

# **Taking the Plunge: *Towards a proactive joined up planning process for coastal management***

**Darryl Low Choy**

Urban Research Program

The Griffith School of Environment, Griffith University

## **ABSTRACT**

The Australian coastal zone, Queensland in particular, is experiencing increasing pressures from a number of global, national, regional and local drivers of change. Consequently, these highly dynamic and constantly evolving coastal landscapes are becoming increasingly characterised by higher degrees of complexity which require management through proactive planning.

Management responses need to address the complexity of urbanisation and peri-urbanisation processes, evolving community expectations, future trends in outdoor recreation and coastal tourism, the range of threats to natural resources in the environmentally sensitive coastal areas and the increasing competition for limited coastal resources.

This paper will outline current thinking on integrated (joined up) planning approaches to address complex coastal landscape management in a proactive manner. The paper will be supported by examples of outcomes from current research into peri-urbanisation in high growth coastal regions and the evolving role of local government in regional coastal NRM.

## **INTRODUCTION**

Regional landscapes beyond the urban footprints of our cities and metropolitan centres have recently come under increasing attention from planners, policy makers and politicians. Concern has focussed on the highly sought-after amenity landscapes such as the coastal zone. These areas have been the subject of intense and popular development as living landscapes designed to exploit the landscapes favourable environmental and liveability attributes.

These popular landscapes continue to experience increasing pressures from a number of global, national, regional and local drivers of change leading to the peri-urbanisation of former non-urban lands. Porter and Salvesen, (1995) note the problem has been heightened where rapidly developing areas coincided with environmentally sensitive areas (ESAs), usually in association with water bodies, becoming particularly acute in wetlands, riparian zones, and coastal zones. This has particularly been the case along the Queensland coast.

Consequently, these highly dynamic and constantly evolving coastal landscapes are becoming increasingly characterised by higher degrees of fragmentation and management complexity. However, it is becoming apparent that traditional urban planning and growth management approaches may not be capable of providing the necessary responses to safeguard the special and often unique attributes of these environmentally sensitive landscapes.

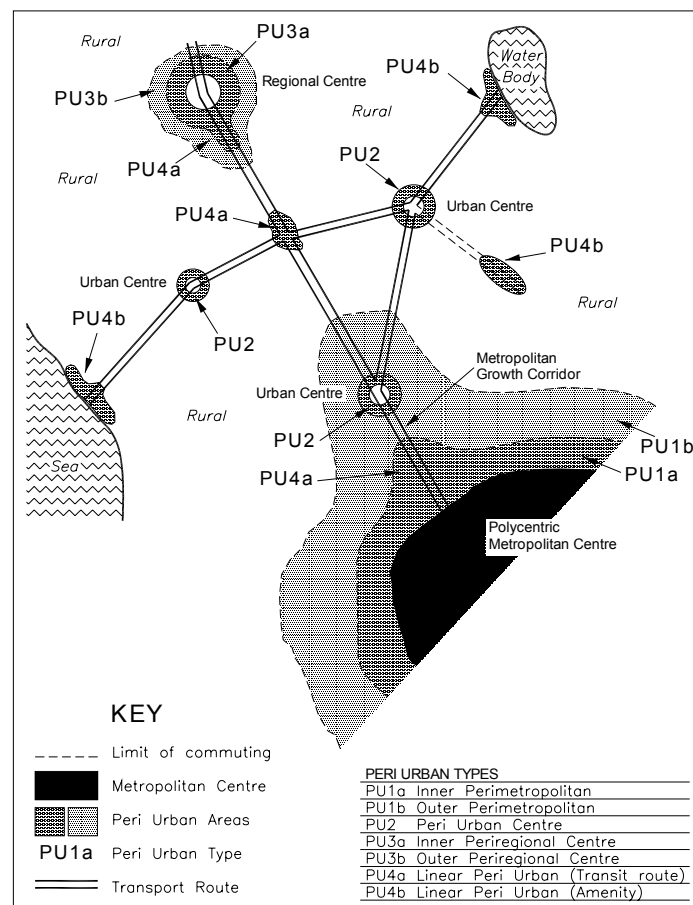
This paper questions whether our current and quite separate planning arrangements are capable of adequately addressing the range of NRM issues confronting coastal locations undergoing peri-urbanisation.

## THE PERI-URBANISATION PROCESS

Peri-urbanisation is a dynamic urbanising process that can involve the closer subdivision, fragmentation and land use conversation of former rural lands. It involves high levels of non metropolitan growth and results in a blurred transitional zone comprised of temporary mixes of urban and rural activities and functions. The resulting peri-urban landscape will comprise a range of land use activities that exhibit a high degree of heterogeneity, continual change and conflicting values (Low Choy, 2006b, 2007).

If this phenomenon is seen as a process, then it can be related to a number of spatial contexts, many of which will not always be associated with the fringes of metropolitan centres. Hence peri-urbanisation and its distinguishing attributes can also be recognised in a range of urban and non-urban settings outside of more familiar and reported perimetropolitan regions.

Recent research has recognised that peri-urbanisation does occur across a range of metropolitan and non metropolitan landscape settings including: adjacent to a metropolitan centre; adjacent to a (non metropolitan) regional centre; adjacent to an urban centre within the commuter hinterland of a metropolitan centre; adjacent to an urban centre within the rural landscape; or linear contexts along growth corridors, transit routes or amenity landscape settings. Hence it is possible to refine the nature of traditional peri-urbanisation and identify a comprehensive typology of contemporary relevance. This multi-setting typology is illustrated in Figure 1.



Source: Low Choy, (2007)

Figure 1: Peri-Urban Typologies

The typology acknowledges the traditional inner and outer perimetropolitan zones commonly associated with polycentric or multi-centric metropolitan centres which in fact are comprised of a random and confusing mix of land uses with urban and rural activities coexisting without apparent order. Peri-urbanisation can also be associated with urban centres that lie within the commuting zone of a metropolitan centre where these peri-urban areas and their urban centre can both share a relationship (economic, employment, social, cultural etc) with the nearby metropolitan centre.

Peri-urbanisation can occur in the vicinity of non metropolitan regional centres where the urbanising processes have overspilled the regional centre's boundary into its surrounding rural hinterland. Likewise, peri-urbanisation can also be distinguished in relation to small discrete urban centres within rural areas well separated from the influences of larger urban and metropolitan centres.

The fourth peri-urban type is usually of a linear nature commonly associated with transit routes, growth corridors or landscape settings favoured for amenity/residential purposes (eg ridge lines, watercourses, coastlines).

A range of diverse residential types including rural residential, hobby farms and lifestyle properties have been associated with the populating peri-urbanisation process. One distinguishing and common characteristic is that none of the new owners/occupants of these properties will use them as a commercial agricultural enterprise that becomes their primary source of income. However, in this mix of temporary land uses, commercial agriculture may still be occurring. This mix of urban oriented and traditional rural activities is often characterised by conflicting values and social disharmony.

The typology recognises that peri-urbanisation can occur across a range of landscape settings including the coastal zone as well as inland regions. Its principal attributes, whilst defining its distinctive character, also present a complex set of management challenges. They include:

- it is a dynamic zone undergoing constant and rapid change;
- its growth can be related to the growth of nearby metropolitan/urban centres;
- a growing population often dependent on the nearby metropolitan/urban centre for employment, cultural, social and recreational needs;
- an area in transition dominated by the temporary nature of land uses;
- low to ultra low housing densities;
- a heterogeneous population;
- an increasing diverse range of heterogeneous and conflicting rural and urban land uses;
- an increasingly fragmented landscape;
- a location often within the sphere of influence of adjacent urban centres;
- a poorly planned and managed landscape;
- highly contested activities and values; and
- an increasingly illegible landscape character.

The challenge for planners and policy makers working at the heart of these rapidly evolving peri-urban dynamics is to derive appropriate measures to manage change in a confusing milieu of land uses, values and aspirations which bear little resemblance to past circumstances in which planning has been applied. Thus an integrated institutional and management response which can address the range of emergent peri-urban environmental and natural resource management challenges needs to be established.

## **A FRAGMENTED INSTITUTIONAL & MANAGEMENT RESPONSE**

The continental land-water interface of the coastal zone includes important environmentally sensitive areas (ESAs) that require appropriate management across a range of environmental and natural resource management values to ensure the continued functioning of these coastal ecosystems.

However, it is still commonplace to encounter historical management arrangements that have been socially derived where the resulting management units are clearly for administrative convenience and bear no resemblance to natural landscape systems such as river catchments or coastal ecosystems. Knight and Landres (1998: 1) note “administrative boundaries almost always fragment a landscape, disrupting the ebb and flow of individuals and ecosystem processes”.

This division of the landscape along arbitrary lines will commonly use the landscape’s main geomorphologic structural features, such as high and low banks (water levels), and/or cadastral boundaries of properties and/or the underlying land tenure system and ownership patterns. It involves the assignment of artificial spatial units to separate agencies (including local government) for their governance, planning and management. This situation is well exemplified in regard to the management arrangements for the Queensland coastal environment.

This highly compartmentalised and fragmented set of spatial, thematic governance arrangements where landscape management is dominated by singular approaches to resource use assessments and allocations, and isolated policy development for singular issues provides serious challenges for those seeking an integrated, uniform and consistent set of guidance, policy determination, or use approval procedures. The achievement of these objectives is further hampered by the plethora of policies, legalisation, regulations and administrative approvals process and procedures that have been subsequently developed in isolation, within each separate administrative authority for its own respective area of responsibility (Low Choy, 2003).

The management challenges that arise from these arrangements involve an overly complicated system where confusion of responsibilities results from the overlap, duplication and unclear decision making procedures involving several state agencies and a number of local governments (with delegated statutory planning responsibility) operating in the same geographical space.

This fragmented arrangement of separate responsibilities often leads to the jealous defence of ‘territory’ by the individual resource management agencies and does not readily facilitate an effective and integrated, nor cooperative approach to the management of these contested landscapes. This is further complicated if there is no effective coordinated whole-of-government approach and an absence of effective integrating mechanisms.

Under these circumstances holistic management becomes highly problematic and this complex situation becomes a recipe for uncertainty and conflict. Thus, the achievement of a whole-of-landscape planning and management arrangement for the coastal region revolves to a large extent around achieving an integrated approach that links all currently stand-alone planning and management systems that have the major bearing on the state and health of the coastal zone. This would embrace individual local authority statutory planning schemes, the various plans and policies of state agencies exercising managerial responsibility within the coastal zone and the emergent regional NRM arrangements.

## PERI-URBAN ENVIRONMENTAL & NRM CHALLENGES

The significant natural resource management (NRM) issues of regional significance that arise through the peri-urbanisation of coastal areas are highlighted in Table 1.

**Table 1: Major Regional NRM Issues in a Peri-urbanising Coastal Zone**

Major regional NRM Issues of Interest in the Coastal Zone	Peri-urban connection
biodiversity including the protection of regionally significant ecosystems	√
waterways health and water quality	√
soil decline and salinity	√
landscape amenity and appreciation	√
pest management (plants and animals)	√
climate (particularly greenhouse, climate change and air quality)	√
agricultural systems (including the protection of good quality land)	√
urban systems (land development; waste disposal, urban stormwater)	√

The response to date, across all Australian states, has been the establishment of new regional or catchment based institutional arrangements for NRM, involving separate, regional scale, (non-statutory) planning processes. Consequently, in most states there are now two distinct and separate regional planning processes in operation – one addressing NRM and a second, usually the pre-eminent planning system that deals with spatial land use matters, increasingly in a statutory context.

### IMPERATIVES FOR A NEW APPROACH

In the light of the foregoing experience, there is an increasing acceptance that these contemporary environmental and natural resource management challenges, especially those of the coastal zone, are of regional extent and consequently need to be addressed on a regional basis in an integrated manner. This realisation directly challenges the status quo which is characterised by the fragmented approaches previously discussed. Additionally, traditional planning has largely had a single purpose focus and was not underpinned by sound environmental principles.

Low Choy (2006a) has noted that decision-making for natural resource management has been largely informed by fragmented and incremental planning that has resulted in “the death of our precious coasts by a thousand small and isolated decisions”. He summarised the principal issues that need to be addressed for the integration of NRM issues with existing planning processes as including:

1. **Spatial scale:** NRM issues are best exemplified at regional and local scales and their planning and management should be operationalised at these scales;
2. **Temporal scale:** statutory planning is dominated by short term (political) timeframes and often lacks an overarching strategic focus;
3. **Management boundaries:** planning and management is typically undertaken along artificial boundaries of administrative convenience;
4. **Multi-discipline:** improved collaboration is limited by constraining legislation and a lack of cross discipline and cross boundary approaches;
5. **Environmental focus:** principles of ESD and sustainability are not well operationalised in planning processes especially statutory planning;
6. **Infrastructure planning:** this is not well developed nor connected to mainstream land use and environmental planning processes;
7. **Community engagement:** limited engagement and involvement in decision-making; and

8. **Integration:** separate uncoordinated planning systems result in an undeveloped interface between local government planning and other planning activities.

There is growing acknowledgement that environmental management will increasingly enter the core business of local government evidence by the recent and continuing widening of its environmental and natural resource management roles (either as a regulator or an operator). This range of roles includes: biodiversity and native ecosystem conservation including vegetation management on private lands; parks and open space; weed and feral animal control, fire, flood and other disaster risks; transport and service corridors; energy and water supply; environmental and visual amenity; selected aspects of coastal management avenues and environmental legislation and policy (Hooper, McDonald and Mitchell, 1999; Wild River, 2003).

## **TOWARDS 'JOINED-UP' PLANNING**

The previous discussion highlights the imperative to improve horizontal coordination between the planning and management activities of local authorities and the vertical collaboration between local government, various regional initiatives and state government. The principal initiatives required to produce a 'joined-up' planning arrangement within the coastal zone include:

1. **An Integrated Planning Framework:** management activities should be directed by a strategic planning focus with regional coverage. Figure 2 provides a roadmap to 'joined-up' planning and defines the linkage between the main planning initiatives set within a strategic framework for a typical coastal region. This involves a combination of statutory and non-statutory planning approaches. The framework acknowledges the need to accommodate the embedment of the NRM Plan (wholly or partially) into the pre-eminent (statutory) Regional Plan. The minimum degree of integration should extend to the NRM Plan's Aspirational and Resource Condition Targets. The framework links to all local government planning endeavours of corporate, statutory and operational planning. This combination of local government planning, (identified in the highlighted box of Figure 2), can be repeated for all local authorities participating in the regional collaborative arrangements.
2. **A Renegotiated Roadmap:** Figure 2 highlights the pathways through the maze of planning and management processes, and practices. The pathways illustrate how the outcomes from one level of planning activity (eg NRM science) should flow to other levels, particularly, into the local government planning activities. However, it cannot be assumed that agreed plans will automatically be implemented as originally intended. Continued regional level collaborations involving local government will be subjected to a series of renegotiations throughout the implementation phase (Low Choy & Maccheroni, 2005). Hence, successful collaborative planning must recognise a number of points of renegotiation and utilise these opportunities to seek continual improvements to implementation. Figure 2 suggests where these points of renegotiations between regional planning initiatives and Local Government should occur. It has also been shown that successful implementation requires that implementation agents such as local government should also be involved in the policy/plan development phase (Low Choy & Maccheroni, 2005).
3. **Integrated Infrastructure Planning:** in this framework, infrastructure planning is completed alongside conventional land use and environmental planning. It is linked to both strategic intents and specific policy commitments and requirements. The framework provides for the establishment of necessary links between the principal infrastructure providers at State, regional and local levels.

4. **Environmental Infrastructure:** if coastal environments are to be sustained and residents' desired quality of life expectations met, then local government's traditional role in the provision of physical and social infrastructure (shared with other levels of government) should be extended to formally include environmental infrastructure. Whilst 'green infrastructure' has been used to refer to the whole regional landscape inclusive of open space, 'environmental infrastructure' refers to those nature-based elements that should and could be planned for in the same manner that traditional hard (physical) and soft (social and community) infrastructure are planned and provided in order to support a community. Once secured, these elements of environmental infrastructure would contribute to the green infrastructure of the region. In this manner the achievement of the regional community's vision of sustainability and liveability becomes closer to reality as all of the essential elements of infrastructural support have now been proactively addressed (Low Choy, 2005).

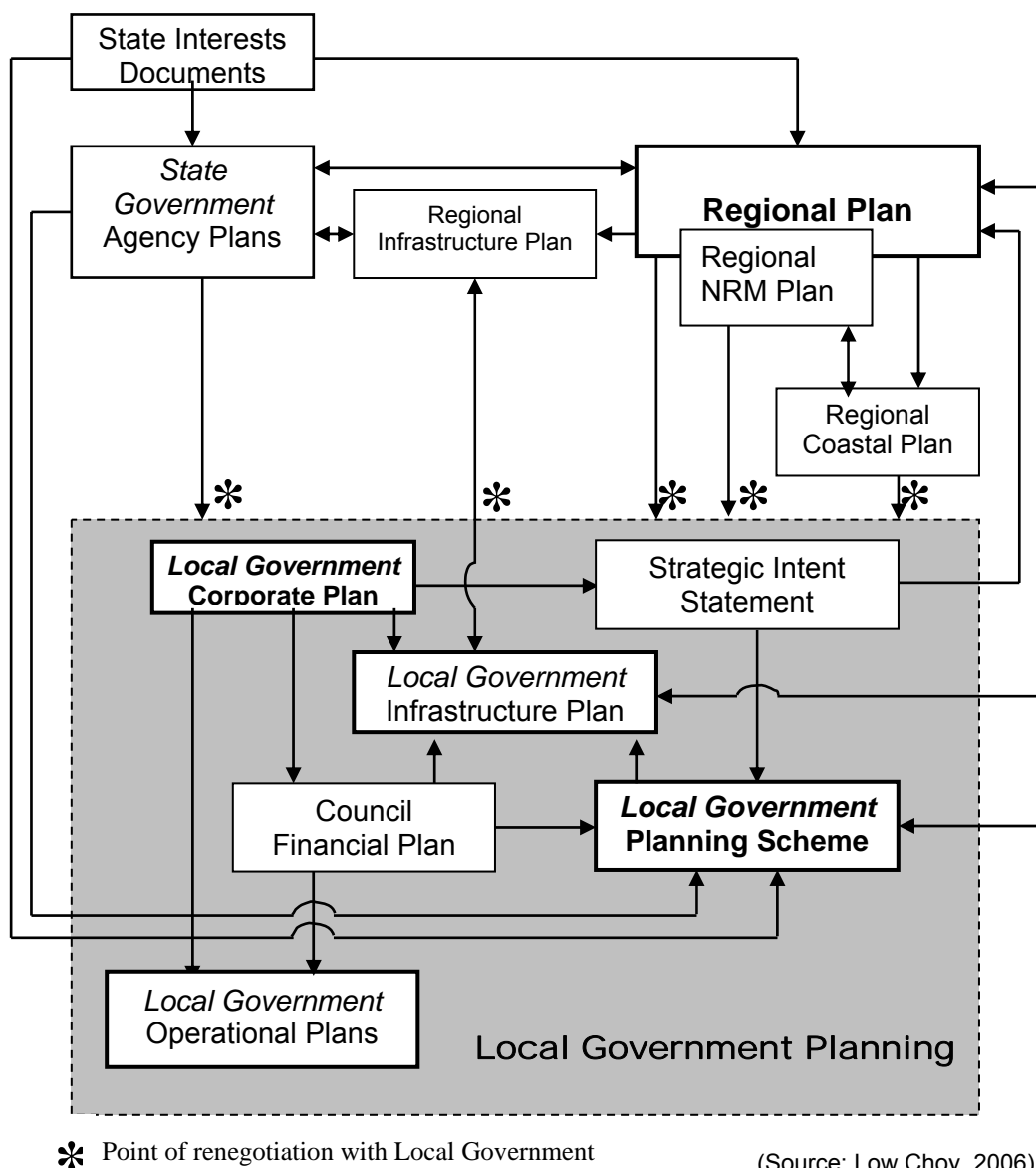


Figure 2: An Integrated Planning Framework for a typical Coastal Region

## CONCLUSIONS

This paper has reported on current research into the peri-urban phenomenon and its relevance to the ongoing rapid population growth of our coastal regions. It has argued that a region's landscape and NRM values are put at risk and consequently, the region's environmental sustainability and the community's Quality of Life and standards of liveability are also threatened.

It argues that it is problematic if the conventional planning approaches currently utilised by regional planning agencies and local government have the capability or the capacity to comprehensively address the contemporary challenges confronting peri-urbanising coastal regions, let alone safeguard regional coastal landscape and NRM values at risk in these rapidly changing regions. In the light of the identified deficiencies, the argument is made for the adoption of a "joined-up" planning approach capable of integrating all of the principal statutory and non-statutory state, regional and local scale planning initiatives operating within a coastal region. To this end an integrating framework for 'joined-up' planning has been advanced.

The move towards a proactive and 'joined up' planning process for coastal management requires the principal agents responsible for planning and management to: **Take the Plunge**.

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