Planning for the Western Coast
Power dictates
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…the long line of ocean frontage within a few miles of the heart of our city…is a …God-given gift which should inspire us to flights of imagination as to the future (Boas et al. 1930:94)

Abstract: The extent to which coastal management policy promulgated by the Western Australian State Government has led to changes in coastal land use since formulation of the first coastal management guidelines in the 1970s is examined. Changes in coastal land use have been mapped from the annual metropolitan road directories from 1970 to 2006. The time series obtained has been interpreted in the context of declared changes in coastal policy initiatives by the State Government to establish the impact of policy on planning and management. The area under consideration is a 300 metre zone extending landwards from the shoreline identified on the State Coastal Planning maps.

The mapped changes in land use indicate that coastal policy has influenced coastal land use, although the implementation of land use change has within both the eighties and current years been driven more by powerful externalities than the immediate policy process.

Introduction
In Australia, developing urban growth is leading to the suburbanisation of the coastal rim with 86% of the population living along the coast (Salt 2005). The rate of growth in the coastal areas in Western Australia is 60% higher than the national average although a much smaller proportion is located close to active shore (Johnson 2005). In Perth, where the coast is the western platform to the Australian continent, the State Government is reassessing its overall planning policies for the coastal regions (WAPC 2004).

The aim of this paper is to determine how the State Government’s coastal policy has led to changes in urban coastal land use, since the gazetting of the Metropolitan Region Scheme (MRS) of 1963 and particularly since the formulation of the first coastal management guidelines in the 1970s. The research involved the identification of human-made and designed changes to the coast, with a focus on the 300 metre zone extending landward from the shoreline. This 300 metre area is both the area which receives and continues to receive most human pressure and is the distance set by the Amendment to the State Coastal Planning Policy, State Planning Policy (SPP) 2.6 of 2006. Changes to the coast were examined as an historical overview and by mapping variables over a thirty six year period at beach locations from Port Beach, Fremantle to the hamlet of Two Rocks. The time series acted as an overview of change and directed further investigation to understand whether policy or externalities were behind land use documentation differences within this 36 year period.

Development of Perth Planning and Coastal Policy
The squattocracy of Irish Protestantism, which escaped the emancipation of Catholicism in Ireland in 1829, predominated in the development of a rectangular grid on the banks of the Swan River 15 kms inland from the ocean. The town was protected against possible European invasion being shadowed by the western slope of Mt Eliza, north bounded by swamps and marshes with the Swan River expanse to the south east (Morel 2006). The gold rush migration of the 1890’s led to significant change, the population of Perth rose from 6000 to 87,000 inhabitants by 1911 (Seddon & Ravine 1986). The municipal character of Perth and its outer suburbs expanded from a linear settlement along the 1881 rail link to a town undertaking a major subdivision establishment with the passage through Parliament of the Perth Endowment Lands Trust (1920). This was a coastal suburbanisation project of the garden city movement seaside suburbs of City Beach and Floreat Park. The municipal planning of Perth was led by the Town Clerk, WE Bold, who was also the pivotal figure in the passage of Australia’s first Town Planning Act, passed by the Western Australian Parliament in 1928 (Stannage 1979). As part of the planning review process, resulting in the gazettal of the Town Planning Act, Harold Boas (Perth Town Councillor), Carl Klem (Garden City Movement Architect) and others provided a comprehensive outline for the planning of the Perth metropolitan area (Boas et al. 1930). The reservation of coastal land for all to enjoy was a major recommendation, which was to reappear in future documents including the Stephenson Hepburn Plan in 1955 when the population was 380,000. The Corridor Plan of linear urban expansion in 1970 was driven in part by the emerging mining industry, resulting in the population jumping to 627,000 which by 1975 was a further 100, 000. The
recent Network City Action Plan, promoting high density nodal development estimates the inhabitants of Perth will rise to 2.4M in 2030 from 1.4M today. All of these plans and strategies have recommended proposals for the coastal boundary however it was not until the 1970s that the development of coast land was integrated within the planning process.

Over the last twenty years the Government has been advocating a more compact urban form by widening the corridors and increasing residential densities by an urban consolidation program (Stokes & Hill 1992). Concerted efforts to further reduce subdivision plot sizes and to consolidate development in current urban areas is being proposed (DPI 2005). The emphasis in the latest concept is that residential high density nodes will be incorporated into established areas along the coast to accommodate future generations. These nodes of development may impact on current foreshore reserves and coastal setback process margins (City of Stirling 1984).

What has led to this change for coastal land use?

The First WA Coastal Management Plan (1970s)
Prior to the seventies, the coastal foreshore was a region of unmanaged facilities and in the outer metropolitan area, squatter’s shacks were present. The Local Government authorities had accepted their responsibilities to manage infrastructure such as toilets, change rooms and car park access on the foreshore, and would respond to local issues and environmental protection when the need arose (City of Stirling 1984), however there was no coordinated State effort. In 1971, the year the Environmental Protection Act was passed, the concept of a coastal zone ‘worthy of heightened management efforts’ was introduced in a review of the Mining Act with the recommendation that all Crown land and reserves in the coastal strip be declared ‘C’ Class reserves to a half mile (500 metres) limit of coastline (EPA 1971:10; O’Brien 2006). In its yearly review in 1973, the Environmental Protection Authority (EPA) endorsed the ‘principle of conservation of a nominal half-mile strip of coastal reserve, including management of public access to the beaches of much of the coastline of Western Australia’ (EPA 1973:12). An intergovernmental report recommended that beaches and foreshore should remain in public ownership adding that there should be considerably more research undertaken to understand the workings of the coast and the Review highlighted the need for an integrated State approach to coastal management (Department of Town Planning 1974).

During this period, the overall planning of Perth was reviewed with the Corridor Plan proposed in 1970 (Stokes & Hill 1992). The combined effort of increasing car ownership and the decline in the importance of the inner city population led to the spread of the metropolitan population over a much wider area (Webb 1973). The framework proposing the containment of urban sprawl within four corridors of development was opposed particularly by a ‘maverick’ local planner, Paul Ritter, who proposed an alternative directional grid pattern of development (Ritter 1972). The land use in the coastal domain became regulated and squatters shacks and residential nodes were advised to be removed to ensure the ‘foreshore land be protected and managed for the community as a whole’ (EPA 1976:52). The northern finger of the Corridor Plan (Sorrento to Yanchep/Two Rocks) was further assessed providing more detail for future development pressures (MRPA 1977).

The Coastal Zone Environmental Policy Steering Committee was formed in 1976. This met over the next four years to review the EPA draft Guidelines for an Environment Protection Policy on the Coastal Zone in WA (SRO 1985). The group was drawn from senior staff (principally Directors) across the Public Works Department, The Museum, Agriculture, Water, Town Planning, Resource Development and Department of Conservation and Environment (DCE) (SRO 1985). From within this group would evolve the decision to employ a coastal planner, initially a worldwide search, but returning to a local geographer, Mr Graeme Sansom. In 1980, Sansom was to produce the first Coastal Management Plan. As a result of these recommendations the first Coastal Management Coordinating Committee (CMCC) was formed in 1982 in the DCE and under its auspices non-statutory coastal management plans were prepared for local and regional coastline (Donaldson et al.1995).

Coastal Management moves from Environment to Planning
The coastal management plans were actioned in a growing environment of instability in the ranks of senior public service personnel. Brian Burke’s Labor Government in 1983, reassessed the public service resulting in senior heads of departments being replaced by less experienced, more junior administrators (Porter 2004). Within this flux, the EPA Director was sidelined (although still heading Department of Conservation and Environment) and replaced by an incumbent from the private sector (Porter 2004). The CMCC completed a detailed government position paper in October 1983 which set out 10 policies adopted by the new Labor cabinet, including the proposal that future coastal residential development be located in nodes (as opposed to strip development) and reiterated the
removal of haphazard squatter shack developments (EPA 1984). An internal review of this committee listed it producing 17 management plans between 1983-1985 (Donaldson et al. 1995). The review resulted in the transfer of the CMCC to the State Planning Commission with the directive to advise the Government of coastal issues and provide advice. The disbandment of the Coastal Development Committee (1975-1987) which had been providing specialist advice on coastal statutory planning, in the Town Planning Department, followed this decision (Donaldson et al. 1995). Coupled with the transfer of the CMCC was the eventual transfer of staff initially to the State Planning Commission but by 1994, the Commission had returned to a purely regulatory body and the Coastal Branch was amalgamated with other sections of Planning and Urban Development. The emphasis had moved from an environment and coastal engineering perspective to one of planning.

The planning of Perth was being reassessed (DPUD 1990; DPUD 1991). Although coastal node residential development had been recommended as early as 1983, the delivery of growth along the Corridor was being questioned (MRPA 1992). The importance of the road system had led to a further review resulting in Metropian in 1990 (DPUD 1990). In an endeavour to assess the performance of coastal management in Western Australia, the CMCC in conjunction with the Western Australian Local Government Association advised the State Planning Commission of the necessity for a review. A result of this was a paper by the then Liberal Minister Richard Lewis which proposed land use changes be conducted with an awareness of the appropriateness and capability of the coast to sustain such change particularly with expected variations in climate (WAPC 1996). One of the issues that was mooted as addressing the desire of people to live along the coast, was the suggested policy to permit ‘tall buildings and structures (above 12m) within coastal viewsheds on the coast …where they have been justified in the context of an approved policy or plan or designated in a town planning scheme’ (WAPC 1996:21). The mechanisms of review addressed by the Coastal Management Report had been politicised into a draft policy document by 1996. However, relevant to the coastal domain, was the Review’s recommendations to undertake a State Coastal Zone Management Strategy, to form Regional Coastal Management Working Groups and have a new Coastal Zone Management Council to integrate and review all coastal management supported by the Ministry for Planning. Also to ensure that coastal management plans were successful that financial support be provided from Consolidated Revenue, by a Coastal Zone Management Fund (Donaldson et al. 1995). Only the Council and Strategy would result.

During this phase, the Department of Planning and Urban Development, became the Ministry of Planning (1995) and in a review of costs, the coastal engineering expertise was reduced. This would go out to private consultants in the future.

**Integrated Coastal Zone Management and Review (1990 and beyond)**

In 1995, the Commonwealth Government initiated a study on the lack of integration across all governments and community bodies involved in coastal management. Following this, a Framework for Integrated Coastal Zone Management (ICZM) was endorsed in 2003, with a focus on ecological sustainable development (Natural Resource Management Ministerial Council 2003). In Perth, in 2001, with a change in Government, the Ministry for Planning amalgamated with the Transport Department to form the Department of Planning and Infrastructure under Minister MacTiernan. In this year the State proposed the Coastal Zone Management Policy, still in draft form, however a number of initiatives, such as the Coastal Planning and Coordination Council (CPCC) were implemented which replaced the CMCC. The CPCC was to ensure there was greater integration within the coastal management process and became a statutory review body reporting directly to the Western Australian Planning Commission. The recommendation of a consultative process, Network City: Perth Coastal Planning Strategy, was undertaken by community consultation in 2005, and again in 2007 (Bunton 2004; PCPSC 2006). This strategy was promoted to provide a planned and coordinated approach to management of the Perth coastline and to assist in implementing and refining the draft Coastal Zone Management Policy (vom Berg 2005; PCPSC 2006).

State Government initiatives have incorporated the concept of sustainability in the State Coastal Planning Policy SPP2.6 and in proposed coastal management legislation. The State Sustainability Strategy is the overriding document to ensure that sustainability principles are considered in both local government and the State policy arena.

In the State Coastal Planning Policy, the West Australian Government referred to coastal areas as the land mass being within 30 kilometres of the coast (WAPC 2003). In proceedings at the State Administrative Tribunal in 2006, coastal area was agreed as that distance which one can walk to the beach (The State Administrative Tribunal of Western Australia 2006). The State Government has
further defined the coast with the recent amendment to SPP2.6 which introduced into the planning code a 300 metre boundary for coastal structural height provisions (WAPC 2005).

**Land Use on the ‘Coastal Domain’**

Land use was documented for a study area landward 300 metres from the coastal shoreline (henceforth known as the coastal domain) extending for 70 kms from north of the Fremantle Port, Port Beach, to Two Rocks (Fig 1). The northern rim of the MRS was studied, as it is this coastline which has led development over the last thirty years and is still the most popular coastline for beachgoers (Blackweir & Beckley 2004).

Fig 1: Northern Coast Metropolitan Region Scheme

The beaches in the study area are exposed to wave action from Leighton (south of Cottesloe) to Trigg Point and Scarborough Beach is one of the few metropolitan beaches wave dominated (Stul 2004). Offshore reefs shelter the coast north of Trigg to Yanchep/Two Rocks leading to localised variation in exposure where there are gaps in these offshore reefs (Stul 2004).

Land use variables are documented from the Metropolitan Road Directory cadastral maps produced by the state government department, Landgate. The notion that metropolitan road directories can set the scene for a discourse on social attitudes to land use is possibly new, however, time series data is often used to gauge change over time, particularly in biological populations (Likens 1989). The metropolitan road directory allows a composite pattern of land use and in particular, the importance of
coastal resources and facilities (or indicators), over time. Data was collated over the last thirty six years, a period when the coast emerged from a largely uncoordinated planning approach to one regulated and integrated within the management of the land use.

Coastal landscapes are highly valued by Western Australians (WAPC 2004), however the social prominence of the coast is more a recent paradigm, than of 30 years ago. The metropolitan road directories illustrate the social perceptions and allow a study to be undertaken of what has been of significance to the people of Perth when they visit the coast. The series is restricted to the last thirty six years as prior to that the access to the sea and the enjoyment of seabathing was dependent upon public transport (Webb 1973).

When these land use variables are documented over time the importance of the coastal domain is shown to be a vibrant land use area of the last thirty years (Fig 2). Time series data from the metropolitan road directories is consolidated within three groups, Environmental changes (recognition of beach reservations, coastal bushland), Movement – human activities (walking paths, dual use paths, traffic lights etc) and Urban Beach Facilities which include variables such as toilets, restaurants and surf clubs (Table 1) and these are mapped within this 36 year period of investigation.

Table 1: Composite Table of Indicators

<table>
<thead>
<tr>
<th>Place to Live Movement</th>
<th>Place to Protect Environment</th>
<th>Place to Enjoy* Urban Beach Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roundabout</td>
<td>Jetty</td>
<td>Toilets</td>
</tr>
<tr>
<td>Hwy notation</td>
<td>Groyne</td>
<td>Surf Club</td>
</tr>
<tr>
<td>Car Park</td>
<td>Park/Rec/Oval</td>
<td>Patrolled Beach</td>
</tr>
<tr>
<td>Walking Path</td>
<td>Bushland</td>
<td>Telephone</td>
</tr>
<tr>
<td>Dual-Use Path</td>
<td>Beach Dunes as Urban Bushland</td>
<td>Boat Ramp</td>
</tr>
<tr>
<td>Cycle Path</td>
<td></td>
<td>Lookout</td>
</tr>
<tr>
<td>Underpass</td>
<td></td>
<td>Marina/Harbour</td>
</tr>
<tr>
<td>Picnic Area</td>
<td></td>
<td>Yacht Club</td>
</tr>
<tr>
<td>Dogs Allowed Beach</td>
<td></td>
<td>Hotel/Motel</td>
</tr>
<tr>
<td>Traffic Light near Beach</td>
<td></td>
<td>Post Office</td>
</tr>
<tr>
<td>Wheelchair Access Toilet</td>
<td></td>
<td>Service Station</td>
</tr>
<tr>
<td>Coast roads as secondary roads</td>
<td></td>
<td>Shopping Centre</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Caravan Park</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sewerage Outlet* removed from coast</td>
</tr>
</tbody>
</table>

The documentation of land use variables from metropolitan street directories provides a template of change on the metropolitan coastline in a period in which urban pressures and human movement...
have had increasing impact. The metropolitan street directory information does not provide detail which can be linked directly to policy and other government initiatives, however it provides an opportunity to map change in an era where continuity of records does not exist in the same sequential detail. These records provide a window of change. They are not anecdotal, they are factual and illustrate changing social perceptions of the beach and landscape in our society.

Discussion
Linking Policy Development & On Ground Application

The link between the land use time series and policy directives and strategies is shown to be tenuous. The benefit of the series was in the pattern of documentation, which directed study towards understanding these land use variations. The review of data allowed an understanding of where policy had an impact and where other externalities had led these changes.

Coastal policy commenced in an era where the reservation of land was managed in an ad hoc manner driven by local government’s responding to local issues and environmental damage. Local governments also responded to management strategies on the coastal reservation without reference to other localities, which often resulted in quite different management strategies. In the north, City Beach and Floreat, (in the City of Perth), border the City of Stirling which maintains a broad coastal reserve for its sandy beaches, whereas the City of Perth did not. This resulted in the loss of the Floreat Surf Club in the 1970s due to proximity to ocean swells and the undermining of the building (Stirling 1984). However, in the same context, the Esplanade, a road between Scarborough and Trigg disappeared by the 1970s, with its remnant at Trigg being lost to sand deposition until dune rehabilitation in the late 1980s.

The inter Government discernment of the 1970s led to a consolidation of endeavours. Departmental heads and university academics were in consultation together and this unilateral direction evolved a singularity of purpose which saw external protagonists excluded as planner Paul Ritter found in his endeavours to highlight an alternative to the Corridor Plan. Population drove the coastal corridor and by the mid seventies the northwest corridor of the metropolitan region, from Sorrento to Two Rocks had moved the city into what has been termed by Frost (1991) as a “new frontier” city (McManus 2005). The suburban pattern of low-density housing expanded across bulldozed heath land (McManus 2005, Farrellly 2004).

The documentation of the directories illustrates the planning process of this zone, with a lag time of less than a decade within the policy framework to the application of policy. In the early 1970s when the population of Perth was more compact and bush was more visible, policy was a regulatory driver to land use, policy decisions were implemented with no community consultation, although there was regular formal consultation between relevant heads of Department and industry leaders (O’Brien 2006). This was however to change. From the mid seventies the community were not satisfied with the State Government dictating coastal land use (Rushton1976).

The Whitfords Nodes saga began in 1969, when the State Government entered into an informal agreement with three companies owning land along the coast – a bushland expanse called Whitfords. The land would be rezoned ‘urban’, within which three areas were to be made available for residential development on the west side of the coast road. These were given in return for an extensive ‘twice the normal requirement’ coast reservation and the cadastral maps were amended to include these residential nodes (Rushton 1976). By 1976, the Government had set in train a resumption notice due to community and local authority opposition. In advising acquisition of these nodes, the Planning Minister’s advice was for the Government, LGA and local ratepayers to formulate a management plan which would ensure an ‘acceptable balance’ between the conservation of the foredunes and recreational development” (Rushton 1976). Land further inland at Pinnaroo was to be given to the LGA to fund the anticipated purchase price of the 3 nodes for $3.35M (Rushton 1976).

The negotiations would be protracted. The Central and Southern Whitfords Nodes were purchased by the Government by late 1986 and the Northern node was in the process of acquisition. The Treasury paid out $7.3M for the central node and in a letter to the Member for Whitfords, the then Planning Minister, Peter Dowding stated that “…the cost of purchase is high and because of the present budgetary constraints sufficient funds cannot be made available for the immediate acquisition of all parcels’ (Dowding 1984).

However, the financial markets offered opportunities that were drivers for change along the Perth northern coastline. Hillarys Boat Harbour, the first major marina in the north metropolitan region, was built just a kilometre from the coastal land that a decade of State Government negotiations had finally
resumed. The America’s Cup Defence was to be held along the Perth coast in 1987 and land for a marina was gazetted in September 1985. Bond Corporation would be defending the Cup and the pens were ready by the end of 1986 (WAPC 2004). This was not the only development to have a major impact on the coastline. An ex-Premier of WA was given money by Bond Corp. to bribe a number of City of Stirling Councillors to approve the Observation City development at Scarborough. This did not occur however the Premier in the same period received ‘donations that were quite extraordinary’ and the donation of $2.038M by Alan Bond was far in excess of all others (Kennedy et al 2000, 26-3). As early as 1982 Austmark, which were known to be ‘related to’ Bond Corp., proposed a high level development of 20 storeys on the Scarborough Beach front, a proposal that was eventually led by Bond Corp. to a successful completion in 1987 (Kennedy et al 2000, 23-8). The local authority, the City of Stirling indicated that although a ‘Special Beach Development Zone’ had been gazetted in 1974, height of buildings had not been detailed (Kennedy et al 2000, 23-9). The shift from government bureaucratic policy drivers to political players became a norm for not only coast development but elsewhere in the State until the 1987 stock market crash and subsequent financial exposures. The decade highlighted the impact of ad hoc deregulation on coastal land use and served as a teaser for development change in the new millennium. It was also a decade where the importance of the environmental link was severed and the WAPC took on a dual role of arbitrator and advisor of coastal land use.

The regulatory process of ensuring the coastal domain remain open and accessible continued to be reviewed and implemented in the local government coastal management plans. The Bond Corp. developments became an aberration rather than the norm. The nineties was a decade of consolidation although the level of governance was no longer clearly defined. The major report reviewing governance of the coastal zone, emphasised the inclusion of community participation on the coastal consultative committee and advocated the funding for local coastal activities (Donaldson et al. 1996). Local authorities became managers of coast care programs funded by State and Federal monies, dual use paths, wheelchair access and coastal set backs of at least 100metres were consolidated between local authorities. Coastal zone management had also moved from the local arena to a Federal environmental and climate change concern and partnerships were instigated between all levels of government.

Within the coastal policy proposals of the eighties and nineties was a generally unknown planning directive for urban nodal development on the coast. The coast is a central pivot of the Network City Strategy, a proposal of consolidating urban development, and in particular, high density nodes along the coastline (WAPC 2004). The policy proposals of 1996 which refer back to the position paper in 1983 (WAPC 1996) promoted nodal development. This policy coupled with Australian new urbanism ideals led to the emergence of the State Government promoting policy for beachfront developments that had traditionally been perceived as a local community’s rights. Coast community groups such as Save Our Sunset Coasts in Scarborough, Save Coogee against the Port Coogee Marina and Keep Cott Low at Cottesloe all became visible and vocal by 2003. The State Government introduced an amendment to the SPP2.6, which was passed in December 2006, supporting nodal high-density infrastructure development on the coastal zone, up to and including those developments to 300 metres from the shoreline. The City of Stirling, already requesting 12-15 storey developments in 2003 against community opposition, promoted the concept of height along the coast and with the introduction of the 5-8 storey limits, was quick to pass this with the mayor’s casting vote (City of Stirling 2006). The same agreement has not driven a number of other Councils who are currently battling with the Minister for Planning and Infrastructure, Alannah MacTiernan, to maintain 12 metre height limits along their coastlines.

Conclusion
The metropolitan road directories documentation provides a time series of land use in the coastal domain from 1970-2006. The documentation highlighted where the policy template has been either ignored or changed by illustrating major variations in land use. Coastal land use from the early 1970s to the implementation of local non statutory management plans to overall coastal strategy guidelines are shown to be the result of methodical policy implementation although major externalities of development and political expediency in both 1980 and from 2003, raise questions to the effectiveness of current methods of governance. Further the movement of coastal planning from the environmental domain to one of planning has isolated coastal policy from environmental interaction. Outstanding questions arise due to the omission of a governance mosaic that takes into consideration the cumulative impacts on coastal land use.

Perth has experienced incremental population increases over the last four decades. Coastal policy refers to the demands that will be placed upon the coastline in the future, however within the context
of current policy governance. Already there have been major departures from the bureaucratic led initiatives, both in the 1980s and now, which leads the question whether we have within our governance instrumentalitys the mosaic of interactions that drives clever decision-making progress.

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