

# BEGA VALLEY SHIRE COUNCIL

## Natural Resource Planning

Draft Local Environment Plan 2010

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# Natural Resource Planning

## Background

As part of the development of the Local Environmental Plan (LEP) 2010, Council identified as a high priority the appropriate zoning, use and protection of the Shires Natural Resources and environmental values. The LEP (2010) provides the community and Council, the opportunity to consider the way our natural resources are valued, managed and utilised. Councils recognises the key importance of protecting our natural resources in providing for and contributing to various sectors of our economy and the quality of life of our residents.

The high quality of our natural resources is a key contributor to our tourist, aquaculture, fishing and agricultural sectors and as such Councils long term landuse planning will ensure that our environmental values are protected and enhanced.

The Shires natural resources, if managed well, will provide the Shire with a “natural advantage” over other areas. Our “natural advantage” can provide further economic opportunity for the attraction of new enterprise and industry, who wish to capitalise on the Shires natural values as part of their branding and promotion.

The Department of Planning produced a “Standard Template”, which all Council’s have been required to follow in the preparation of their new LEP’s. The Standard Template provides a limited number of land use zones, that Council can choose to apply across the Shire.

With regard natural resource management the most relevant new zonings available to Council are;

• RU1 – Primary Production	• E3 – Environmental Management
• RU2 – Rural General	• E 4 – Environmental Living
• RU3 – State Forest	• W1 – Natural Waterway
• RU4 – Rural Small Holdings	• W2 – Recreational Waterway
• E1 – National Parks	• W3 – Working Waterway
• E2 – Environmental Conservation	

When applying the above new zonings, Council considered a range of factors including existing zonings, current and projected landuse, environmental values (e.g. biodiversity, soil and landscape protection, biodiversity, catchment and waterway protection) environmental hazards and wide range of data provided to Council from various State Government Agencies.

While acknowledging the need to appropriately protect the Shires natural resources, Council as a priority wanted to ensure that the Shires primary agricultural areas were recognised and appropriately zoned. As such when considering the application of appropriate natural resources zonings the Shire was essentially broken into 2 broad areas – the rural valleys and the coastal catchments.

## **The Rural Valleys (excluding villages)**

The rural valleys can be broadly described as the areas west of the coastal range including, the Cobargo, Quamma and Brogo areas in the north, Bega, Bemboka, Candelo and Wolumla areas in the centre of the Shire and the Wyndham, Towamba and Rocky Halls rural areas in the south of the Shire.

In all these areas the existing Rural Zonings were essentially rolled over into the new RU1 – Primary Production zone or RU2 – Rural General Zone. The RU2 zone was mainly applied to the forested foothills running up from the cleared farmlands into the escarpments, National Park and State Forest. The only exceptions were the application of an E3 – Environmental Management Zone to important environmental corridors.

## **The Coastal Catchments**

For the purposes of the development LEP (2010) the coastal catchments include all areas to the east of the coastal range, the catchments of the small coastal estuaries (e.g. Cuttagee, Middle Lake and Wallagoot) or immediate catchments of our larger estuarine systems (Wallaga Lake, Bega River, Towamba River).

Our coastal area is arguably the Shires greatest natural asset. Encompassing over 1/8 of the States coastline, our coastline is 225km long, has 29 estuaries and 101 ocean beaches. Five of the Shires six major settlements occur along the coast and 50% of the Shires population lives within 1.5km of the coast. Forty five percent of the Shires population lives adjacent to only ten percent of our coastline.

This population concentration, when combined with seasonal tourist and local visitor usage, places pressure on our coastal environment, that will have to be carefully managed into the future to ensure one of our premier “natural advantages” is protected.

Lands currently zoned 1(a) in the coastal catchments have generally been zoned RU2 – Rural General Zone or E3 – Environmental Management, used for rural land within coastal catchment areas depending on environmental values. Land containing important environmental values (catchment protection or vegetation) with high levels of fragmentation of ownership have been proposed to be zoned E3. Importantly the E3 zoning still allows for ‘Extensive Agriculture’ as a permitted use.

Council has attempted to identify existing operating farms within the coastal catchments and has applied a RU(2) Rural General Zone to these areas.

## **Estuary Management**

There is a great diversity of estuary types represented within Bega Valley Shire; ranging from large riverine estuaries (Bega & Bermagui Rivers), large coastal lakes (Wallaga, Merimbula and Pambula lakes) and small ICOLL's ( Baragoot Lake, Middle Lake and Bournda Lagoon).

There is also variance in the currently level of protection afforded to the estuaries through a combination of tenure and land use planning ranging from Nadgee Lake in the Nadgee Wilderness area, through to heavily urbanised estuaries such as Merimbula Lake and Lake Curalo with little public land in the immediate catchment. Whilst the majority of our estuaries are currently in a reasonably healthy state, they remain vulnerable to physical, chemical and biological decline through inappropriate land-use and catchment management.

To underscore the economic importance of estuarine ecosystems, a recent study of Merimbula Lake and its catchment found that their natural values are worth some 34 million dollars to the local economy.

Bega Valley Shire Council has recognised the value of its estuaries and has had an estuary management program in place for over a decade. In that time Council has embarked on the development of formal estuary management plans for:

Merimbula and Back Lakes	<i>Completed</i>
Wallaga Lake	<i>Completed - reviewed</i>
Lake Curalo	<i>completed</i>
Wonboyn Lake	<i>completed</i>
Bega River	<i>Draft plan on exhibition</i>
Pambula Lake	<i>Initial stages of EMP program</i>

Council in partnership with the SRCMA and DECC is also currently examining ways to best manage and protect the many estuaries that are not part of the formal Estuary Management Planning process, to ensure that all our estuarine assets and their individual values are recognised and conserved.

The Comprehensive LEP provides Council the opportunity to build on the body of work undertaken through the EMP program and other agencies such as the Healthy Rivers Commission, DECC, DPI and SRCMA. The LEP process should ensure that the many values of the estuaries are protected, whilst allowing existing sustainable use of the estuaries and adjoining catchment areas to continue.

### **Appropriateness of Current Foreshore Zoning**

The majority of the current zonings have been in place since 1987. Our understanding of the natural functioning of estuaries and the community's appreciation of them has increased dramatically over the last 20 years and as such it is fair to say that many existing zonings adjacent to estuaries are no longer appropriate.

The previous LEP attempted to provide some protection to sections of foreshore through the use of a 7(b) Foreshore Protection zone. However the application of this zone did not necessarily represent an appropriate riparian buffer (to achieve bank stability, water quality improvement or provide habitat). Nor did these zones accommodate the extent of existing riparian or wetland ecosystems. Further, in some areas the lack of an appropriate zoning of the land beyond the foreshore zone resulted in poor management of tributaries, drainage lines and stormwater meaning that what was achieved through the 7(b) zone was arguably compromised by the quality of water and sediments entering the estuaries from catchment sources.

Over coming years our estuaries will continue to face growing pressures from greater recreational usage, increasing resource extraction (physical and biological), continued population growth in the catchments and the predicted impacts of climate change.

## Climate Change

Climate change is predicted to have physical, chemical and ecological impacts on estuaries through e.g.; changes in rainfall patterns, drought frequency, temperature and mean sea level. More specific effects could include changes in species composition, loss of fringing habitats as water levels increase, changes in entrance behaviour, reduced stream inflow impacting water quality and inundation of private and public property and assets.

Given that predictions of climate change are being refined, it is wise to take a precautionary principal approach as recommended by the NSW Coastal Policy and enshrined in the NSW EP&A Act. With regard to the LEP and foreshore zonings, the precautionary principal approach is best implemented by the use of substantial foreshore protected area, to provide

- an effective foreshore buffer
- functional ecosystems
- allow for the natural fluctuations in water levels associated with ICOLLS
- allow for the migration of fringing vegetation communities
- buffer private property /assets from future coastal hazards associated with climate change.

For many years there has been a recognition of flood hazards and the use of 1/100yr flood lines to restrict development in these areas. However this process has not been rigorously applied in the coastal zone, including the estuaries (and surrounding communities), which potentially face the three pronged assault from normal flooding on top of climate change induced sea level rise and storm surge in some cases.

As the modelling and studies required to identify coastal hazards are expensive or resource intensive, they may not be completed for sometime. As such it is important to adopt a precautionary approach to ensure public safety, protection of assets and minimise Council's (and by extrapolation the community's) liabilities that may arise through the development approval process.

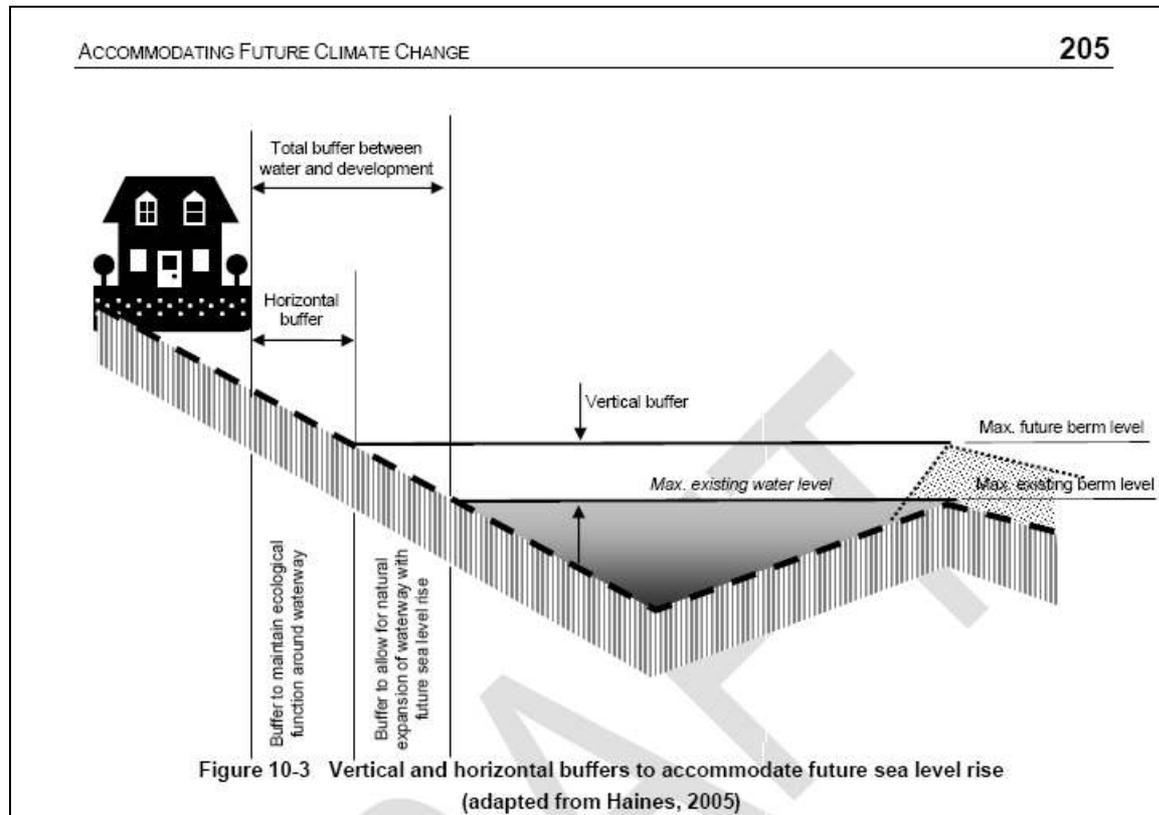
In urban areas such as Merimbula, Eden, Bermagui and Wallaga Lake, Council may have to look at the delineation of a coastal hazard line or zone and either prohibit / restrict development in these areas or require the applicant to undertake appropriate coastal hazard studies. This may be best achieved through a future amendment to the Development Control Plan.

## Application of the E2 Zone to Estuarine Foreshores

The new LEP template removes the old 7(b) Foreshore Protection zoning as an option and instead provides a number of Environmental or 'E' zonings. Bega Valley Shire Council has decided that the E2 Environment Protection Zone is the most appropriate zoning for estuary foreshore areas.

The application of substantial E2 zones around undeveloped sections of estuaries is relatively straight forward, particularly in areas that still have substantial native vegetation remaining. However in areas where there are existing assets, industry (oyster processing) or other non intensive land uses, this may be a little more problematic. It has been suggested that this issue could be addressed through the use of an existing use clause.

In non-urban estuary areas (outside of the National Park estate) it is recommended a E2 zone of 80 -100m be applied, measured form the 3m AHD contour. This is in line with recommendations of Haines (2005 *Coastal Lake Management*) and DECC (2008 *submission to Council*). Haines suggests that it is vital to consider both the vertical and horizontal components of the foreshore buffer, when determining appropriate setbacks. The vertical buffer accommodates the natural variability in ICOLL 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.



For NSW ICOLLS Haines suggests a vertical buffer of 3.5m, with a horizontal buffer measured from this point. For permanently open estuaries such as Merimbula and Pambula Lakes and the Bermagui River this situation differs somewhat. However when taking a precautionary approach, the use of this figure is seen as appropriate due to the potential impacts of flooding and storm surge as mentioned earlier.

Council has acquired a digital survey of the majority of its coastal zone. This survey will allow the accurate modelling of the current variability of inundation that occurs around the various estuaries as well as that predicted to occur with climate change. The survey will also provide Council with an understanding of the current location and extent of riparian vegetation and estuarine vegetation communities as well as private assets.

Due to the number of estuaries and length of foreshore and paucity of current data, it has not been practical to accurately plot the extent of estuarine communities in most areas. Whilst some of the proposed E2 zones require only a straight conversion from the existing 7(b) zoning it is recommended that during the exhibition of the LEP, that Council staff in association with expert staff from DECC and the SRCMA, carry out further detailed surveys of the estuarine foreshore areas..

It is recommended that the draft LEP proceed with the 80-100m foreshore E2 zone as discussed in this paper, with the view to further accurate delineation occurring.

The preservation of the estuaries natural, social and economic values is of the utmost importance to Council and the LEP is seen as Councils primary tool in achieving this outcome. To compliment the foreshore zonings Council is proposing that the immediate catchments (non-urban) should be zoned RU2 Rural Landscape, E3 Environmental Management or E4 Environmental Living. The new LEP template also requires the zoning of waterways as either W1 Natural, W2 Recreational or W3 Working. Council is proposing to zone the vast majority of the estuaries as W1, with smaller sections of W2 and W3 where appropriate.

These catchment and waterway zonings in combination with the use of riparian buffers throughout the wider catchment areas are seen as significant and practical steps in achieving the protection of our estuaries.

The LEP in isolation cannot guarantee the ongoing protection and health of the Shires estuaries. However it does provide a meaningful basis and clearly sends the message to the wider community that Council value highly the Shire estuaries and inherent resources and wish to see them protected for future generations.