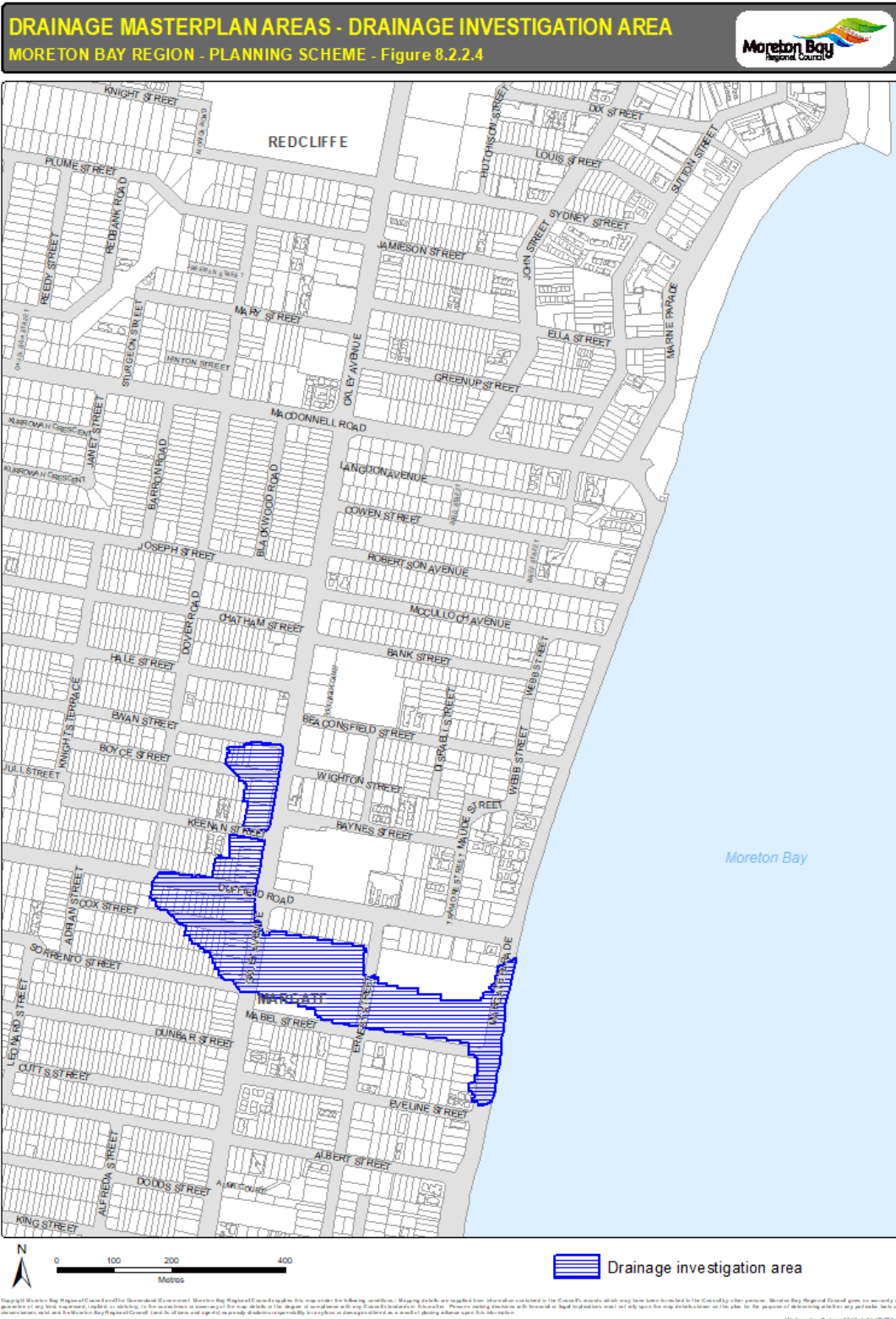


Figure 8.2.2.5 Redcliffe - Scarborough



THE NEW FIGURE BELOW IS PROPOSED AS PART OF THIS AMENDMENT

DRAINAGE MASTERPLAN AREAS - DRAINAGE INVESTIGATION AREA
MORETON BAY REGION - PLANNING SCHEME - Figure 8.2.2.5

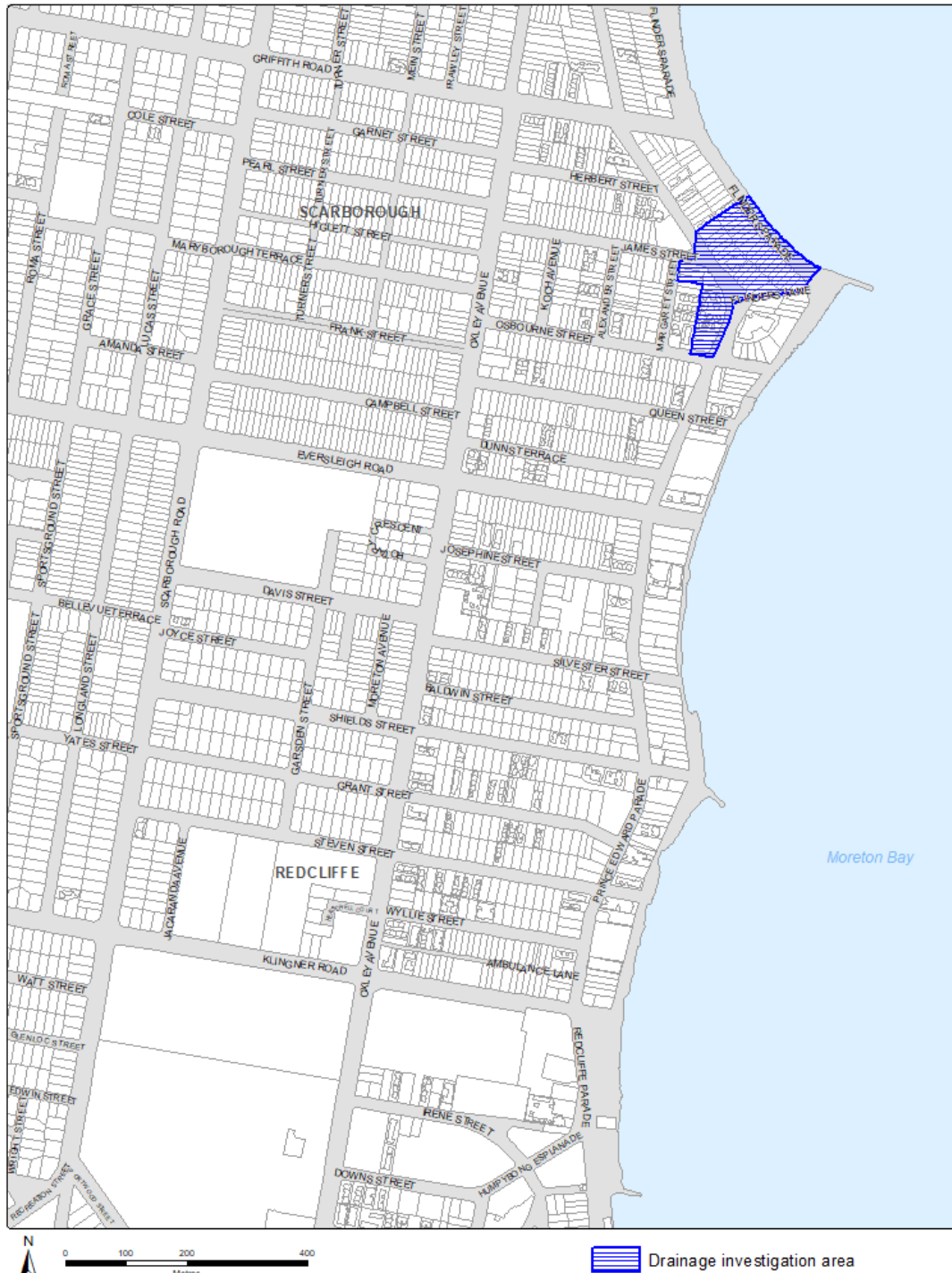
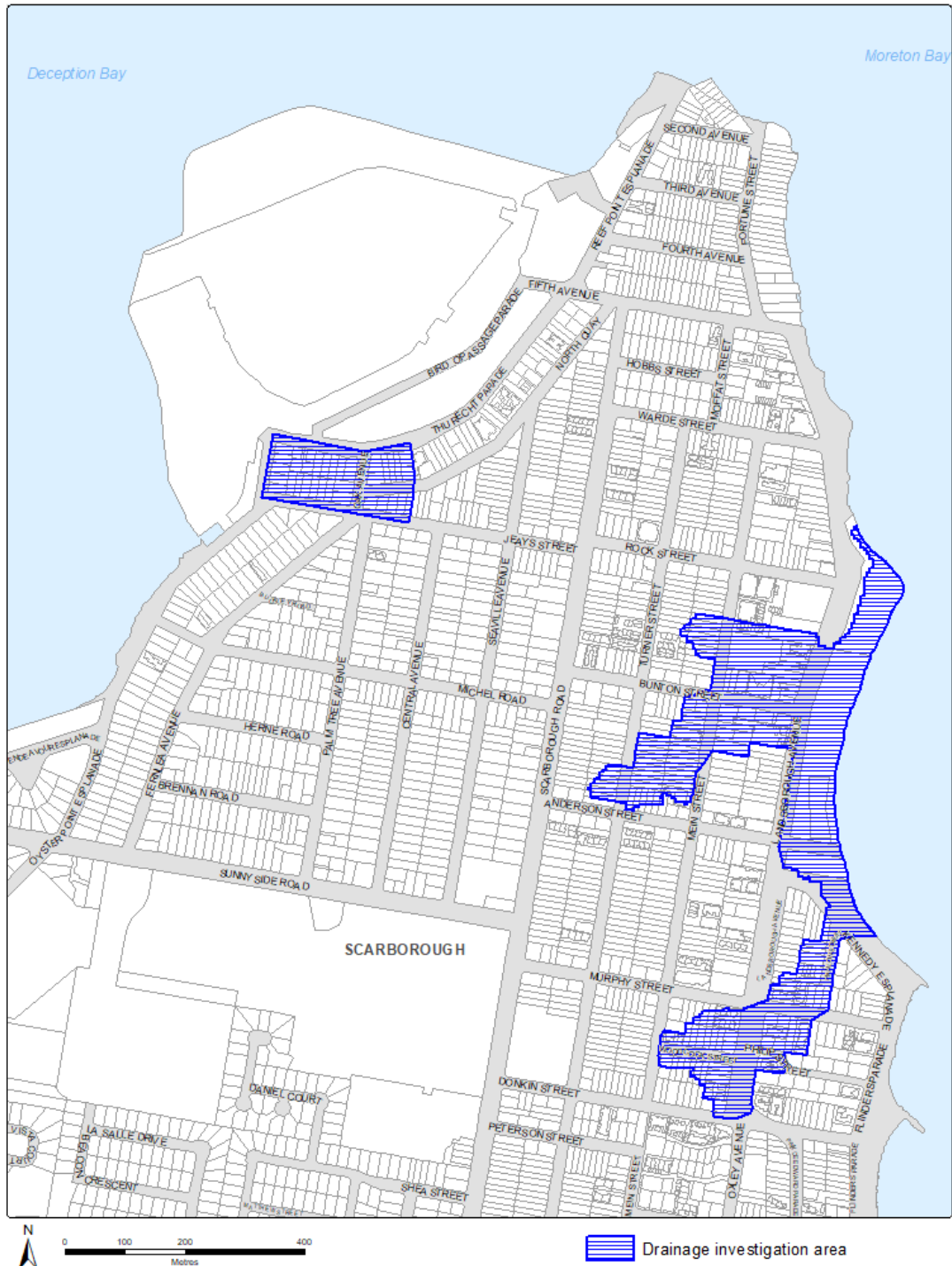


Figure 8.2.2.6 - Scarborough



THE NEW FIGURE BELOW IS PROPOSED AS PART OF THIS AMENDMENT

DRAINAGE MASTERPLAN AREAS - DRAINAGE INVESTIGATION AREA
MORETON BAY REGION - PLANNING SCHEME - Figure 8.2.2.6



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Figure 8.2.2.7 - Rothwell

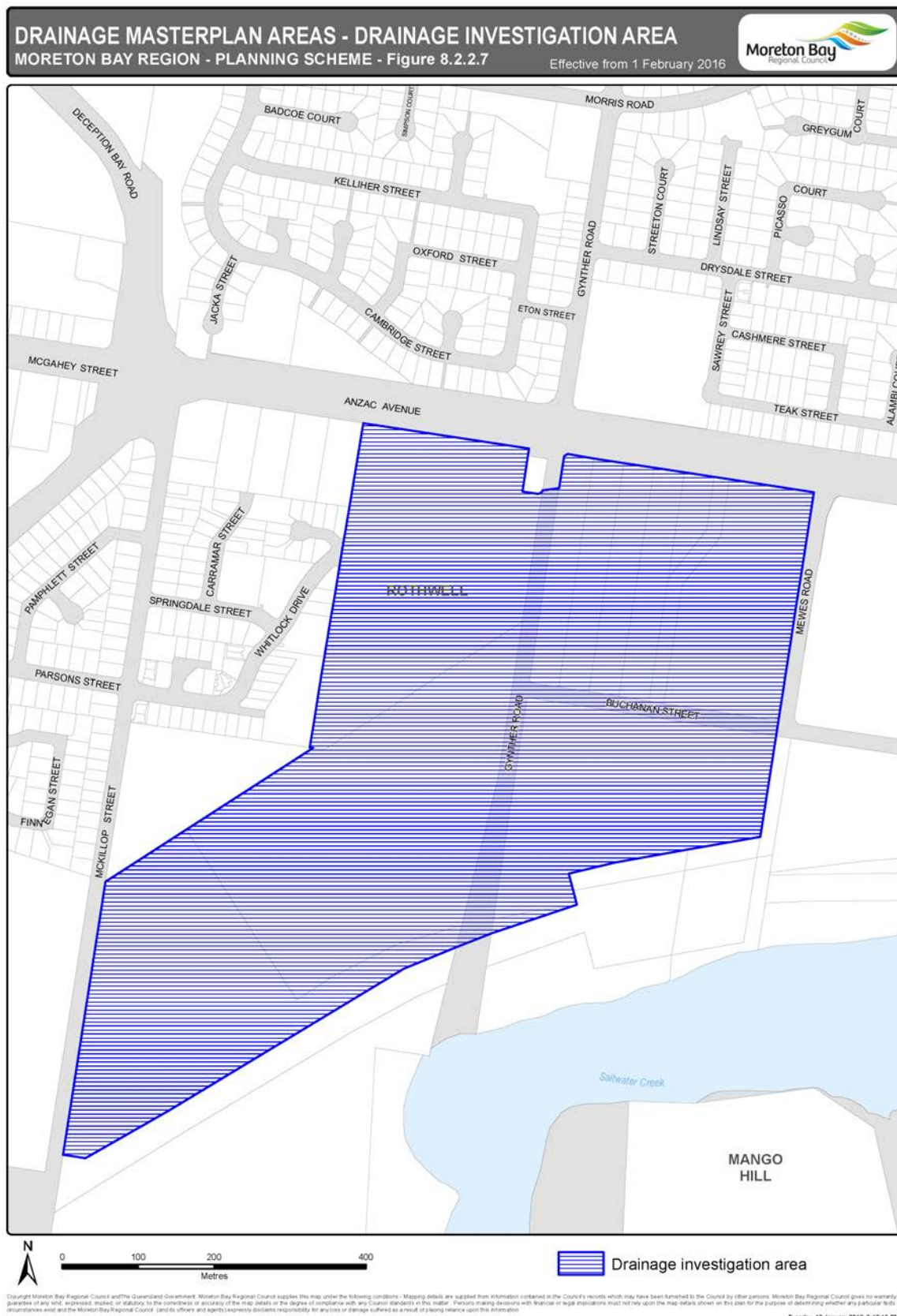


Figure 8.2.2.8 - Deception Bay



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THE NEW FIGURE BELOW IS PROPOSED AS PART OF THIS AMENDMENT

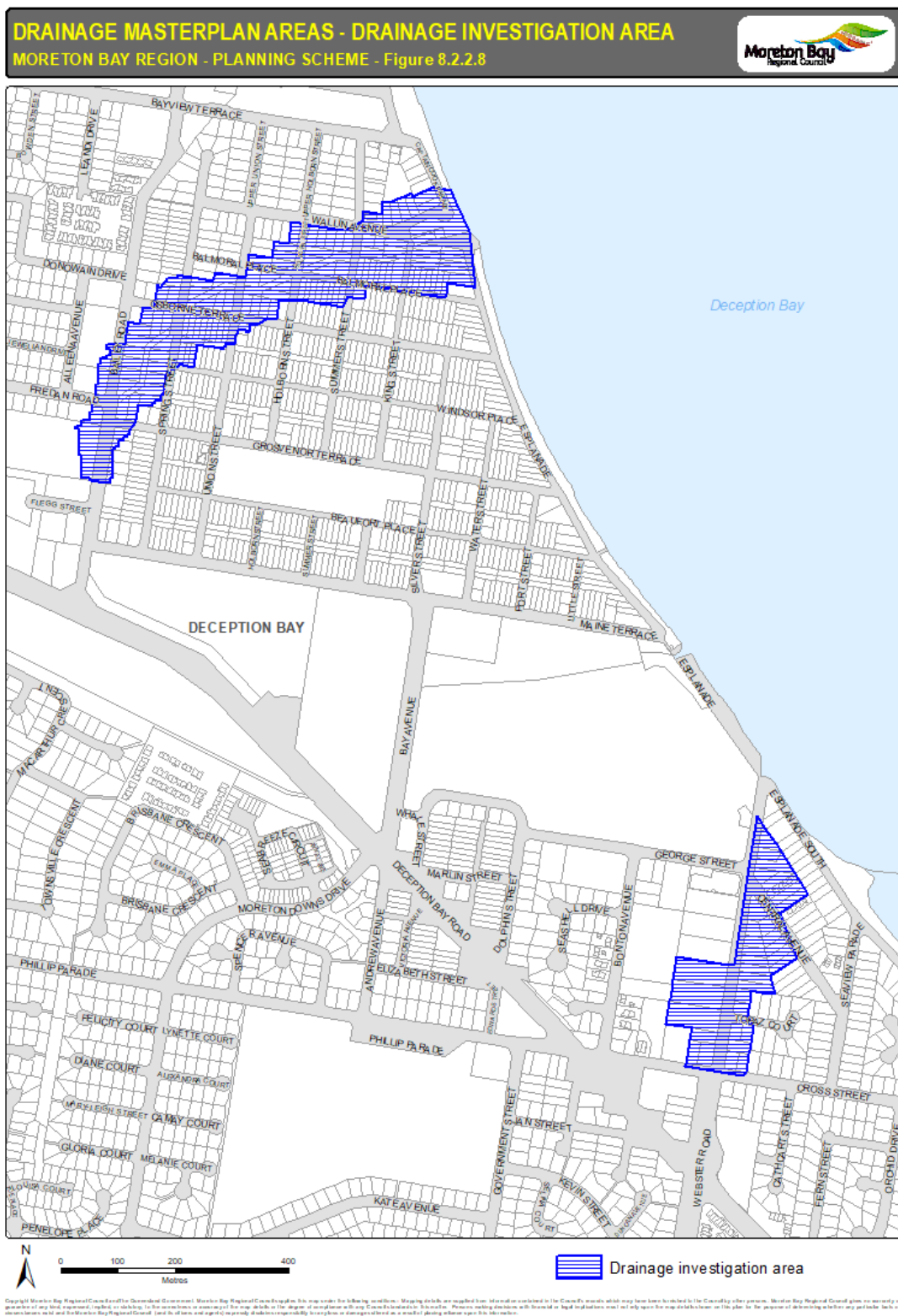


Figure 8.2.2.9 - Burpengary

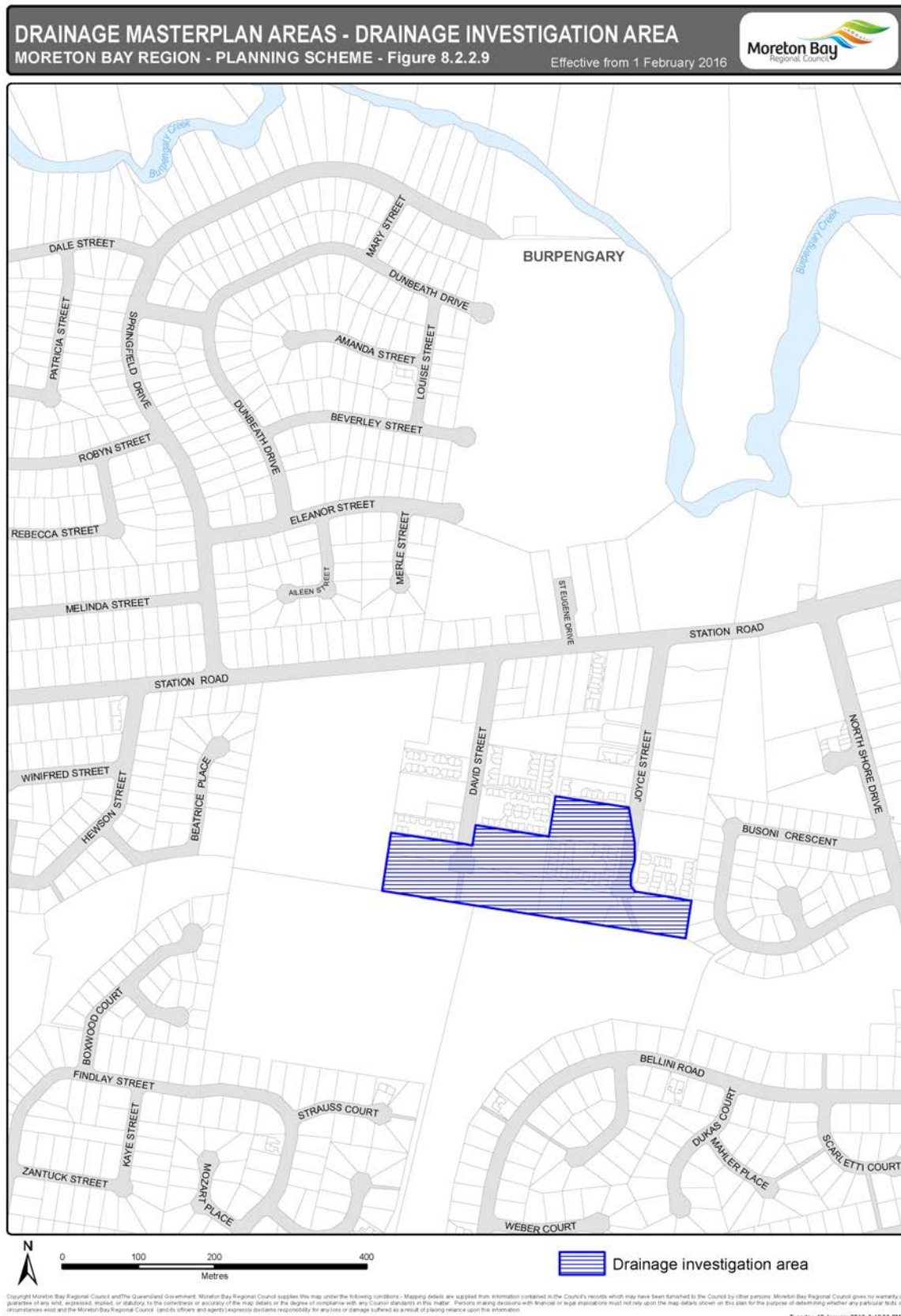
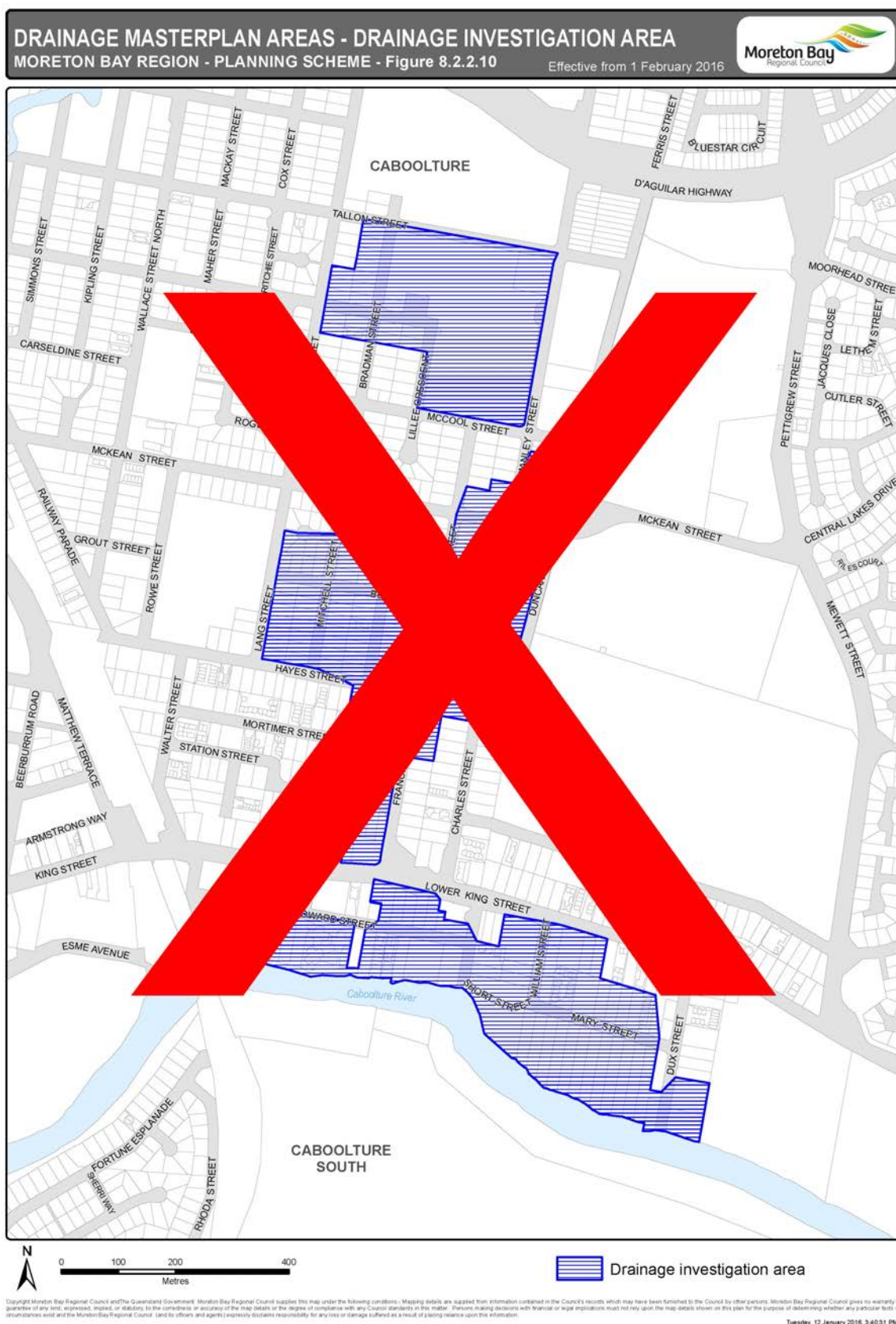


Figure 8.2.2.10 Caboolture



THE NEW FIGURE BELOW IS PROPOSED AS PART OF THIS AMENDMENT

