



# Draft Sea Level Rise Policy Statement

Submission of the  
Urban Development Institute  
of Australia

April 2009

## 1. INTRODUCTION

UDIA NSW welcomes the coordinated approach taken by the NSW Government in the release of the *Draft Sea Level Rise Policy Statement* (the draft Policy) and appreciates the opportunity to comment. Strong coordination between the key Government agencies and regular and robust consultation with the development industry will be critical to the delivery of a balanced approach to sea level rise policy.

The urban development industry is a major contributor to the NSW economy and its investment decisions are guided by key strategic documents including the State Plan, the Sydney Metropolitan Strategy and various Regional Strategies. The residential sector of the industry alone contributes more than \$15 billion worth of activity to the NSW economy annually. UDIA NSW believes in genuine sustainability including the preservation of environmental outcomes in balance with social equity and economic stability.

UDIA NSW supports the Government's intent to provide consistency and certainty for stakeholders with a state-wide sea level rise policy. Investment certainty is fundamental for the urban development industry to continue to develop new communities, contribute to the growth of the NSW economy and support the delivery of affordable housing objectives of government, industry and the broader community.

This submission has been prepared in the context of uncertainty in regard to the actual planning outcomes that will result from the prescription of a sea level rise planning level. UDIA NSW reserves the right to offer additional comment as further detail is revealed by the NSW Government.

This submission, developed by the UDIA NSW Council, Sustainability Committee, and Regional Chapters elaborates on the concerns of the urban development industry in NSW with regards to the draft Policy and provides a number of key recommendations for consideration by the NSW Government.

## 2. SEA LEVEL RISE POLICY

The draft Policy's primary objective is to, '*minimise the social disruption, economic costs and environmental impacts resulting from long-term sea level rise*'. UDIA NSW provides in-principle support for this objective providing that Government recognises that delivering genuine sustainability must be fundamentally concerned with ensuring intergenerational equity including the preservation of environmental, social and economic outcomes. Inherent in this balance is the need to ensure that the cost of delivering genuine sustainability is shared by the broad base of beneficiaries to the outcomes.

The draft Policy outlines five policy principles to deliver the NSW Government's sea level rise policy objective. This submission addresses the four principles which are of direct relevance to the urban development industry.

### 2.1 Promoting adaptive risk-based management

The draft Policy details that the NSW Government will promote an adaptive, risk-based approach to managing the impacts of sea level rise in the recognition that scientific projections of sea level rise are being continually refined. UDIA NSW agrees with this statement and the follow on statement that, "the accuracy of sea level rise projections will improve over time." UDIA NSW contends planning and investment decisions for future development require a level of investment certainty but acknowledges the accuracy of scientific projections at this stage is much less than certain.

The draft Policy advises the NSW Government has adopted a sea level rise planning benchmark above 1990 mean sea levels of 40cm by 2050 and 90cm by 2100 with reference made to the Department of Environment and Climate Change (DECC) *Technical Note: Scientific Basis of the 2009 Sea Level Rise Benchmark* (the Technical Note) . Considering the current scientific uncertainty and lack of accuracy in projected sea level rises, UDIA NSW

contends that any approach taken must consider as a foremost priority, the significant economic and social implications of setting notional height benchmarks.

This is particularly necessary for longer term projections on sea level rise including the 2100 projection and its associated benchmark in the draft Policy. UDIA NSW acknowledges the projections of the Intergovernmental Panel on Climate Change (IPCC) and the Fourth Assessment Report (2007) which represents the best currently available science and on which the DECC Technical Note relies.

The table below details the various IPCC scenarios and sea level rise projections as a function of projected greenhouse gas emission and temperature change scenarios.

**Table SPM.1. Projected global average surface warming and sea level rise at the end of the 21<sup>st</sup> century. {Table 3.1}**

Case	Temperature change (°C at 2090-2099 relative to 1980-1999) <sup>a, d</sup>		Sea level rise (m at 2090-2099 relative to 1980-1999)
	Best estimate	Likely range	Model-based range excluding future rapid dynamical changes in ice flow
Constant year 2000 concentrations <sup>b</sup>	0.6	0.3 – 0.9	Not available
B1 scenario	1.8	1.1 – 2.9	0.18 – 0.38
A1T scenario	2.4	1.4 – 3.8	0.20 – 0.45
B2 scenario	2.4	1.4 – 3.8	0.20 – 0.43
A1B scenario	2.8	1.7 – 4.4	0.21 – 0.48
A2 scenario	3.4	2.0 – 5.4	0.23 – 0.51
A1FI scenario	4.0	2.4 – 6.4	0.26 – 0.59

**Projected global average surface warming and sea level rise at the end of the 21<sup>st</sup> century, Intergovernmental Panel on Climate Change (2007), Climate Change 2007: Synthesis Report, Summary for Policymakers**

The scenarios outlined by the IPCC Fourth Assessment Report, assuming constant concentrations of greenhouse gases at year 2000 levels, do not project sea level rise greater than 0.59 metres based on all scenarios between 2090 and 2099. This excludes the possibility of future changes in ice flow melt and regional variations, projections of which remain highly speculative and uncertain.

Considering the uncertainty of sea level rise projections and lack of scientific confidence in one particular scenario, UDIA NSW contends that a sea level rise planning benchmark of 90cm by 2100 is excessively cautious and unrealistic for the purpose of incorporating into planning benchmarks. UDIA NSW contends that the adoption of this benchmark will severely impact development viability and constrain coastal development and will also present significant social and economic challenges for existing residents and businesses.

UDIA NSW contends that the adoption of the 2100 benchmark is counter to the draft Policy objective of *'minimising social disruption and economic costs'*. Further the adoption of a 2100 benchmark based on an excessively cautious sea level rise projection adversely impacts competing priorities in a genuine approach to sustainability such as economic growth and housing affordability.

UDIA NSW contends that a more balanced approach to sea level rise planning requires only at this stage a 2050 benchmark. This approach appropriately recognises the evolving understanding of the science of climate change and its likely impacts.

It must also be noted that current conventional flood planning approach of applying a 50cm freeboard to floor levels would provide a total clearance of 90cm if the proposed 2050 40cm sea level rise benchmark was applied. UDIA NSW contends that this approach would provide more than sufficient protection from any anticipated impacts. This also negates the perceived need for a highly speculative and scientifically questionable 2100 benchmark.

The evolving scientific understanding of climate change and the associated impacts accentuates the need for the period review of planning controls in relation to sea level rise. UDIA NSW contends that a review of the NSW Government's sea level rise policy every five

years to review agreed benchmarks based on best available science would provide a prudent approach to sea level rise policy.

## **RECOMMENDATION 1**

*UDIA NSW recommends that the Government adopt as a maximum the sea level rise planning benchmark of 40cm for 2050 and in recognition of current scientific uncertainty not adopt the 2100 benchmark.*

## **RECOMMENDATION 2**

*UDIA NSW recommends that a review of sea level rise benchmarks be undertaken every five years based on the best available science.*

The draft Policy states that, *'There is no regulatory or statutory requirement for development to comply with this benchmark'*. Without statutory effect there is also no requirement for councils to comply with the sea level rise benchmarks. This may encourage a disparate and uncoordinated policy response from the various local councils who have concerns regarding perceived liability.

UDIA NSW contends that the NSW Government sea level rise policy must be given statutory effect. The urban development industry requires certainty and consistency when making investment decisions.

The current policy states that the sea level rise benchmarks will provide *'guidance and support for consistent consideration of sea level rise impacts, within applicable decision-making frameworks'*. UDIA NSW contends that consistency is not guaranteed or ensured for the purposes of development assessment and plan making at local and state government levels through the release of non statutory requirements.

The Western Australia State Coastal Planning Policy, *State Planning Policy 2.6* (SPP 2.6) has been in effect since 2003. SPP 2.6 is a consistent state-wide planning policy that identifies a sea level rise of 0.38m by 2100 to inform coastal development controls and planning. While UDIA NSW offers no comment on the validity of the numerical standard applied in WA, the use of a consistent statutory instrument is strongly supported and should be adopted for any future NSW model.

UDIA NSW contends that the NSW Government's sea level rise policy must be given statutory effect and incorporate statutory limits on flood planning levels. UDIA NSW contends that the NSW benchmark should provide a maximum limit and standard for related planning controls.

The statutory instrument could make provision for the NSW Government to mandate localised benchmarks in highly specific instances where it determines necessary. This would be strictly limited to instances where the Minister for Planning determines on the basis of the Government's own assessment that a specific localised benchmark should apply. This would be reflected in the principal statutory instrument.

UDIA NSW offers two mechanisms for the NSW Government to consider which will ensure consistency within NSW and provide certainty to all stakeholders including consent authorities and developers. These include:

1. the making of a State Environmental Planning Policy (SEPP) on sea level rise benchmarks and incorporating flood planning provisions would ensure consistency and certainty amongst all stakeholders in the planning and development process; or

2. a Ministerial Direction or Section 117 Direction providing statutory effect to the NSW Government's sea level rise policy incorporating the concerns discussed in this submission.

#### **RECOMMENDATION 5**

*UDIA NSW recommends the making of a statutory instrument for sea level rise benchmarks to ensure certainty and consistency in sea level rise policy.*

#### **RECOMMENDATION 6**

*UDIA NSW recommends that any variations to the statutory benchmark be strictly limited to instances where the Minister for Planning determines on the basis of the Government's own assessment that a specific localised benchmark should apply.*

### **2.2 Supporting local councils**

The draft Policy advises the NSW Government will, '*continue to provide funding assistance to councils to prepare studies to identify areas at risk from coastal flooding and coastal hazards.*' UDIA NSW supports this objective but contends that stronger guidance must be provided to councils on how to appropriately model risks from storm, flooding and coastal hazards.

UDIA NSW has previously raised concerns with the Department of Planning in regard to flood planning levels and inconsistencies in the interpretation of the Flood Prone Land Policy and Floodplain Development Manual. These documents provide advice to councils on appropriate flood related development controls and have been incorrectly interpreted by a number of councils, resulting in adverse planning and land use outcomes.

UDIA NSW is also concerned that the progressive application of worst-case scenario modelling of events such as high-tide, storm surge, structure blockage etc, have been used such that the probability of the modelled flood is statistically much more remote than the designated flood would suggest. Simply, the modelling has been applied in a manner such that the perceived risk and therefore the planning outcome, significantly outweighs the actual risk of flooding. The resulting land use and likely development outcome is often significantly compromised by this approach.

The absence of a statutory control has the potential to foster a regulatory environment where incorrect interpretations of sea level rise policy are provided, as has sometimes been the case with flood planning policy. UDIA NSW contends that the Government must provide strong direction to councils to ensure that this outcome is explicitly avoided in the application of sea level rise planning policy. The NSW Government should provide clear guidance to councils on how to consider sea level rise in flood modeling so that the combination of extreme event probabilities are not distorted.

#### **RECOMMENDATION 5**

*UDIA NSW recommends that the NSW Government provide clear guidance to councils so that sea level rise is treated appropriately in flood modelling and the combined probability of extreme flood related events does not distort the actual flood risk.*

### **2.3 Supporting appropriate coastal development**

The draft Policy states, '*The benchmark is not intended to be used to preclude development of land projected to be affected by sea level rise.*' UDIA NSW supports this statement in the context of a holistic approach to planning and development assessment. Sea level rise represents a single issue amongst many to be considered in the planning and assessment of

coastal development. UDIA NSW contends that development proposals must not be restricted on the basis of projected sea level rise alone.

The draft Policy continues, '*The goal is to ensure that such development recognises and can appropriately accommodate the projected impacts of sea level rise on coastal hazards and flooding over time, through appropriate site planning and design.*' UDIA NSW acknowledges this objective.

UDIA NSW encourages its members in the creation of urban development that is capable of adapting to an evolving physical environment through innovation, good design, efficiencies and technological advances. UDIA NSW contends that these objectives must be delivered within an economic and regulatory framework that ensures affordability for future generations.

The draft Policy advises that, '*Landowners affected by current and future coastal hazards may seek approval from their local council to construct work on their land to protect their property.*' To support the urban development industry in adapting to projected sea level rise impacts, UDIA NSW contends that the government must provide a simple planning mechanism to permit mitigation works on public land as well as private land as required. Such works would include protection and maintenance works where appropriate.

The draft Policy advises that the Department of Planning will be developing guidelines on how sea level rise should be considered in land use planning and development approval decisions by councils. Along with local councils, the urban development industry is the most significant stakeholder and the most at risk economically from the application of sea level rise policy in the planning process.

UDIA NSW contends that extensive consultation with industry is required in the preparation of sea level rise guidelines. UDIA NSW contends that any guidelines must complement a statutory instrument on sea level rise.

UDIA NSW contends the NSW Government's Sea Level Rise Policy should not be adopted until the Department of Planning sea level rise planning guidelines have been finalised. Workable guidelines must first be established to ensure certainty for stakeholders and provide the development industry with an understanding of the implications of the policy in its final form.

## **RECOMMENDATION 6**

*UDIA NSW recommends the government provide a mechanism to permit coastal hazard mitigation works on public and private land as required.*

## **RECOMMENDATION 7**

*UDIA NSW recommends that the Policy must not be adopted until the sea level rise planning guidelines have been demonstrated as workable and realistic.*

UDIA NSW is concerned that landowners affected by actual sea level rise may not be able to practically develop such land on the coast as a result of potential increased flooding and coastal hazards. UDIA NSW contends that in instances where this occurs, consideration must be provided by sea level rise policy to include this land for calculable open space and biodiversity offsets. Positive incentives for developers to develop coastal land not anticipated to be affected by sea level rise should also be considered.

## **RECOMMENDATION 8**

*UDIA NSW recommends that in instances where land is rendered undevelopable by sea level rise, such land should be considered as calculable open space and permitted for biodiversity offsets.*

## 2.4 Information Availability

UDIA NSW welcomes the NSW Government's commitment to continue providing updated information on sea level rise and its impacts as this supports industry in the planning and design stage of new coastal developments. Constantly reviewed scientific information is useful for the consideration of climate change and its impacts early in the planning stage of new development.

The draft Policy intends that public access to current and credible information on sea level rise will assist the insurance industry to price risks from sea level rise in their insurance policies. UDIA NSW understands that some local councils may be concerned about their own liability as a result of approving development which could potentially be affected by sea level rise. This concern must be addressed in the NSW Government sea level rise policy.

There is a clear need to balance economic and social priorities and facilitate development within a changing environment. UDIA NSW recommends that the NSW Government must ensure that councils are provided with robust and credible guidance in regard to perceived liability issues regarding development in potentially at risk locations. This may include temporary indemnity provisions while statutory planning controls are being developed.

### RECOMMENDATION 9

*UDIA NSW recommends that the NSW Government ensure that councils are provided with robust and credible guidance in regard to perceived liability issues regarding development in potentially at risk locations. This may include temporary indemnity provisions while statutory planning controls are being developed.*

### 3. CONCLUSION

UDIA NSW has reviewed the *Draft Sea Level Rise Policy Statement* and welcomes the NSW Government's intention to commit to a consistent whole of government approach in the development of sea level rise policy. UDIA NSW appreciates that the development of sea level rise policy is a complex process and will require further refinement.

As the peak body representing the industry with the largest economic stake in sea level rise policy, UDIA NSW has offered eight recommendations in this submission. We would welcome the opportunity to meet directly with the Department to discuss this submission and look forward to further involvement in the development of the specific planning guidelines.

#### Recommendations

1. UDIA NSW recommends that the Government adopt as a maximum the sea level rise planning benchmark of 40cm for 2050 and in recognition of current scientific uncertainty not adopt the 2100 benchmark.
2. UDIA NSW recommends a review of sea level rise benchmarks every five years based on best available science for the consideration of stakeholders.
3. UDIA NSW recommends the making of a statutory instrument for sea level rise benchmarks to ensure certainty and consistency in sea level rise policy.
4. That any variations to the statutory benchmark be strictly limited to instances where the Minister for Planning determines on the basis of the Government's own assessment that a specific localised benchmark should apply.
5. UDIA NSW recommends that the NSW Government provide clear guidance to councils so that sea level rise is treated appropriately in flood modelling and the combined probability of extreme flood related events does not distort the actual flood risk.
6. UDIA NSW recommends the government provide a mechanism to permit coastal hazard mitigation works on public and private land as required.
7. UDIA NSW recommends that the Policy must not be adopted until the sea level rise planning guidelines have been demonstrated as workable and realistic.
8. UDIA NSW recommends that in instances where land is rendered undevelopable by sea level rise, such land should be considered as calculable open space and permitted for biodiversity offsets.
9. UDIA NSW recommends that the NSW Government ensure that councils are provided with robust and credible guidance in regard to perceived liability issues regarding development in potentially at risk locations. This may include temporary indemnity provisions while statutory planning controls are being developed.