



The Royal Australian
Institute of Architects

Infrastructure
Provision in
Coastal Growth
Areas

Submission to the
Standing Committee on
Public Works - Submission No 41

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SUBMISSION BY

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PURPOSE

- This submission is made by the NSW Chapter of the Royal Australian Institute of Architects (RAIA), to the Standing Committee on Public Works, in response to the “Call for Submissions” which accompanies an Inquiry into the Infrastructure Provision in Coastal Growth Areas.
- At the time of this submission the office bearers of the NSW Chapter are: Dr. Deborah Dearing (President), Stephen Buzacott (Vice President), Caroline Pidcock (Immediate Past-President), Beverley Garlick, Jacqueline Urford, Roger Barrett, Peter Poulet, Michael Mandl, Tim Horton, Ingrid Pearson, Graham Bell, Steve Kennedy (Chapter Councillors).

INFORMATION

Who is making this submission?

- The Royal Australian Institute of Architects (RAIA) is a voluntary subscription-based member organization with 9,181 members, of which 4,972 are registrable architect members. It is bound by a Code of Ethics and Disciplinary Procedures.
- The New South Wales Chapter of the RAIA has 2,848 members of which 1,485 are registrable architect members representing 52% of all registered architects in NSW.
- The RAIA, incorporated in 1929, is one of the 96 member associations of the International Union of Architects (UIA) and is represented on the International Practice Commission.

Where does the RAIA rank as a professional association?

- At 9,181 members, the RAIA represents the largest group of non-engineer design professionals in Australia.
- Other related organisations by membership size include: The Design Institute of Australia (DIA) 1,500 members; the Building Designers Association of Australia (BDAA) 2,200 members; the Australian Institute of Landscape Architects (AILA)

1.0 INTRODUCTION

The RAI A welcomes the inquiry into Infrastructure Provision in Coastal Growth Areas and are pleased to be able submit valuable input into the inquiry. The submission following is formatted so that the comments relate to the Terms of Reference released by the Inquiry.

The following information and recommendations has been compiled after consultation with our members, with contributions from architects practicing on the Far North Coast, and those also practicing on the South Coast. We have thus referred to specific examples in some of these areas, to best illustrate the relevant points made. For reference, when we refer to the “Northern NSW Coastal Area”, we are referring to the geographical area between Evans Head to Ocean Shores in the coastal shires of Richmond River, Ballina and Byron. However specific these comments are, they are no doubt relevant to other growing coastal areas in NSW.

2.0 KEY COASTAL POPULATION GROWTH AND URBAN CONSOLIDATION TRENDS IN NSW

- 2.1 Coastal areas of NSW are growing at an incredible rate. People are attracted to coastal areas because of climate, lifestyle, natural environment and economic gains. People are seeing the coastal areas of NSW as an ideal retirement location, but also as a desirable place to raise families, work and eventually retire. An increasing number of Australians have become disillusioned with overpopulated cities and now favouring creating a life in coastal areas. This trend has been apparent for many years and more rapidly since the late 1970's.
- 2.2 Living by the coast reflects a desire for climatic comfort. The coast in NSW represents a softer lifestyle than is achievable in other rural and urban environments. The climate is more comfortable than western areas of the state, mountain areas, and suburban city areas.
- 2.3 It is vitally important that coastal towns and villages maintain their individual identity as they experience growth. Continuous development along highway strips have characterised growth patterns on the Central Coast and areas further North, which has been detrimental to the individual identity of these townships. This is less apparent in the South Coast, and the preservation of these South Coast towns should be a high priority when considering planning strategies.
- 2.4 Consolidation and density increase will be a natural growth pattern in existing towns, however should be approached in a sympathetic style compatible with local context.
- 2.5 Architects have acknowledged the desire of Australians to live near the water and continually attempt to design buildings which reflect the coastal lifestyle. Architects instil their designs with a focus on the values of recreation, relaxation near the coast, affinity with natural environments, and a certain idealism towards creating a sustainable environmental. Those that embody these ideas are recipients of architectural awards and they are also seen as a good standard by fellow architects and design critics alike.

3.0 SHORT AND LONG TERM NEEDS OF COASTAL COMMUNITIES FOR BASIC INFRASTRUCTURE AND HUMAN SERVICES INFRASTRUCTURE

3.1 Infrastructure planning in the area of Northern NSW has at best been adhoc and in some instances not consciously considered. Demand has to far outstrip supply in many instances for local councils and state governments to provide services and infrastructure. With massive growths of population, the north coast of NSW requires and deserves more attention from planners and governments with regard to adequate infrastructure. While it is now partly the responsibility of building owners to provide some essential services, it is argued that it is also the responsibility of government bodies to cater for the community servicing needs. Inadequate planning now will create poorly designed communities lacking in basic services and creating potential social ghettos.

3.2 With regards to basic infrastructure, **inadequate water supply** is one of the primary issues facing all coastal communities, as even large towns struggle during times of drought to cope with water supply demand.

Example: - Water supply in the Rous County Council is less than adequate. This water supply services Ballina, Lismore and Byron Shires. During the recent severe drought 2002-2003 the dam level at Rocky Creek lowered to 25% capacity and water had to be pumped directly from the Wilson River to supply local communities. This was an extreme phenomenon, however with recent periods of rain the dam remains at 65% capacity and water is still being pumped from the Wilson River. The dam has not been augmented since construction in 1952 despite populations multiplying many times over (it was proposed to enlarge the Rocky Creek Dam in the early 1990's however due to opposition from different sections of the community the augmentation did not proceed. Rare flora and fauna were discovered in the dam area).

3.3 Development in Byron Bay has been restricted due to **inadequate sewerage systems**. It is only possible to build in Byron Bay on land already zoned for the intended purpose. All rezoning and increased density of existing land stock has been halted since the late 1990's, despite the local council taking sewerage contributions from developers since the early 1980's. Many developers hence question the value of paying these contributions.

Council rates would once have paid for all servicing requirements including sewerage, water, roads and other service augmentation. However even with additional revenue from developer contributions, Byron Council has not been able to keep up to the demand of a rapidly increasing population.

3.4 **Stormwater** in Lennox Head, Byron Bay, Ballina and other coastal communities often discharges directly onto swimming beaches. This causes pollution from grass clippings, paper, plastic, bottle caps, as well as causing problems for swimmers with algal blooms, eye irritations, and other health problems. Pelicans have had problems with bottle tops and these tops also affect turtles and dolphins.

3.5 Current **electricity generation is unsustainable** is generated from coal-fired electricity generators which contribute to pollution. This method of electricity generation, while not yet directly affecting local communities, causes global warming. Climate change could severely affect our local communities with more violent storms and cyclonic events. A new power plant is proposed for a

site near Casino (the environmental impact of this plant is still to be assessed).

- 3.6 **Lack of building services** has generated the creation of alternative servicing provisions, which are often devised by architects or building designers and are solved on individual sites where the demand warrants these provisions. These alternatives include water storage tanks, on-site sewerage treatment plants, solar electric generation, solar hot water heating, cottage gardens, etc.

The more the individual takes care of their own servicing needs, the less strain it is on the wider environment and the rest of the population. For example, if water is collected and used on-site then it isn't lost down drains and does not as easily pollute waterways, beaches, habitats, etc. The water stored on-site also reduces the need for mass community water storage systems. Public services put strains on eco systems and public funds.

- 3.7 The introduction of **BASIX** for new development will assist somewhat for on-site water storage (as noted in 3.6), however existing development requires review as to whether compulsory water tank storage and on-site re-use should be implemented.

- 3.8 Human Infrastructure: **Social and community services lag development.** In the NSW coastal area, developers pay contributions for community services however it takes considerable time to collect enough money to create these social and community services. Individual organisations, art clubs, sport clubs, service clubs etc all take part in fund raising for community services.

- 3.9 **The need of art and cultural precincts;** Art is the soul of society and acts as a cultural definer, yet where there is most growth the provision of art galleries is limited. Most of the focus in these communities is on housing and other forms of accommodation, while cultural areas are provided as an afterthought. The consequences of such planning processes will be that future purchase of land for cultural buildings will be severely hampered by the cost of land.

The Northern NSW Coast has no public art gallery, apart from a small gallery in rural Lismore. Ballina has been trying for years to build a suitable art gallery and has struggled to provide funding. In contrast, Art Galleries in capital cities are well supported and provide cultural focus.

Areas should be set aside for cultural precincts in these developing coastal communities. As in Sydney, areas set aside have been well utilised for public buildings and facilities. The Sydney Domain and Botanical Gardens have been used for an opera house, conservatorium, art gallery, public library, display gardens, and musical events. Assets and finance could be diverted from capital cities to growing coastal communities to limit future problems of boredom. Boredom creates crime and dissatisfaction. Social ghettos in coastal areas are a real threat.

- 3.10 The youth and adults in coastal areas have little cultural stimulus and instead they focus on sport as a means of social interaction. Sport does not accommodate all sections of the community. Sections of the youth population congregate in coastal areas at night to create mischief and to socially interact on a basic level. This street youth congregation is partly caused by a lack of suitable well designed built facilities for these young people.

The lack of social and community assets also limits the learning and education of young people in our community. For art students to see major works they have to travel to either Sydney or Brisbane. Plays and Ballet are often performed in poorly designed service clubs which are inadequate in seating, visual access, performers facilities, staging, props, etc, etc.

- 3.11 **Hospital services and aged care centres** are currently in high demand and are under-serviced to cope with current needs, even without future growth. Planning for and expansion of these facilities are needed now.
- 3.12 There needs to be a focus on increasing the number of medical practitioners to the South Coast. Population growth rate is outstripping the ability to be served by existing Doctors.

4.0 CO-ORDINATION OF COMMONWEALTH, STATE AND LOCAL GOVERNMENT STRATEGIES TO DELIVER SUSTAINABLE COASTAL GROWTH AND SUPPORTING INFRASTRUCTURE

- 4.1 **It is vital that all needs are met and planned for, before development occurs.** If development is delayed or halted due to Government processes after it has commenced, this will only erode the success of the development and will impact negatively on the coastal community.

An example of this is the construction of Main Road 92 (the upgrading of the Coastal link road between Nowra and Canberra) where all three government levels are involved, however the State level is dragging the project behind previously agreed commitments. There are enormous commercial and community gains to be made with the completion of this road and will take the pressure off the Kings Highway and Moss Vale Road/Illawarra Highway routes, both a long diversion from the Shoalhaven destination point when travelling from Canberra.

- 4.2 There needs to be **greater understanding and co-ordination of the assessment and approval process for new development.** Currently the State Planning controls, particularly SEPP 71-Coastal Protection, do not successfully transfer into local context. The DIPNR staff, operating from a city office remote from the sites they are assessing, cannot absorb all local relevant local issues within a reasonable time frame to be able to properly assess a development.
- 4.3 An area of deficiency that would benefit from a review is the **administration of the SEPP 71 Coastal Protection Strategy** that allows planners remote from a site to determine a design character of a project (obviously larger scale of projects) without fully understanding the local issues.

Feedback from members suggest that there is an 'attitude' to South coast development from DIPNR planners that see new projects in the context of 'quaint charm' weatherboard - clad 'cottage style' architecture, regardless of the site's locality or existing development character of surrounding architectural styles. It is felt that the local Government development planning officers are far more appreciative and aware of local context values, without the need for an 'imposed' style.

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- 4.4 Furthermore to the need for a SEPP 71 review, it is acknowledged the Developers can abuse this policy through a perceived loophole. Developers can nominate to subdivide below the SEPP 71 criteria, and then after gaining approval they can then subdivide further. This will need to be addressed at State and Local level.
- 4.5 Many of the alternative servicing systems (noted in 3.6) are now promoted by the State Government. The Department of Infrastructure, Planning and Natural Resources (DIPNR) will be requiring all residential developments in NSW to meet certain **sustainable design criteria** (through **BASIX**). Designs with a passive solar orientation, solar hot water heating, native landscaping, thermal efficiency, water collection and storage systems, etc will gain approval easier than those that ignore sustainable design principles.

This State initiative serves to limit the strain placed on Councils and State Governments due to excessive growth, by placing an increased emphasis on infrastructure planning with the individual building owner. In one sense, it is user-pays on a very local level but one that is arguably required in these times of population demands, large scale pollution and unsustainable large scale approaches to infrastructure.

This should in effect reduce or stabilise the rates charged by local government bodies. However this is yet to be proven.

5.0 BEST PRACTICE METHODS TO PLAN, MANAGE AND PROVIDE INFRASTRUCTURE TO COASTAL GROWTH AREAS

- 5.1 **Emerging Design Solutions**; Greater flexibility and openness to innovative architectural design issues in Coastal towns would be a positive step. Architects are enjoying the opportunities to provide complete building/environment packages. The provision of on-site servicing is a new and exciting frontier for architects, with great design solutions emerging. Due consideration should be given to new, innovative and sustainable solutions.
- 5.2 **Continuous dialogue with the RAIA** will assist in this issue.

6.0 MANAGEMENT OF SOCIAL, ENVIRONMENTAL AND ECONOMIC CONSIDERATIONS ASSOCIATED WITH INFRASTRUCTURE PROVISION IN COSTAL GROWTH AREAS.

- 6.1 In addressing these considerations, input is required from local Councils, primary community groups that are represented in most towns, consultants experienced in each of the relevant fields, as well as State Planning policy makers. Generally, each locality will have specific areas of concern that will require more emphasis on a particular issue to ensure the town's primary needs are met.

7.0 CONCLUSION

Coastal population growth and the increased residential and commercial development along the coast have placed significant demands on coastal communities. Consequently, the need for sensible and visionary planning in these areas is of vital importance, and any measures considered should contribute to the regional identity of that coastal community in physical form and cultural form. In the State Government's anticipated focus on Regional

Strategies, it is crucial that all of the above be considered and incorporated, with particular focus on coastal infrastructure.

The RAI is a firm supporter of sustainable development, which can be encouraged by promoting architecture and infrastructure that minimises the consumption of non-renewable resources and maximises the health, safety and comfort of the community. Most importantly, policies are only as effective as their implementation, and hence we cannot underestimate the value of smooth coordination between local, state and Commonwealth Governments.

References

Water catchment and population growth: "Pressures on the catchment"
http://www.epa.nsw.gov.au/soe/97/ch3/16_2.htm

Rocky Creek Dam: "So near Yet So Far"
http://www.rouswater.nsw.gov.au/content/uploads/so_near_yet_so_far_9.pdf

Byron Bay Infrastructure: "In Byron, development remains the big issue"
<http://www.onlineopinion.com.au/view.asp?article=2666>

Sydney Morning Herald article on Byron Bay Infrastructure:
<http://www.smh.com.au/articles/2002/03/31/1017206172615.html>