

Bega Valley Shire Integrated Coastal Management Program

Summary

The coast in Bega Valley Shire is arguably its greatest asset. The Bega Valley Council has implemented an integrated coastal management program that allows adaptation to the changing physical processes of the coast and seeks to meet the present needs of the community and those of future generations. The program aims to preserve, wherever possible, natural ecosystem function and to plan human settlements and infrastructure so that coastal processes can operate appropriately in a climate changed future.

To achieve this aim the Council has adopted an innovative landscape approach in its land use planning that seeks to maintain natural coastal functioning which includes links between the coast, estuaries and forest areas. New landscape zonings also include both vertical and horizontal buffers to support ecological function in the context of natural variability and longer term change. Strong stakeholder and community engagement secured support for the planning changes.

Bega Valley Shire's coastal area is arguably the Shire's greatest natural asset. Encompassing over 1/8 of the State's coastline, the coastline is 225 km long, has 29 estuaries and 101 ocean beaches. Five of the Shire's six major settlements occur along the coast and 50% of the Shire's population lives within 1.5 km of the coast. Yet, 45% of the Shire's population lives adjacent to only 10% of the coastline. This concentration of population, particularly when combined with seasonal tourist and local visitor usage, places increased pressure on our coastal environment.

Innovative coastal zone land use planning as a product of a coastal management framework

Council adopted an innovative landscape approach, when applying the new Standard Template and zonings to the Shire's coastal catchments, in the development of the Comprehensive Local Environmental Plan (CLEP). Starting at the estuaries/coastline and moving up the catchment, Council implemented an integrated system of land use zonings. These zonings focus on providing protection for our estuaries, their immediate catchments and providing functional links to the adjoining areas of National Park and State Forest.

Keywords

Land use zoning, innovation, community support

Rather than adopting the commonly used 'like for like' approach—which poses that for one species or system that is impacted a similar one must be protected— Council undertook a detailed review of its coastal zone. Through this it could identify and ensure that key natural and social values were protected and enhanced by applying appropriate Environmental Zonings, land use tables and Natural Resource overlays.

Council's previous Local Environment Plan (LEP) had attempted to protect sections of the coast and foreshore through the use of Foreshore Protection and Coastal Protection zonings. However these zones did not necessarily consider the physical or biological functioning of the coastal zone, let alone contemporary coastal risks. The zones did not provide an appropriate riparian buffer nor did they effectively accommodate the extent of existing riparian or wetland ecosystems. Reinforcing this was the lack of appropriate zoning in some areas beyond the foreshore that had resulted in coastal estuaries being compromised by sedimentation.

For the new landscape zonings, a key aspect is the incorporation of both vertical and horizontal components of foreshore and riparian buffers (after Haines et al. 2006) when determining appropriate setbacks. The vertical buffer accommodates natural variability (e.g. in intermittently closed and open lakes and lagoons (ICOLL)) in water levels and predicted sea-level rise, whilst the horizontal buffer provides for the continued ecological functioning and, if necessary, up-slope migration of riparian vegetation communities. Private assets can also be protected in the long term through this approach.

For example, as part of Council's LEP 2013, an 80-100 m E2 Zone has been applied to the foreshore to both provide an appropriate buffer from climate change impacts (e.g. sea-level rise and coastal hazards) and to allow for estuarine protection and health.

The landscape approach to land-use zonings has been complemented by a number of management responses, especially those in relation to coastal risk and estuary health in the immediate coastal zone (i.e. coast to coast range).

To achieve these conceptual changes, it has been critical to secure the support from elected representatives, key stakeholders, internal departments and, importantly, the broader community. Council has been able to learn from the collective experience of local governments throughout Australia in terms of coastal land use management: this has helped to focus its efforts on maintaining natural coastal environmental function and prioritising public access. This also helped the broader community to consider the coastal and estuary zone as an area that all can, and should, be able to access. Local Councillors were kept abreast of developments through regular Councillor workshops and formal meetings. This was supported by the broader coastal management program which helped all stakeholders focus on what they found valuable and unique about our coastal environment and therefore what was worth protecting.

Council officers also took a pragmatic and reasonable approach to land zonings which helped avoid adverse public backlash but still communicated the need for change and the potential broader environmental, economic and recreational benefits.

Long term coastal management program

Council has focussed on a long-term coastal management program that creates a practical pathway for other stakeholders to follow. The program approach is (see more detail in Figure 1):

- 1. Vision
- 2. Strategy
- 3. Planning
- 4. Research
- 5. Management
- 6. Education
- 7. Partnerships
- 8. Action.

After its initial establishment, Council continues to review and implement each element of its coastal program as there is constant change and evolution of stakeholder needs, environmental realities / understandings, funding opportunities and state government directions.

Bega Valley Shire Council - Coastal Management Program

A comprehensive system of coastal zone management – a snapshot

 Community Strategic Plan: "The coastal zone remains our premier natural asset and is protected through appropriate land use planning, infrastructure siting and regulated resource usage" • 2013 Local Environmental Plan - Coastal Catchment Plannning • Coastal Management Program • Estuary Management Programs, 7 EMP's currently being implemented Strategy • Rapid Catchment Assessments (3) (2016) • Climate Change Strategy (2014)- Coastal Adaptation • South East Coastal Adaptation Project - Uni. Canberra • Coastal Access Stratgey - improving access and connectivity to our coastal environments Planning • Foreshore Reserves - Plans of Management • Reserve Planning / facility design - Coastal Icon Sites • BVSC Estuary Health Monitoring Project - 3 year program monitoring the ecological health of 10 major estuaries • Coastal Processes and Hazard Defintion Study (completed Dec 2015) • Reserach MoU with Wollongong Uni - Coastal Zone Management • Sydney Coastal Councils Group - various Coasal Planning & Adaption Projects BVSC Coastal Planning and Management Committee • Entrance Management Policies • 1,000ha of coastal public reserve -asset management plans Management • Visitor Management; Companion Animal Beach Program Boating Facilites Program • Love Our Lakes Project - estuary / coastal ecosystem health ed. program delivered to 2000+ school children, business audits, signage • Coastal Weeds Project: field days, interp signage, community based Education • Coastal & Love Our Lakes web pages, Shirewide interpretive signage • Marine Algae Guide for Far South Coast Former SRCMA (South east)/ Land Care Groups • Bega Coast Oytsers / Australia's Oyster Coast Partnerships • NSW Office of Environment & Heritage • Bournda Environmental Education Centre Sapphire Coast Marine Discovery Centre • Integrated foreshore protection works in key urban areas (Merimbula) • Shirewide dune rehabilitation and protection program - a primary focus · Love Our Lakes - estuary foreshore cleanups, planting, fencing Coastal access improvements - improving access to our coast for all members of our community Coastal Weeds Project - physical removal of weeds from over 200kms

Figure 1: Bega Valley Shire Council's comprehensive system of coastal zone management. Source: © Bega Valley Shire Council.

of coastline and public reserve

References

Haines, P.E., R.B. Tomlinson, and B.G. Thom, 2006: Morphometric assessment of intermittently open/ closed coastal lagoons in New South Wales, Australia. *Estuarine, Coastal and Shelf Science*, **67**, 321-332.

Further reading

Bega Valley Shire Council's website (all links accessed 18 May 2017):

Coastal Zone Management http://www.begavalley.nsw.gov.au/cp_themes/default/page.asp?p=DOC-PWI-04-88-50.

Coastal Zone Program http://www.begavalley.nsw.gov.au/cp_themes/default/page.asp?p=DOC-WND-76-61-32.

Coastal Processes and Hazards http://www.begavalley.nsw.gov.au/cp_themes/default/page.asp?p=DOC-FGA-21-14-86.

Estuaries of the Bega Valley Shire http://www.begavalley.nsw.gov.au/cp_themes/default/page.asp?p=DOC-FDD-11-04-76.

This Snapshot was prepared by Daniel Murphy from the Bega Valley Shire Council. Please cite as:

Murphy, D., 2016: Bega Valley Shire Integrated Coastal Management Program. Snapshot for CoastAdapt, National Climate Change Adaptation Research Facility, Gold Coast.







Department of the Environment and Energy