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Address: PO Box 6021
Parliament House
Canberra ACT 2600

To: Kate Sullivan, Inquiry Secretary

Supplementary response to Committee questions

At the Melbourne hearing where I gave evidence to the Committee, Committee members asked questions about the implementation of some the proposals presented in papers I submitted earlier. This supplementary response seeks to fill our more detail to those questions.

I have proposed that risks should be actively managed and that it should be obligatory that they be managed. Some of the questions arising from this include:

1. Who is obliged?
2. Exactly what are they obliged to do?
3. When should this obligation be invoked?
4. What is the Australian Government's role?
5. How is this obligation to be enforced and who enforces it?

In addition, I have added a short note on the contribution to costs of risk management.

Who is obliged?

Local government is the appropriate authority to fulfil this role, hence to bear the obligation.

- The obligation substantially meshes with existing obligations for land use planning and indeed decisions about risk management will both drive future land use planning decisions and be driven by past land use planning decisions.
- The information required to actively manage risks substantially overlaps with the hazard assessment required to fulfil existing land use planning obligations.
- Consultation shows a preference in the general public for local government to lead decision making about adaptation in coastal areas.
- The scale of management planning most appropriate to adapt to coastal hazards broadly aligns with the scale of local government, specifically it is larger than can be practically addressed by individual land owners and much smaller than the State government level with many local area issues to be considered. In some cases a regional level body may be appropriate where this body also plays a significant role in land use planning.
- In some States there is already some more general requirement for local government to assess and manage coastal risks. In other cases this tends to apply more to individual properties.

Having identified local government as the body ultimately responsible for actively managing coastal risks, I note that there are significant roles for senior levels of government to facilitate this and keep total costs as well as costs to local government at acceptable levels.

- The Australian Government has already initiated some of the foundational work of identifying priority areas for risk assessment through such tools as *Smartline*. If this is complemented by developing a comprehensive assessment of offshore wave regimes around the Australian coast, and likely frequency and impact areas for cyclones, there will be a stronger foundation for identifying the broad priority areas where there are substantial assets at risk, either built assets or natural assets.
- State governments can provide more detailed digital elevation modelling for low lying and vulnerable areas and near shore wave modelling of those coastal areas identified as priorities from the national work. This further focuses the priorities to specific local areas likely to have significant risks. While in the long run it may be desirable to assess all coastal areas, for the medium term, these identified priority areas are the ones **where** an obligation should apply.
- I note that our experience suggests that local governments generally know where these areas are from the experience of past erosion or flood events, or the identification of low lying areas. However, the 'top down' analysis serves two purposes:
 - To identify locations where an obligation to manage risk can be justifiably imposed, (and it should not be imposed until this higher level analysis has been done).
 - To provide the wave and elevation results essential to allow local government to cost effectively assess the hazards and the local level and to then identify risk.

In identifying Local Government as being subject to this obligation, I am mindful of the fact that this level of government often has limited resources and capacity and that they will require assistance to meet such additional obligations. In part this is discussed below under contribution to costs, and some technical support to local governments is identified in the first two dot points above. There needs to be a review of the resources and funding required and the level of support needed by local governments to respond to this obligation and inevitably this will have to come from senior levels of government. This underscores the importance of screening to identify high priority areas with genuine short term need and to devote resources to areas as required, rather than trying to address all coastal areas right away.

What is the obligation?

Where an area has been identified as a priority coastal risk location, local government would be obliged to:

1. Identify the hazards (principally inundation, erosion, storm surge, rising water table but potentially others) that apply at each location and map the coastal hazard zone for each under current conditions and for a range of future sea levels.
2. Identify the built and natural assets at risk from these hazards and quantify the scale of risk.
3. Prepare a plan for risk management that addresses the identified risks through some combination of protection, accommodation, retreat and emergency management planning in consultation with the local community and other coastal users.
4. Implement the plan within a period of 5 years, (although some elements of the plan may not be invoked until the sea rises further).

When is the obligation invoked?

As noted in an earlier section, the obligation would not be invoked until a higher level assessment identifies an area as a priority area for assessment/risk management. Based on progress to date, this could well be completed for most of Australia within about 2-3 years. It is proposed that this higher level assessment be periodically reviewed, perhaps after each increase of sea level of 0.1m from the previous assessment.

For areas that have previously developed coastal risk management plans, the plan is expected to define what conditions it addresses. That is, it may be a plan that is expected to manage risk for a further increase of say, 0.2 m. Once the sea rises more than this, the plan would need to be reviewed and revised. Alternatively, if the plan envisaged a number of stages of risk management allowing for significant ongoing change, then as long as these stages are implemented in the agreed manner, there may be no need for review.

Any time there is a coastal event resulting in significant damage to assets, a plan would need to be developed for the affected area (if there is not one already) or the existing plan reviewed to ensure that it did not need upgrading. Note that even where an acceptable plan is in place, more extreme events will occur potentially leading to losses. This does not mean that the plan was wrong. Risk management does not mean zero risk.

Australian Government's role

States carry the principal responsibility for regulating land use management. The Australian Government has a major role in supporting disaster relief. The Australian Government therefore has an interest in land use management insofar as it affects future likelihood or severity of disasters.

It would therefore seem appropriate that the Australian Government might offer assistance and also incentives to States and Territories that adopt policies requiring active risk management of coastal areas. Assistance would include the national level assessment of hazards affecting coastal areas described above. Additional assistance may be offered to States for more detailed coastal risk assessment and subsequent assistance in managing risk subject to adoption of a State policy of requiring active management of risks in coastal areas. Provision of new infrastructure funding for infrastructure serving coastal areas could also be conditional upon achieving acceptable levels of coastal risk management.

The ultimate sanction may be to restrict disaster relief payments to states where risks have not been managed when identified. However, as this may disadvantage individuals not responsible for the lapse, it could prove to be inequitable as well as politically unsustainable and therefore not recommended.

Enforcement

Any obligation for action imposed on Local Government by the State (or indirectly by the Australian Government) will require consideration of what enforcement procedures would be used in the event that the obligation is not met. Enforcement may involve the withholding of incentives or benefits rather than imposition of penalties. Any enforcement measures should also be commensurate with the scope or scale of failure to comply.

Direct enforcement of the obligation to manage risk on local government would be by State government. Possible enforcement approaches may include:

- If coastal risk management is linked to planning schemes, the approval of new or revised planning schemes that include identified priority hazard areas would be contingent upon having a coastal risk management plan prepared.
- Failure to prepare a plan in priority areas of identified hazard or to implement it within identified timelines would result in a total freeze on development activity in the hazard zone including any new ad hoc coastal protection works. If the hazard zone has not been identified in detail, then a default hazard zone would be identified based on conservative, generic elevation or setback benchmarks and the freeze applied to this area until it is defined for local conditions (step 1 under obligations listed).

Such an approach involves a risk of creating perverse incentives. If there are few development opportunities in an area a development freeze will have less effect while these fully developed areas are likely to have the highest risk. Restricting ad hoc coastal protection works may increase

the incentive to comply, but may also elevate risks in the short term. Notwithstanding these limitations, it is expected that such impositions combined with some incentives would be sufficient to motivate a response in most areas.

One incentive may be to offer to meet a higher share of risk management costs during the transition for jurisdictions that comply within a specified period of a location being identified as a priority risk area.

Contribution to the costs

It has been proposed that local government would be obliged to develop and implement risk management plans to address developing coastal risks from climate change. However, as noted above, this level of government already faces significant limitations on funds and resources. If this is to be accomplished, much of the funding for both the planning and implementation will have to come from senior levels of government particularly for smaller councils and for councils with relatively large areas affected relative to their size and population.

In the short term, it is anticipated that Local, State and Australian Governments will meet the cost of addressing risk to their own assets (roads, water and sewer treatment plants, etc.). These are likely to represent a major part of built assets at risk in many locations.

During the transition period (I have proposed 25 years), charges on existing property owners would be primarily limited to those that already explicitly have an obligation for risk management at their expense. Where risk management for other private property is required, all three levels of government would likely make some contribution, but the capacity of local government in most cases will be limited. However, the risks managed in the transition period largely reflect present day risk and are substantially the result of historic coastal management practices within the jurisdiction. It would be appropriate that the share of contributions should reflect the quality of these past decisions. States and local governments that have permitted or even encouraged risky coastal development could expect to receive less assistance (relative to the level of effort required) than those jurisdictions that have made more cautious decisions in hazard areas.

After the transition period, it is proposed that those that benefit from active management of coastal risks should bear the cost of both planning and implementation. This includes both users of coastal areas as well as property owners. Further, they would contribute to any 'abnormal' levels of spending required to maintain public infrastructure or services that arise from risks due to climate change. This lifts the cost burdens from all levels of government and makes clear to occupants of coastal areas the cost implications of development in hazard areas. As this cost may be substantial, even to the point where in some cases abandoning a property may be more cost effective than other action, it is recommended that this obligation should be registered on property titles in affected areas. This is considered to be an important element of communicating the changes in responsibilities to the community.

Identifying benefits can never be exact, but should be sufficient to avoid major inequities between contributors. For example, while frontline properties clearly immediately benefit most from measures to limit erosion of the shoreline, properties behind them also benefit in the long run. Otherwise they may too become frontline much sooner.

There are precedents for estimating individual contributions to community expenditure, for example the estimation of development contribution charges for infrastructure imposed on new developments in some jurisdictions. The main difference is that the proposed coastal risk management charge applies to existing as well as new developments. In general, unimproved land would be exempt or make only limited contributions.

In some states it is likely that local government already has explicit capacity to levy such charges. In other states and territories, it may be necessary to pass enabling legislation to allow or support this.

While I trust this supplementary submission addresses your questions in more detail, if there are any further questions arising, I would be happy to respond.

Yours truly,

A handwritten signature in black ink, appearing to read 'C Attwater', written in a cursive style.

Clive Attwater
Director, SGS Economics & Planning