



Central Coast Marine Discovery Centre

BACKGROUND PAPER

January 2008



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1 CCMDC Working Group

The Central Coast Marine Discovery Centre (CCMDC) Working Group includes representatives from the following organisations:



Business Central Coast



Gosford City Council



Central Coast Area Consultative Committee



Ocean & Coastal Care Initiatives (OCCI)



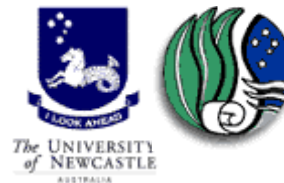
Central Coast Tourism



Rumbalara Environmental Education Centre (Department of Education & Training)



Community Environment Network



University of Newcastle (Ourimbah Campus)



Department of Environment & Conservation (National Parks)



Wyong Shire Council



Department of State & Regional Development

The concept of a Marine Centre on the Central Coast has been initiated through a number of parallel processes.

Early in 2004, a committee comprising a number of the partner organisations met for initial discussions and to identify possible functions of the Marine Centre. This committee included representatives from community, environment education and marine research sectors and resolved to seek opportunities to pursue the establishment of the Marine Centre.

Concurrently, Central Coast Tourism initiated a study of nature based tourism on the Central Coast, co funded by the Central Coast Area Consultative Committee, State and Regional Development and Business Central Coast. The study was launched in November, 2004 with one of the recommendations being the establishment of a Marine Discovery Centre.



Photo courtesy Wyong Shire Council

Part of the region's coastline

In 2005, a working group was formed to further develop the concept of the Marine Centre. The working group includes the following representatives:

- | | |
|----------------------------------|--|
| • John Asquith | Convenor |
| • Jane Smith | Community Environment Network |
| • Horst Endrulat | Central Coast Tourism |
| • Dr. Bill Gladstone | University of Newcastle (Ourimbah Campus) |
| • David Bacon | Central Coast Area Consultative Committee |
| • Peter Brown | Department of State & Regional Development |
| • Duncan Gilchrist / Tony Axford | Business Central Coast |
| • Mark Attwooll | Rumbalara Environmental Education Centre
(Department of Education & Training) |
| • Danielle Willcox | Wyong Shire Council |
| • Trisha Donnelly | Gosford City Council |
| • Alan Henderson | Department of Environment & Conservation
(National Parks) |
| • Jeannie Lawson | Ocean & Coastal Care Initiatives (OCCI) |

3 Agreed Principles

3.1 Partnerships

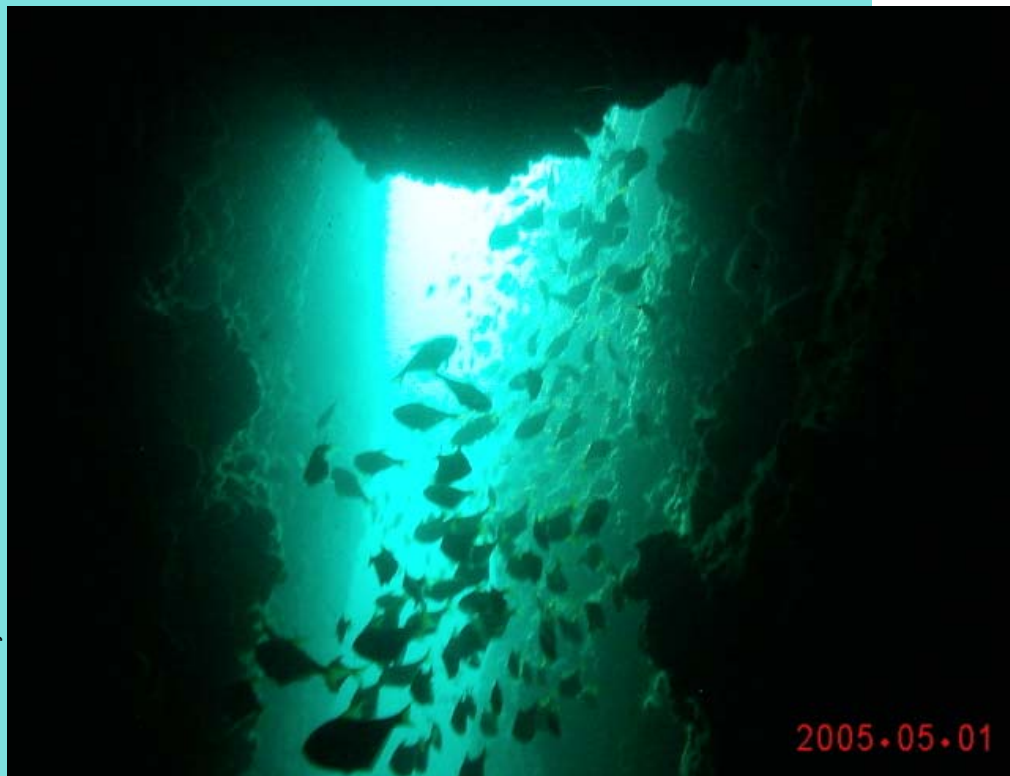
The Central Coast Marine Discovery Centre proposal brings together a range of stakeholders with diverse interests – including environment and conservation, education, tourism, economic development, scientific research and development, natural resource management, business and industry.

Through cooperation and a shared vision, stakeholders have engaged in the development of this proposal.

The proposal through its multi-faceted approach recognises the marine and coastal environment and its social and economic values for the Central Coast. It seeks to provide benefits to each of these values.

It is envisaged that the Centre will have a patron – with some credentials recognised in this area – not only state wide but internationally.

Photo courtesy Steven Lindfield



The Skillion cave, Terrigal

3.2 Marine and Coastal Environments

South-eastern Australian rocky reefs have a high diversity and endemism, meaning that most of the species occur nowhere else on Earth. Many representatives of the marine biodiversity of south-eastern Australia have levels of endemism approaching 80%. The proposal for a

Marine Centre will raise awareness about the marine values that are present on the Central Coast.

Within a relatively small area of the Central Coast the main marine and coastal ecosystems are all represented including beaches, rocky shores, sub-tidal rocky reefs, coastal lagoons, estuaries and the open coastline. The easy access to each of these environments provides an outstanding opportunity to investigate these different but linked ecosystems.

Some of the unique mix of features of the region include:

- Understanding the processes that support Australia's unique marine biodiversity is an essential requirement for conservation and sustainable use. In particular, environmental and habitat diversity are believed to be important determinants of the richness of marine biodiversity. The diversity of coastal habitats and environments that occur on the Central Coast provides researchers with the opportunity to develop and address these important questions.
- The close proximity of estuarine and coastal ecosystems provides excellent opportunities for research into the connectivity of these ecosystems. Many species that are important for recreational and commercial fisheries breed on coastal reefs but have a juvenile phase that occurs within seagrass and mangrove habitats in estuaries. These juveniles then migrate to coastal reefs. An understanding of the spatial extent of this connectivity is necessary for sustainable management of marine fisheries and for decisions about the locations of marine protected areas. The Central Coast therefore provides an excellent location to research these critical questions.
- Managed landscapes – for example, Bouddi Marine Extension
- A number of historical shipwrecks – mostly in deep water but some in quite shallow water. These provide good opportunities in terms of heritage significance and enhancement of biodiversity through the colonisation process.
- Iconic species on the Central Coast. For example, the Central Coast is an excellent spot for watching whales travelling north and south. Other iconic species include seabirds, grey nurse sharks, weedy sea dragons, blue groper, and turtles.
- A large number of tropical species that make their way down to our reefs here each year from about February to April. This provides a good example of how ecosystems change over time and for demonstrating connections.
- The Central Coast is part of the Hawkesbury Shelf bioregion and its biodiversity is also representative of regional coastal and marine biodiversity.



Blue Groper

Photo courtesy Steven Lindfield

- Examples of ecosystems that are relatively undisturbed (compared to other locations in NSW) and therefore excellent for education eg coastal dune systems, many parts of Brisbane Water estuary and Lake Macquarie

The CCMDC will play a major role in conservation efforts in the region through its research, education and specifically funded projects targeting conservation.

3.3 Economic

As with any coastal area of Australia located close to a major centre, the Central Coast is experiencing rapid growth and development, both in population and business. The Central Coast is considered one of the fastest growing regions in the state (PacALLIANCE, 2002).

With its high population growth projection, the Central Coast is facing increasing pressure to create more local jobs. The estimated workforce living on the Central Coast in 2001 was around 120,000. Projected population growth until at least 2006 will add 25,000 people to this workforce by 2006, or around 5,000 people per year. Local jobs, being those on the Central Coast, are predicted to absorb only 70 percent of that workforce. The remainder will commute out of the region for work or will be unemployed. (PacALLIANCE, 2002).

There are a number of distinctive features of the Central Coast, which makes the region an important residential, business and tourist hub. These features include:

- Relaxed lifestyle and sense of community;
- The central location between the major population centres of Sydney and Newcastle with excellent road and rail links;
- The combination of city advantages with the amenity of living in a range of villages, towns and localities, many separated by open space and natural areas;
- A temperate and reliable climate;
- The abundance of natural attractions such as Brisbane Water and Tuggerah Lakes, ocean beaches, bushlands and mountains;
- Productive agricultural land, forest and mineral resources;
- Robust manufacturing and a range of service industries; and
- A long established holiday and tourism industry.

Currently the region is known for its A\$1 million tourist industry, fast growing a reputation for information technology and as home to some of Australia's best known food and beverage brands

Competitive advantages of the region include:

- highly skilled and motivated workforce
- centralised and cost-effective market access
- broad range of industrial and commercial property options
- affordable commercial rent
- high-speed and capacity telecommunication links.

3.4 Education

As the coastal fringe of NSW is subjected to ever increasing population pressure, its ecological sustainability becomes increasingly reliant on the level of environmental awareness in the community.

A Marine Discovery Centre would complement existing Environmental Education Services on the Central Coast. These include those delivered by government agencies such as Rumbalara Environmental Education Centre (Department of Education and Training), NSW Fisheries Fishcare volunteers, the National Parks and Wildlife Services Discovery Rangers, Waterwatch, community groups and a variety of Council sponsored initiatives in the three local government areas (Gosford, Wyong and Lake Macquarie). With access to a prominently located and specialised Marine Discovery Centre these existing programs could be delivered to larger and more diverse audiences.

A dedicated Centre designed to stimulate interest in the broad range of issues relating to sustainability of coastal environments would also offer new, high quality environmental programs and interpretive facilities. These would cater to students (schools, TAFE, University), the local community and tourists. As there is no other Marine Discovery Centre outside of Sydney, the Hunter Central Coast region is expected to be the main catchment area although students and academics may be drawn from further afield. The population of the Hunter Central Coast Region is approaching 1 million with a school age population of about 180, 000.

The CCMDC is also well positioned to support Councils in their roles of educating the community. This is well demonstrated by the current requirement on all councils to produce Estuary Management and Coastline Management Plans. Each of these plans will have an accompanying education strategy. It is anticipated that these plans will be implemented during the next two to five years.



Photo courtesy Wyong Shire Council

Bathers and fishermen at The Entrance

3.5 Tourism

The Australian State of the Environment Report (2001) states that “marine and coastal-based tourism is important to Australia, not only for domestic tourism..., but also for the 20% of tourists arriving from overseas who prize our natural and unspoilt marine environment.

According to the Bureau of Tourism Research, 70% of international visits are to coastal areas and 42% of domestic visits are to coastal and marine areas”.

Visitor statistics from NSW Regional Tourism Forum (May, 2002) indicate that for the Central Coast:

- 98% of visitors are domestic
- 1,384,000 domestic overnight visitors
- international 26,000 visitors
- Day trips 3.9 million
- Total estimated expenditure \$540.8 million; 4,759 jobs generated

Current figures (2004) are 1.4 million domestic overnight visitors, 30,000 international visitors and day trips is 3.2 million. Total estimated expenditure is \$620 million.

However, in spite of the many features of the Central Coast and the broad range of sectors that are attracted here the region has only 38 identified attractions, the lowest number of any region. (NSW Regional Tourism Forum, May 2002).

The CCMDC is well placed to take advantage of trends in tourism towards ecological sensitivity and products which embrace genuine values and are “planet positive”.

4 Purpose of the Centre

Vision:

To provide for the sustainable use, understanding and enjoyment of our coasts and oceans

Key principles agreed by the working group:

- The primary activity of the centre will be a working Research and Education Centre with an “outer layer” of activities being tourism and associated businesses. Outer layer activities potentially provide some of the revenue stream.
- The centre will be recognised as a Centre of Excellence specialising in research and education in temperate environments (in contrast to tropical/ sub-tropical environments). The Centre will attract research partners, domestic and overseas students and visitors, and demonstrate environmental best practice in all its activities.
- Education is a core activity of the Centre demonstrating excellence in all levels of education (primary, secondary, tertiary and community).
- Profile of the Centre builds on its reputation as a Centre of Excellence and is recognised as a place that people seek out.
- The Centre will build on the high level of community involvement and partnerships.
- The Centre needs to be a regional facility for the broader Central Coast region (extending beyond the LGA boundaries) and promote the Central Coast as a region.
- The Centre is a long term project and requires a staged approach to fulfil all its goals.
- The Centre needs a broad mix of activities / partnerships that ensure the sustainability of the centre.
- The Centre will be encouraged to find solutions by commercialising its expertise, facilities and discoveries in a wide range of coastal and ocean environments.

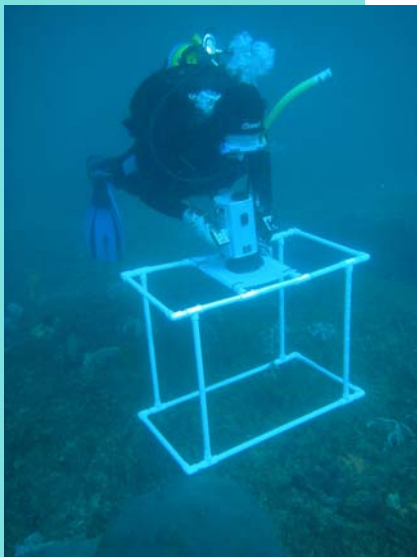


Photo courtesy Bill Gladstone

Working Research Centre with strong linkages and integration with education, business and tourism.

Business partnerships including commercial elements of research, education, tourism and related operations (example would be links to Manly Oceanworld, Sydney Aquarium etc.). Commercial opportunities including media and industry.

Government (state and federal) - (eg. Extension officers) – cooperative relationships will be formed with a range of organisations with stakeholder interests in the marine and coastal environment; for example, Fisheries, NPWS. This may lead to locating staff at the CCMDC thereby adding expertise and credibility to the operations of the CCMDC.

Council partnerships – assist Council to demonstrate best practice developed within the marine center via research, education and natural resource management.



Photo courtesy Rumbalara EEC

Education – primary, secondary, tertiary, community based and international students. Partnerships with the University of Newcastle to provide a field studies location for undergraduate, post-graduate students and short course students. The Central Coast Campus offers courses in both Marine Science and Sustainable Resource Management.

Tourism ventures – such as whale watching / fishing / diving charters and land-based snorkeling, diving or coastal walk activities. Exhibitions and displays including local heritage – eg. Ship building history, indigenous culture etc.



Photo courtesy Jane Smith

Support existing tourism industries – a link for existing operators in the area eg. Dive shops, fishing charters, Artificial Reef Project. This may include promotion, facilitating activities, coordinating bookings etc.

Community links – will build social capital through partnerships with the community.

Services – to support the financial operation of the CCMDC – may include activities such as tourist information, shop, coffee shop / restaurant and function spaces.



Photo courtesy Steven Lindfield

6 Alternative models in terms of function:

6.1 Model 1: Centralised at one location (all activities at one centre)

Advantages

- Facility becomes a focus in itself – providing an attraction.
- Centralised location that is easily identified by target markets
- Staff, resources, activities and associated risks more easily managed.
- Only one infrastructure cost

Disadvantages

- Limited in terms of activities that would be undertaken at one venue.
- Possibly increased capital costs in locating all facilities at one venue – rather than taking advantage of other locations/ facilities.
- Only in one local government area – difficulty in representing the Central Coast as a region.

6.2 Model 2: Central venue with outreach activities (not venues) at different locations

Advantages

- Facility becomes a focus in itself – providing an attraction.
- Centralised location is easily identified by target markets with outreach activities
- Not so tied to the location – outreach activities
- Outreach costs could potentially be borne by others
- Large number of activities because of spread of locations
- Greater access for students and the public to the work of the centre

Disadvantages

- Staff, resources, activities and associated risks less easily managed.
- Increased costs
- Dilute the worth / identity of the centre

6.3 Model 3: Central venue with distributed ancillary venues

Advantages

- Not so tied to a single location – outreach activities
- Outreach costs could potentially be borne by others
- Large number of activities because of spread of locations
- Greater access for students and the public to the work of the centre
- Well resourced facilities in other locations

Disadvantages

- Facility no longer a focus in itself
- Distributed location is less identified by target markets
- Staff, resources, activities and associated risks less easily managed.
- Increased costs
- Dilute the worth / identity of the centre

6.4

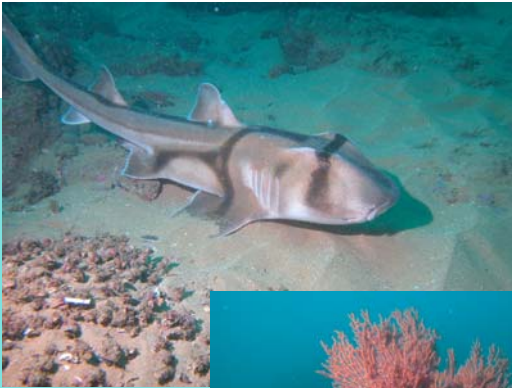
Model 4: Fully distributed model (a number of venues working together under a management committee)

Advantages

- Customise to different markets
- Outreach costs could potentially be borne by others
- Large number of activities because of spread of locations
- Greater access for students and the public to the work of the centre
- Well resourced facilities in other locations

Disadvantages

- No single location identified as the Centre
- Facility no longer a focus in itself
- Distributed location is less identified by target markets
- Staff, resources, activities and associated risks less easily managed.
- Increased costs
- Increased difficulty in some collaboration activities
- Dilute the worth / identity of the centre



Photos courtesy Bill Gladstone

7 Alternative Locations:

The following table was compiled as an initial desktop assessment of possible locations for the CCMDC. It is subject to further detailed investigation once preferred options are identified. A map appears on the following page with locations marked.

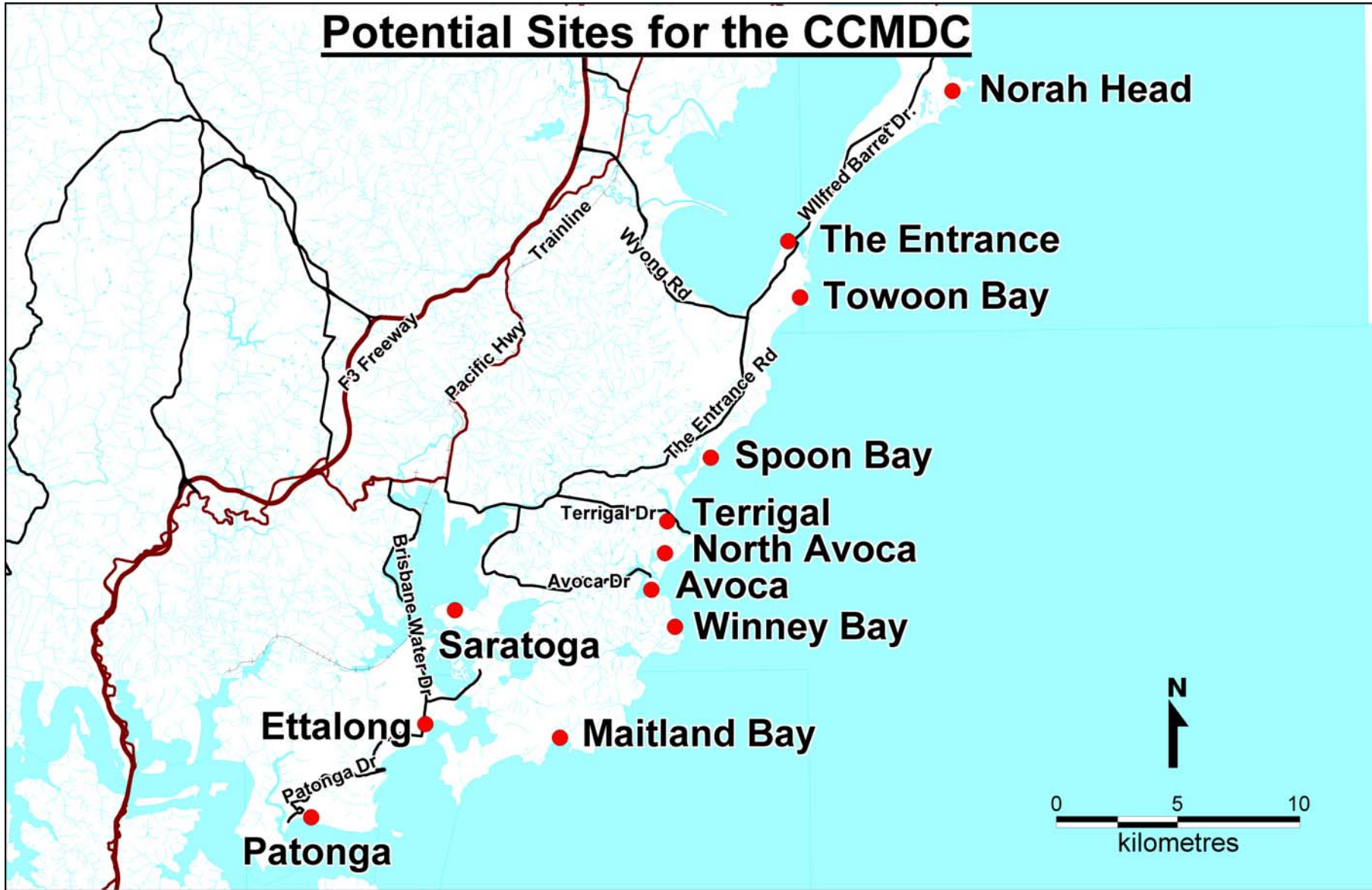
Note: Ideally each attribute needs to be scored on a scale of 1-10 rather than yes / no simplification

Location	Model 1: Centralised at one location (all activities at one centre)	Model 2: Central venue with outreach activities (not venues) at different locations	Model 3: Central venue with distributed ancillary venues	Model 4: Fully distributed model (a number of venues working together under a management committee)	Access to clean sea water – pumped up into the facility	Tourism Support services	Access to boat ramp	Existing buildings	Access to accomm in close proximity	Close Proximity to other tourist destination (current high visitor numbers)	Close proximity to range of ecosystems for research and education
Patonga	No	No	Ancillary	Ancillary	Yes	No	Yes	No	No	No	Yes
Ettalong	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Saratoga	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes
Maitland Bay	No	No	Ancillary	Ancillary	No	No	No	Yes	No	No	Yes
Winney Bay	No	No	Ancillary	Ancillary	No	No	No	No	No	No	No
Avoca	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes
North Avoca	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes
Terrigal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Maybe	Yes	Yes	Yes
Towoon Bay	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Spoon Bay	No	No	Ancillary	Ancillary	No	No	No	No	No	No	Yes
The Entrance area	Yes	Yes	Yes	Yes	Yes	Yes	No	Maybe	Yes	Yes	Yes
Norah Head – lighthouse + rescue	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes

Other attributes to be considered:

- easy access from F3
- links to other tourism activities (eg. Pelican feeding, whale watching, artificial reef, fishing charters, restaurants)
- public transport services / parking
- access to calm water for snorkelling / education activities

Map of the region:



The Working Group has resolved to put in place an action plan with both long term and short term objectives.

Short Term Activities

1. Establish CCMDC Website
2. Logo - Conduct a logo competition inviting schools and the general community to submit their designs.
3. Establish Friends of the CCMDC
4. Events and Project Activities
5. University activities - Support community activities, Research linkages, Student Volunteers
6. Temporary Building – Secure a temporary venue for display and activities
7. Business Planning – develop a business plan for the long-term sustainability of the Centre
8. Conceptual Drawings for the CCMDC

Long Term

9. Create legal entity for CCMDC
10. Secure financial partners for long-term facility
11. Establish physical facility
12. Develop resources (including staff / volunteers), policies and procedures for on-going operation of CCMDC

We are well underway towards implementing this plan – but we need your help!

If you have skills, resources or time that you would like to contribute to the CCMDC then contact us:

Ph: 4349 4756

Email: ccmdc@cccen.org.au

A preliminary list of infrastructure requirements for the CCMDC is as follows:

- Research labs
- Aquaria
- Lecture theatre / presentation theatre / classrooms
- Multimedia capabilities
- Storage rooms
- Compressor
- Secure storage
- Diving
- Displays – “hands on” & static
- Viewing platforms / areas
- Admin areas – offices
- Tourism support – café, restaurant, accommodation
- Boat/s
- Access to clean sea water – pumped up into the facility
- Access for storage of equipment including diving equipment
- Space for 1 or 2 boats.
- Staff costs

Other suggested features of the centre could include:

- Underwater sculpture park
- Underwater observatory
- Linkage to Central Coast Artificial Reef Project