

3 FUTURE COASTLINE MANAGEMENT CONSIDERATIONS

3.1 General Considerations

Beach erosion related issues are associated primarily with a direct threat to property or structures as a result of erosion during a storm event and/or longer-term recession trends. Regional and longer-term Coastline Management Plan strategic options to deal with beach erosion depend on a range of physical, social and economic factors including:

- the erosion hazard issues;
- practical effectiveness;
- cost effectiveness; and
- social acceptability.

Options for dealing with the erosion threat will be considered as part of the future Coastline Management Plan. At this stage of the process, it is important that any emergency response actions, interim works and planning controls do not unduly compromise future coastline management options.

In particular, consideration needs to be given to the goals of the NSW Coastal Policy and the Coastline Management Manual to achieve a sustainable future for the coast while balancing environmental, economic, cultural and recreational needs. In this regard, the interim actions should also be consistent with anticipated options of the final Coastline Management Plan and thereby substantially in accordance with the principles of the Coastline Management Manual (1990) and the NSW Coastal Policy (1997).

The Coastal Policy recognises human occupation and use of the coastline as an essential part of the coastal environment. It places emphasis on:

- ecologically sustainable development and use of resources;
- ecologically sustainable human settlement (to minimise impacts of present and planned urban settlements);
- provision of appropriate public access and use;
- information for effective management; and
- integrated planning and management.

The NSW Coastal Policy also seeks to ensure all emergency actions are compatible with the coastal environment.

3.2 Coastline Management Options

In considering the threat of immediate and/or longer-term erosion, the fundamental management alternatives are to:

- hold the coastal alignment via protection works in one of many ways; or
- retreat and let natural erosion take its course.

There are alternative approaches within these two categories. Variations in the retreat options relate primarily to the nature of ownership of the land and the mechanisms/time frames for removal of structures and transfer of ownership. The intent of the retreat options is to remove the development under threat and allow the natural character and amenity of the beach to be retained as the shoreline recedes. Protection options to hold the present coastal alignment fall into two sub categories:

- purely structural measures such as seawalls, groynes or offshore breakwaters/reefs to either directly protect the property or trap sand to rebuild the beach in front; and
- beach nourishment to rebuild the beach with imported sand from outside the active beach system to make up the deficit, either alone or with other control structures to improve the longevity and give added protection.

There are various advantages and disadvantages of such options, which need to be considered in determining the most appropriate course of action and this will be undertaken as part of the future Coastline Management Study and Plan.

The NSW Coastal Policy gives preference to options which retain the natural beach character and have a low impact on beach amenity. Options which have the ability to achieve this are planned retreat and protection options which incorporate beach nourishment. Purely structural options such as seawalls may be effective in protecting the property behind but this is generally at the expense of beach amenity. Accordingly, future coastline management options are unlikely to include seawalls alone.

3.3 Specific Considerations

The likely nature of future coastline management options at Lennox Head needs to be considered in determining potential emergency and interim works as well as interim planning measures. This relates essentially to the likelihood of either implementing protection works or a long term retreat policy.

If planned retreat is preferred in the long term, further interim protection works such as enhanced seawalls will add to the ultimate cost by having to be removed in the future. Similarly, if further development is allowed to occur in longer-term hazard zones, this may increase the pressure for protection strategies and compromise the ability for planned retreat to be implemented. There will also be added cost either to the Government and/or private landowners to remove structures and acquire the land depending on the mechanism adopted for planned retreat.

Conversely, if protection strategies are preferred in the future, interim works may be consistent with these. Furthermore, the implementation of successful protection works or strategies will effectively remove the erosion threat and constraints to development within existing erosion hazard zones. However, there may remain some uncertainty with respect to the timeframe of protection measures being implemented and a commitment to ongoing maintenance to ensure adequate protection is provided.

Future coastline management options will be subject to detailed investigation and community consultation and cannot be pre-empted. However at this stage, it is considered unlikely that a planned retreat policy will be implemented given:

- the extremely high cost to remove structures and acquire the land as a result of the length of foreshore, the number of properties involved, and the present value of coastal land;
- once implemented, there will be an ongoing need to address the erosion threat to development behind and commit further funds which may be prohibitive;
- the consequences of a break-through to Lake Ainsworth;
- the social dislocation associated with residents having to relocate;
- unanswered questions about the legal enforceability of planned retreat; and
- potential inequity with the existing Lennox Head Beach Management Plan and Lake Ainsworth Sport and Recreation Centre development approval, which provide for protection.

It is therefore likely that some form of protection will be adopted as a long-term strategy. To satisfy the goals of the NSW Coastal Policy, protection works would need to have a low impact on beach amenity and natural processes. Purely structural measures such as seawalls are likely to be least favoured in terms of satisfying the goals of the Coastal Policy. However, they can be incorporated as a 'last line of defence' with other alternatives used to maintain a sandy beach.