



CITY OF KARRATHA
TOWN PLANNING SCHEME NO. 8

AMENDMENT NO. 37

CITY OF KARRATHA
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MINISTER FOR PLANNING
PROPOSAL TO AMEND A TOWN PLANNING SCHEME

1. LOCAL AUTHORITY: CITY OF KARRATHA
2. DESCRIPTION OF SCHEME: TOWN PLANNING SCHEME NO. 8
3. SERIAL NO. OF AMENDMENT: AMENDMENT NO. 37
4. PROPOSAL:
 - a) To delete Clauses 7.5.1, 7.5.2 and 7.5.3 to remove reference to the Storm Surge Risk Special Control Area from the Scheme Text
 - b) To remove reference to the Storm Surge Special Control Area from the Scheme Maps
 - c) To insert a new Clause 6.17 which grants the Council discretionary powers to consider development proposals for residential, commercial or health, welfare and community categories in the zoning table within an area identified as being vulnerable to a 500 year ARI storm surge event.

PLANNING AND DEVELOPMENT ACT 2005
RESOLUTION DECIDING TO AMEND A TOWN PLANNING SCHEME

CITY OF KARRATHA
TOWN PLANNING SCHEME NO. 8
AMENDMENT NO. 37

RESOLVED that the Council in pursuance of Section 75 of the *Planning and Development Act 2005*, amend the above town planning scheme by:

1. Deleting clause 7.5.1, 7.5.2 and 7.5.3 and deleting all reference to the storm surge risk special control area throughout the scheme text;
2. Deleting reference to the storm surge risk special control area on the scheme maps;
3. Amending the first part of clause 4.1.3 to read as follows:

'4.1.3 Unless otherwise referred to in clause 4.1.4 or 4.1.5, the planning approval of Council is not required for the following development of land: ...'
4. Inserting a new clause 4.1.5 as follows:

'4.1.5 Where land is identified as being vulnerable to storm surge inundation pursuant to Clause 6.17, the following uses identified within Clause 4.1.3 will cease to be exempt from the requirement to obtain planning approval:

 - (a) The development of land in a reserve, where such land is held by the Council or a public authority, and where the proposed development is for the purpose for which the land:*
 - (i) is reserved under the Scheme; or*
 - (ii) may be lawfully developed by the Council or public authority.*
 - (b) The erection on a lot of a single house, including any associated outbuilding(s) and/or ancillary dwellings;*
 - (c) A family day care centre.'*
5. Inserting a new clause 6.17 as follows:

'6.17 STORM SURGE RISK

 - 6.17.1 The local government is to maintain a local planning policy on storm surge risk which will contain mapping that identifies land within the District that is vulnerable to storm surge inundation.*
 - 6.17.2 All land that is identified within this local planning policy as being vulnerable to storm surge inundation shall be subject to the requirements of the local planning policy.'*

Dated this day of 2014

CHIEF EXECUTIVE OFFICER

REPORT ON AMENDMENT NO. 37
CITY OF KARRATHA
TOWN PLANNING SCHEME NO. 8

1. INTRODUCTION

The City of Karratha Town Planning Scheme No. 8 (TPS8) was gazetted on 22 August 2000.

This proposed amendment to TPS8 seeks to delete the storm surge risk special control area, including Clause 7.5 and any reference to the storm surge risk special control area on the scheme maps, in favour of a new general development clause regarding storm surge risk (Clause 6.17), which will establish the following requirements:

1. require the local government to maintain a local planning policy on storm surge risk, which will contain a schedule of maps that delineate the extent of land vulnerable to storm surge inundation within the district;
2. require all development applications for land identified as being vulnerable to storm surge inundation to be assessed in accordance with the requirements of the local planning policy; and
3. amend the list of development that is exempt from the requirement to obtain planning approval to require planning approval for development on land vulnerable to storm surge inundation that is otherwise exempt (ie. single dwellings, outbuildings, ancillary dwellings and family day care centres).

The above amendments will bring TPS8 into line with the State Planning Policy 2.6 – State Coastal Planning Policy (SPP 2.6) and associated guidelines, as follows:

1. consideration be given to a 500 year storm surge event, within a 100 year planning timeframe as opposed to a 100 year storm surge event currently as required by Clause 7.5;
2. flexibility to maintain mapping of storm surge inundation within a local planning policy that incorporates the most current data and policy requirements as opposed to the current storm surge risk special control area which is a fixed area on the scheme maps that does not directly correspond to the 500 year ARI storm surge event;
3. application of a risk assessment and risk mitigation approach to the assessment of planning applications in line with the requirements of SPP2.6.

In summary, this Scheme Amendment seeks to bring the Council's Scheme into alignment with SPP2.6 and associated guidelines and in doing so, grants Council the discretion to consider development proposals for sensitive land uses in areas identified as being susceptible to a 500 year ARI storm surge event in a much more qualified and transparent way via a specific local planning policy, with strong technical foundations.

2. BACKGROUND

Assessment of applications for residential, commerce or health, welfare and community categories in the Storm Surge Risk Special Control Area

The City of Karratha TPS8 Scheme Maps identify a "Storm Surge Risk Special Control Area" [SSR-SCA] covering an area that extends to the seaward side of the North West Coastal Highway. Currently, planning applications within this Storm Surge Risk Special Control Area are subject to the requirements set out in Clause 7.5 of TPS8.

Clause 7.5 seeks to ensure that adequate provision is made for the protection of sensitive land uses within the Special Control Area from storm surge inundation; in particular, for Residential, Commercial, Health, Welfare and Community categories as defined in the TPS8 zoning table.

Clause 7.5 of TPS8 currently reads as follows:

"7.5.1 When considering applications for planning approval, Council staff shall have regard to information about the land prone to 1 in 100 year storm surge events and may permit, with or without conditions, or refuse proposals at its discretion.

7.5.2 When considering applications for planning approval, Council shall consult the relevant agencies regarding the most up-to-date information available about potential storm surge events and sea level rise which may affect the proposals subject to application.

7.5.3 Development within the Residential, Commerce or Health, Welfare and Community categories in the zoning table is not permitted within an area known to be subject to 1 in 100 year storm surge events. Council may approve other development categories subject to considering:

- (a) the sensitivity of the proposal to risk;*
- (b) protection measures to be constructed; and*
- (c) social and cultural values."*

Clause 7.5.3 currently precludes development within the Residential, Commerce or Health, Welfare and Community categories from being permitted within an area known to be subject to 1 in 100 year storm surge events.

This exclusion is not in accordance with the current approach to storm surge prescribed by SPP2.6 and associated guidelines, which favours a hierarchal risk management approach to determine if the development of land vulnerable to storm surge risk should be avoided, managed or protected from coastal processes.

Background to the City of Karratha Town Planning Scheme No. 8 and the Storm Surge Risk Special Control Area

The Planning Report that accompanies the 2001 City of Karratha TPS8 was prepared by Landvision in 2000. While this report is available, the 'working papers' supporting it are not. It appears that the City of Karratha Storm Surge Risk Special Control Area was carried forward from preceding district schemes, combined with the Karratha Area Development Strategy (WAPC, 1998).

The Karratha Area Development Strategy [KADS] sets out the starting point for the Kelly Line, which was pretty simply defined in the 1960s and 1970s, by a number of more or less scientific studies undertaken by the Public Works Department and several University studies. The latter include Noye (1972); Trajer (1973), Nelson (1975); Hopley & Harvey (1976) and Silvester & Mitchell (1977).

The Kelly Line is a guideline minimum level for town planning developed in the early 1970's for Karratha and Port Hedland, defined as 10' (3.05 m) Height Above Terrain (HAT) (JDA et al. 2011 Draft). At Karratha HAT is 2.5 m AHD, so the Kelly Line is at 5.55 m AHD.

The Kelly Line in Karratha was re-assessed in 1982/83 using modelling in Stark, K.P. and McMonagle, C.J. (1982) Karratha Storm Surge plus Tide Levels prepared by James Cook University for the WA Department of Resources Development.

'Revision' of inundation levels for KADS was undertaken fairly systematically through a series of studies by the Bureau of Meteorology Special Services Unit. These were built around a model (and associated methodology) which is described in Hubbert, G.D., Leslie, L.M., and Manton, M.J. (1990) 'A storm surge model for the Australian region' Quarterly Journal of the Royal Meteorological Society, 116, 1005-1020. The two main players involved in this work (Graeme Hubbert, Steve Oliver) left and formed Global Environmental Modelling Systems (GEMS).

Some of the studies included:

- Bureau of Meteorology Special Services Unit (1996) Karratha Storm Surge Inundation Study. WA Tropical Cyclone Industrial Liaison Committee. [at Department of Transport]

- Bureau of Meteorology Special Services Unit and Global Environmental Modelling Services. (1995) Cape Lambert Storm Surge Inundation Study Australian Government Printing Service, Canberra
- Bureau of Meteorology and GEMS (1998) Cape Lambert Storm Surge Study
- Bureau of Meteorology Special Services Unit & Global Environmental Modelling Systems

In between 2000 and 2010, there were a number of private industry requests for coastal modellers to produce local scale storm inundation studies; particularly for Cape Lambert and Cape Preston. These studies included:

- Global Environmental Modelling Systems: GEMS. (2004) Cape Lambert Wave-Storm Surge Study, GEMS Report 31/04.
- Global Environmental Modelling Systems: GEMS. (2008) Cape Preston Coastal Stability Study. Final Report.
- Global Environmental Modelling Systems: GEMS. (2008) Cape Lambert Port B. Cyclonic Design Study.
- Global Environmental Modelling Systems: GEMS & JFA Consultants. (2010) Cape Lambert Port B Wave Study. For SKM and Rio Tinto Iron Ore.
- Metocean Engineers. (2004) Cyclonic and Non-Cyclonic Ocean Waves and Surge Design Criteria for Dampier Bulk Liquids Berth. For Dampier Port Authority. Report R1200.
- Global Environmental Modelling Systems: GEMS. (2009) West Pilbara Cyclonic Surge Inundation Study. Study No G06/0506 prepared for the City of Karratha.

Recent research on coastal vulnerability in Karratha

In 2011, JDA Consultant hydrologists in association with GEMS were commissioned by LandCorp to undertake the Karratha Coastal Vulnerability Study. The draft Karratha Coastal Vulnerability Study, with an associated report, was completed in November 2011 and provided to Council in early 2012. The Karratha Coastal Vulnerability Study involved a study of the impacts of future climate change, calculation of hydrology around Karratha, assessment of the shoreline stability, modelling of flooding from storm surge and modelling of riverine flooding.

The study, which included the main Karratha townsite and the Light Industrial Area and extended southwards to incorporate the North West Coastal Highway, was undertaken to inform future land use planning.

The Storm Surge components of the Karratha Coastal Vulnerability Study aim to provide estimates of the storm surge water levels along the Karratha coastline. A suite of models was used to determine water levels for known cyclone events. From the Storm Surge and hydrological modelling, a set of maps were produced for 1:2, 1:10, 1:100, 1:200 and 1:500 year events for the 2010, 2060 and 2110 climate scenarios. The maps show flood extent depths and levels and account for storm surge and riverine flooding.

The Karratha Coastal Vulnerability Study is the first holistic assessment of coastal and riverine flooding in the Karratha Region. The Karratha Coastal Vulnerability Study provides the latest and best technical information for assessing planning applications and informs the preparation of Council policies and planning for coastal communities.

To facilitate localised assessments of applications for planning approval, the Department of Water now matches the Karratha Coastal Vulnerability Study modeling information with topographical information to provide individual property assessments as well as multiple property or suburb assessments of areas that may be subject to storm surge and overland flooding events.

Legal Advice

To guide consideration of applications for planning approval in the Storm Surge Risk Special Control Area, taking into account the information provided in the Karratha Coastal Vulnerability Study, the City received legal advice in relation to the interpretation of Clause 7.5.

This legal advice concludes that there is potential for conflict between clauses 7.5.1 and 7.5.3 and also confirms that clause 7.5.3 is the dominant clause, and therefore prohibits Council from approving development in the Storm Surge Risk Special Control Area within the Residential, Commerce or Health, Welfare and Community categories that are in an area that is known to be subject to a 100 year storm surge event.

Further legal advice was sought as to the required revisions to Clause 7.5 to provide Council with greater clarity and flexibility to administer Clause 7.5.

Amendment No. 27 to TPS8

Council at its meeting held 17 June 2013 resolved the following in relation to Amendment No. 27:

"a) *ADOPT Amendment 27 to the City of Karratha Town Planning Scheme No. 8 as follows:*

Delete clauses 7.5.1, 7.5.2 and 7.5.3, and substitute the following:	Proposed amendment
<i>7.5.1 When considering an application for planning approval for land in the Storm Surge Risk Special Control Area, the Council is to have regard to information about the land to ascertain whether or not it is prone to 100 year ARI storm surge events and subject to clause 7.5.3 is to determine any such application in accordance with the provisions of the Scheme.</i>	<i>Delete 100 year ARI and insert 500 year ARI.</i> <i>Add at the end of paragraph ...and shall be in accordance with the DP19 Storm Surge Risk Policy in the Policy Manual.</i>
<i>7.5.2 When considering an application for planning approval for land in the Storm Surge Risk Special Control Area, the Council is to consult the relevant agencies regarding the most up-to-date information available about potential storm surge events and sea level rise which has the potential to affect any proposal involved in the application.</i>	<i>No change</i>
<i>7.5.3 An application for planning approval on land prone to 100 year ARI storm surge events is not to be approved unless topographical, hydrological, engineering, design and project scale and lifespan information, and such other information as is relevant in the circumstances of the case, is submitted with the application, and in the opinion of the Council is sufficient to demonstrate that risk to the following is suitably avoided, remedied or mitigated: (a) Human life and health; (b) Property; (c) Utility and service infrastructure; and (d) Social, cultural and environmental values.</i> <i>The Council may refuse to accept or to consider an application where satisfactory information is not provided in accordance with this clause.</i>	<i>Delete 100 year ARI and insert 500 year ARI.</i>
<i>7.5.4 In any case dealt with by the Council under clause 7.5.3, the Council may require proof of the standard and reliability of any expert opinion, certification or data supplied in support of the application, and may further require: (a) That any expert opinion, certification or data be provided to the Council in a form and in circumstances which would</i>	<i>No change</i>

<p><i>enable the Council to rely directly on the professional liability of the expert;</i></p> <p><i>(b) That evidence be provided as to the amount of professional indemnity insurance cover held by the expert providing the opinion, certification or data in support of an application; and</i></p> <p><i>(c) That further advice or opinion be obtained at the expense of the applicant from an independent expert.</i></p>	
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- b) *AUTHORISE the Chief Executive Officer to make the amendments outlined above and REFER Amendment 27 and the submissions received together with the responses set out in this Agenda Item Report to the Western Australian Planning Commission for final approval of Amendment 27."*

Council proceeded to adopt Amendment No. 27 to TPS8 at its June 2013 Council meeting, which has put in place a seriously entertained Scheme Amendment and allowed development to be approved that would have otherwise been required to be refused in accordance with clause 7.5.3. Subsequent internal review and consultation with key stakeholders, such as the Department of Planning, however, has given rise to an alternative approach to address storm surge within TPS8 as outlined within this current scheme amendment document. This alternative approach involves setting out in a local planning policy the storm surge affected areas within the City and considerations in relation to development in that area. This is more flexible with regard to maintenance of storm surge mapping and adjustments to policy. As such, this approach is now the favoured approach. Accordingly, it is recommended that Scheme Amendment No. 27 be abandoned by the Minister in favour of this current scheme amendment.

DP19 Draft Storm Surge Risk Area Planning Policy

The principal tool for implementing the proposed new clauses within TPS8 is a new local planning policy on storm surge. The objectives of this draft policy are:

- a. To establish procedures for the identification of areas where land may be vulnerable to 500 year ARI Storm Surge events;
- b. To provide guidance for applicants in relation to the information required to support development applications for sites identified in the mapping maintained and administered by the City as being vulnerable to 500 year ARI Storm Surge events;
- c. To clarify the circumstances in which 500 year ARI Storm Surge information is required;
- d. To provide decision guidelines, assessment procedures and development standards for assessment of development proposals on land identified as being vulnerable to a 500 year ARI Storm Surge event;
- e. To ensure adequate provision is made for the management of risk for all land identified as being vulnerable to the 500 year ARI Storm Surge event.

Key components and requirements of the draft policy are summarised below:

1. Schedule 1 of the policy will contain the most current storm surge mapping within the District, which may be updated by the City from time to time as more current and accurate information is prepared. All land that is identified as being vulnerable to the 500 year ARI storm surge event will be subject to the requirements of the policy.
2. The policy incorporates 'as of right' mitigation measures which proponents may incorporate into development plans to sufficiently address the level of risk associated with storm surge inundation and in so doing, meet the minimum requirements of the policy. The 'as of right' design response includes raising the finished floor level of habitable rooms above the modelled 500 year ARI storm surge event level or locating the development on a portion of the site that is not vulnerable to storm surge inundation.
3. Alternatively, the policy provides a framework for applicants to take a performance approach to risk mitigation, where the proponent chooses to take an alternative approach to the 'as of right' design response and takes responsibility for consequences in the knowledge that finished floor levels are below the 500 year ARI storm surge level.

4. Outlines a clear process for assessment of applications for land vulnerable to storm surge.

The policy allows the City to apply a discretionary approach to the assessment of applications and ensures risk is appropriately addressed. In this regard, the draft policy has been prepared in the context of the City's draft Coastal Hazard Risk Management Adaptation Plan, which contains an overarching risk assessment of storm surge hazard within the City.

The City's draft Coastal Hazard Risk Management Adaptation Plan generally finds that risk associated with the modeled 500 year ARI storm surge hazard can generally be managed and mitigated through on-site development measures.

The draft policy is proposed to be advertised concurrently with this scheme amendment and is attached as Appendix A to this report for information.

City of Karratha draft Coastal Hazard Risk Management Adaptation Plan (CHRMAP)

The parameters for the establishment of a CHRMAP is set out in SPP 2.6. The purpose of a CHRMAP is to establish a hierarchical approach to the management of coastal hazards and risk. The hierarchy for this approach is established on a sequential basis as per the following, with the first being the preferred approach and the last being an option when all other approaches are not deemed appropriate or applicable:

- (1) **Avoid** new development being located within an area identified as being affected by coastal hazards.
- (2) **Planned or Managed Retreat** involving the relocation or removal of assets within an area identified as likely to be subject to intolerable risk from coastal hazards over the planning timeframe.
- (3) **Accommodate** or provide adaption measures to suitably address and mitigate the identified risks.
- (4) **Protect** areas of the coast where there is a need to preserve the foreshore reserve, public access and public safety, property and infrastructure that is not expendable.

The City is in the process of preparing a CHRMAP for the district which will apply the City's adopted risk assessment framework in the context of storm surge risk and risk relating to coastal physical processes.

The purpose of the City's CHRMAP will be to identify those areas at risk from storm surge and to guide decision makers, landowners and applicants on how to appropriately identify, manage and mitigate storm surge risk associated with any new development within the City.

The CHRMAP will provide relevant contextual information and support the City's planning policy framework on storm surge.

3. RELEVANT STATE PLANNING POLICIES

State Planning Policy 2.6 – State Coastal Planning Policy

The State Planning Policy 2.6 – State Coastal Planning Policy (SPP 2.6) has been prepared to guide decision making and policy in relation to the State's coast. Amongst other matters, the Policy seeks to ensure coastal hazard risk management and adaption is appropriately planned for in proximity to the coast.

SPP 2.6 has recently been reviewed with a key outcome of the review being the need to consider not just coastal processes within a 100 year timeframe, but also ocean forces and storm events that have a 0.2 percent or 1 in 500 probability of being equalled or exceeded in any given year over the planning time frame.

The draft State Coastal Planning Policy guidelines have also been introduced to support draft SPP 2.6. These guidelines identify a range of ongoing risk management and adaption planning measures that may be considered in the assessment of development proposals located within an area known to be subject to storm surge risk.

Section 77 of the *Planning and Development Act 2005* requires that local governments when preparing or amending a local planning scheme, have due regard to relevant State policies and guidelines such as SPP2.6 and its associated guidelines and State Planning Policy 3.4 – Natural Hazards and Disasters.

State Coastal Planning Policy Guidelines

The draft State Coastal Planning Policy Guidelines support SPP 2.6 and identify a range of risk management and adaptation options that may be considered in coastal hazard risk management and adaptation planning.

The framework essentially establishes a process for risk assessment, as follows:

1. Establish the context;
2. Undertake a risk vulnerability assessment;
3. Determine the likelihood of the hazard occurring;
4. Determine the consequences;
5. Evaluate the risks;
6. Set in place adaption management measures; and
7. Undertake monitoring and review.

The guidelines establish a hierarchy of risk management and adaption strategies, as follows:

- **Avoid** a site known to be affected by coastal processes;
- **Planned or managed retreat** through restricting/limiting development within land affected by coastal processes;
- **Accommodate** development in a way that reduces consequences of coastal processes;
- **Protect** development from coastal processes.

This proposed Scheme amendment seeks to allow Council discretion to consider developments that incorporate mitigation measures in accordance with the 'avoid', 'accommodate' and 'protect' categories identified in the draft guidelines. This Scheme Amendment, through application of the draft DP19 local planning policy will primarily focus on a 'accommodate' strategy for all new infill development within the City. While Council's corporate risk management processes, in association with the FESA Pilbara West Office, will respond to the 'planned or managed retreat' option, a precautionary approach will be taken which requires certain development applications to set in place an emergency management plan in accordance with FESA guidelines.

State Planning Policy 3.4 Natural Hazards

SPP 3.4 was designed to ensure that land use planning appropriately considers the risk of natural hazards and disasters. It covers cyclonic activity and storm surge as well as a range of other natural hazards. With respect to storm surge, SPP 3.4 states:

Where storm surge studies have been undertaken and show that inundation may occur, new permanent buildings should be constructed to take account of the effects of storm surge (including wind and wave set up).

In areas where storm surge studies have not been undertaken, but evidence is available to demonstrate vulnerability to inundation, any development proposals should be supported by studies that demonstrate inundation will not occur.

This proposed Scheme Amendment takes into account the effects of storm surge events. The accompanying draft planning policy proposes that development applications be assessed against criteria, including those set out in both SPP 2.6 and SPP 3.4.

3. PROPOSAL

The interpretation and application of Clause 7.5 in TPS 8 has led to a situation where Council is unable to approve certain development applications within the SSR-SCA, where the land lies in a known 100 year ARI storm surge event inundation contour. This has led to considerable delays in processing a number of applications for development in existing residential areas and may compromise the development potential of other new urban development areas proposed in and around Karratha.

In response to this issue, City staff have consulted closely with the Department of Planning and other stakeholders to develop a new policy stance in line with the requirements of SPP2.6, which also takes into account the 500 year ARI storm surge event as opposed to the 100 year ARI storm surge event.

It is proposed to undertake the following modifications to TPS8 as a result:

1. Delete clause 7.5.1, 7.5.2 and 7.5.3;
2. Delete reference to the storm surge risk special control area on the scheme maps;
3. Amend the first part of clause 4.1.3 to read as follows:
'4.1.3 Unless otherwise referred to in clause 4.1.4 and 4.1.5 the planning approval of Council is not required for the following development of land:...'
4. Insert a new clause 4.1.5 as follows:
'4.1.5 Where land is identified as being vulnerable to storm surge inundation pursuant to Clause 6.17, the following uses identified within Clause 4.1.3 will cease to be exempt from the requirement to obtain planning approval:
 - (a) The development of land in a reserve, where such land is held by the Council or a public authority, and where the proposed development is for the purpose for which the land:*
 - (i) is reserved under the Scheme; or*
 - (ii) may be lawfully developed by the Council or public authority.*
 - (b) The erection on a lot of a single house, including any associated outbuilding(s) and/or ancillary dwellings;*
 - (c) A family day care centre.'*
5. Insert a new clause 6.17 as follows:
'6.17 STORM SURGE RISK
6.17.1 The local government is to maintain a local planning policy on storm surge risk which will contain mapping that identifies land within the District that is

vulnerable to storm surge inundation.

- 6.17.2 *All land that is identified within this local planning policy as being vulnerable to storm surge inundation shall be subject to the requirements of the local planning policy.'*

4. JUSTIFICATION

State Planning Policy 2.6 – State Coastal Planning Policy

SPP 2.6 requires that where risk assessments identify a level of risk that is unacceptable to the community or proposed development, adaptation measures are required to be considered to reduce those risks down to an acceptable level. In particular, it requires development within the Pilbara region to plan for and manage risk associated with a 500 year ARI storm surge event.

This proposed scheme amendment will provide the Council with the ability to consider such adaptation measures. In particular, this amendment will ensure that TPS8 and the associated local planning policy DP19 will have regard to the 500 year ARI storm surge event as opposed to the 100 year ARI storm surge event currently reference within the scheme.

The proposed scheme amendment is in accordance with the objectives of SPP 2.6.

Furthermore, the proposed scheme amendment and accompanying local planning policy are informed and supported by a Coastal Hazard Risk Management and Adaptation Plan, which establishes a risk framework and undertakes a strategic assessment of storm surge risk within the District.

State Planning Policy 3.4 – Coastal Hazards and Disasters

State Planning Policy 3.4 – Coastal Hazards and Disasters (SPP 3.4) was prepared to ensure that land use planning appropriately considers the risk of natural hazards and disasters. It addresses storm surge as well as a range of other hazards.

With respect to storm surge, SPP 3.4 references draft SPP2.6, which requires regard to the 500 year ARI storm surge event.

The proposed scheme amendment is in accordance with the objectives of SPP 3.4.

Karratha Coastal Vulnerability Study

The implications of the findings of the Karratha Coastal Vulnerability Study are considerable in terms of the City's assessment of Development Applications, particularly those proposals which fall within the "Storm Surge Risk" Special Control Area ('SSR-SCA') under the City of Karratha TPS8. The area of coverage of the SSR-SCA is shown on the TPS8 maps as extending along the entire City of Karratha coastline to the north of North West Coastal Highway, inclusive of the majority of the Karratha townsite.

Proposals which fall within the SSR-SCA must currently be assessed according to Clause 7.5 of TPS8, which requires City staff to consider whether a particular parcel of land is "prone" to a 100 year ARI storm surge events, and/or "known to be subject" to 100 year ARI storm surge events. Applications are then assessed on this basis. Development within the Residential, Commercial, Health, Welfare and Community categories of the zoning table are prohibited by TPS8 on land "known to be subject" to 100 year ARI storm surge events.

Prior to the preparation of the Karratha Coastal Vulnerability Study, Council lacked authoritative information as to which areas could be considered "prone" to, or "known to be subject" to, a risk of inundation during a 100 year ARI storm surge event. The Karratha Coastal Vulnerability Study has prompted Council to consider this distinction in a new light, with respect to its duty of care to residents to make adequate provision for the protection of human life and property from storm surge when determining Development Applications.

In addition to providing technical information in relation to Storm Surge, the Karratha Coastal Vulnerability Study models climate scenarios for the years 2010, 2060 and 2110. It also models storm surge and flood risk areas for storm events that may occur at average recurrence intervals (ARI) of 1 in 2 years, 1 in 10 years, 1 in 100 years, 1 in 200 years and 1 in 500 years.

With this additional technical information and modelling, the Council is better placed to evaluate risk and apply risk mitigation measures in relation to development proposals within areas prone to storm surge events. It is therefore appropriate to delete Clause 7.5 and insert

new provisions that permit Council to make decisions based on this technical information rather than generic exclusions.

Other Storm Surge Mapping

The City of Karratha has prepared and has access to mapping of the modelled 500 year ARI storm surge inundation event for the following localities:

- Dampier;
- Karratha;
- Point Sampson;
- Roebourne; and
- Wickham.

These represent the five (5) major development nodes along the coast within the City. This mapping has been prepared to varying levels of detail. For instance, Karratha has detailed storm surge mapping down to lot level detail, whereas mapping data in relation to Wickham identifies an AHD contour where all land below this contour level could reasonably be expected to be vulnerable to a 500 year ARI storm surge event. The City acknowledges the varying quality and level of mapping data for each of these localities and will endeavour to update the mapping (as contained within Schedule 1 of draft DP19 policy) over time. The mapping prepared to date for the five (5) towns is, however, considered sufficient for the purposes of ensuring storm surge risk is appropriately considered and planned for.

The mapping is proposed to be incorporated into the City's DP19 local planning policy on storm surge risk and will be used to define the extent of land to which the requirements of the Scheme and policy apply with respect to storm surge risk.

5. CONCLUSION

Following the preparation of the Karratha Coastal Vulnerability Study and the draft guidelines relating to SPP 2.6, the City has identified an urgent need to review Clause 7.5 of TPS8.

Both the Karratha Coastal Vulnerability Study and recent amendments to SPP 2.6 identify a range of ongoing risk management and adaptation planning measures that may be considered in assessing development proposals within a known storm surge risk area. It is therefore necessary to amend TPS8 to permit the Council to apply its discretion when considering development proposals within an area known to be vulnerable to a 500 year ARI storm surge event.

The proposed amendment to TPS8 is consistent with the Karratha Coastal Vulnerability Study, State Coastal Planning Policy 2.6 and State Planning Policy 3.4.

Based on the above, it is respectfully requested that the Western Australian Planning Commission support the proposed scheme amendment and that the Minister grant final approval.

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'4.1.3 Unless otherwise referred to in clause 4.1.4 or 4.1.5, the planning approval of Council is not required for the following development of land:...'
4. Inserting a new clause 4.1.5 as follows:
'4.1.5 Where land is identified as being vulnerable to storm surge inundation pursuant to Clause 6.17, the following uses identified within Clause 4.1.3 will cease to be exempt from the requirement to obtain planning approval:
 - (a) The development of land in a reserve, where such land is held by the Council or a public authority, and where the proposed development is for the purpose for which the land:*
 - (i) is reserved under the Scheme; or*
 - (ii) may be lawfully developed by the Council or public authority.*
 - (b) The erection on a lot of a single house, including any associated outbuilding(s) and/or ancillary dwellings;*
 - (c) A family day care centre.'*
5. Inserting a new clause 6.17 as follows:
'6.17 STORM SURGE RISK
 - 6.17.1 The local government is to maintain a local planning policy on storm surge risk which will contain mapping that identifies land within the District that is vulnerable to storm surge inundation.*
 - 6.17.2 All land that is identified within this local planning policy as being vulnerable to storm surge inundation shall be subject to the requirements of the local planning policy.'*

ADOPTION

Adopted by resolution of the Council of the City of Karratha at the Ordinary Meeting of the Council held on day of 2014.

.....
MAYOR

.....
CHIEF EXECUTIVE OFFICER

FINAL ADOPTION

Adopted for final approval by resolution of the City of Karratha at the Ordinary Meeting of the Council held on the day of 2014 .and the Common Seal of the City of Karratha was hereunto affixed by authority of a resolution of the Council in the presence of:

.....
MAYOR

.....
CHIEF EXECUTIVE OFFICER

Recommended/Submitted for Final Approval

.....
DELEGATED UNDER S.16 OF
THE PD ACT 2005

DATE.....

Final Approval Granted

.....
MINISTER FOR PLANNING

DATE.....

APPENDIX A
DRAFT DP19 STORM SURGE RISK LOCAL PLANNING
POLICY

