'It's part of me';
The social values of NSW beaches and headlands

Report to the NSW Department of Primary Industries (Fisheries NSW)

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Acknowledgement

Executive summary

- A series of in-depth, semi structured interviews were conducted with coastal users within the Batemans and Solitary Islands Marine Park. In total 34 interviews, with 42 individuals, were conducted across a spectrum of use types, including surfers, recreational fishers, professional fishers, spearfishers, passive users, divers, snorkelers, kayakers and coastal community groups.

- Consideration of the social values of the coast needs to be extended beyond recreational shore-based fishing alone, to ensure that decision making incorporates consideration of the full suite of values and uses that may be impacted by changes in management arrangements.

- The research suggests the dominant cultural models being employed amongst the research participants were 'ecological' and 'community' cultural models.

- The ecological cultural model gives primacy to ecological function and connectivity, prioritising these objectives over other social and economic objectives. This model appears to elevate 'no take' or national park style protection as the highest and most ideal form of protection of the marine environment. This group appears to more supportive of top down, expert led processes.

- The community model prioritises the coast as a place of social interaction and community use and emphasises the importance of traditional and cultural use of marine resources to local communities. This group appears to have a greater distrust of 'expert led' processes and a stronger identification with alternative forms of knowledge (such as practical experience).

- Both groups supported a management approach which is responsive to key threats in assessing whether the amnesty on shore based recreational fishing in coastal Sanctuary Zones should continue.

- The development of a threat and risk assessment approach to marine park planning, as proposed by the NSW Government, will require not only an 'expert' led assessment of risk but involve local communities, including Aboriginal communities, in discussion about their perceptions of threats and their ideas about appropriate responses to them. The integration of these two approaches to planning is a challenge that will require a transparent and inclusive methodological approach that does not elevate or prioritise one form of knowledge or one cultural model over another.

- There was general agreement amongst both cultural models that shore-based recreational fishing poses minimal ecological risk to the beach environment. If this view is reflected in the ecological assessment of the coast this provides significant scope for an act of good will which considers alternative means of managing key threats to open beach areas (other than Sanctuary Zones) within marine parks.

- The interviews indicated that headlands are seen as a more complex social and ecological environment and therefore require a more in-depth and integrated examination of the ecological, social and economic threats and benefits of allowing shore-based recreational fishing. This research indicates that the primary threats to social values associated with *allowing* shore based recreational fishing from headlands may include:
  - Ecosystem conservation values: due to the more complex biodiversity values of headlands, weakening Sanctuary Zone restrictions is likely to result in disillusionment and disappointment amongst people who value no-take areas as an ideal method of protection of these values.
  - Equity values: Perceptions of preferential treatment of some users groups (shore-based line fishers) over others (spearfishers, boat-based fishers, professional fishers).

- The social threats of *not* allowing shore-based fishing from headlands will vary from site to site according to their accessibility, physical or geomorphological features and their social importance. Therefore these impacts will require examination on a case-by-case basis in

conjunction with a rigorous ecological risk assessment. The *potential* primary social threats of *not allowing* recreational shore-based fishing from headlands may include:

- o Impacts on tradition and culture: For Aboriginal people this may involve cumulative impacts (along with fisheries regulations, national park restrictions and urban development) on the ability for Aboriginal people to use and access the coast to practise cultural fishing and share seafood resources amongst kin. For non-Aboriginal people this may include loss of sites that are important in the traditions of their family and friendship networks.
- o Impacts on sites of learning: these may include the loss of 'safe' locations (depending on exposure to different sea and wind conditions) for learning fishing and diving skills or 'initiation' sites, particularly for young males developing their sense of masculinity.

1. Background and context

1.1 Policy background

In 2011 the NSW Government commissioned an Independent Scientific Audit of Marine Parks in NSW (Beeton et al. 2012). The Audit report was released on February 2012.   In response to the Audit the Government announced a new approach to sustainable management of the NSW marine estate (NSW Government 2013). A key component of the Government's response was a recognised need to improve the inclusion of social research into the overall management of the marine estate, particularly when planning and reviewing marine parks. It was envisaged that this would involve not only improved public participation and community engagement, but the development and implementation of a threat and risk assessment framework that considers threats across the entire marine estate, including threats to its social, economic and ecological values. The response also included an amnesty on shore-based recreational fishing from ocean beaches and headlands in marine park sanctuary zones. The Department of Primary Industries (DPI) has therefore identified a risk assessment of ecological, social and economic values from a range of recreational fishing activities on ocean beaches and headlands in sanctuary zones as a key research priority.

This report represents the first step in the development of a risk assessment approach to social values. It seeks to identify the values that may be at risk, or may benefit, from changes to management approaches, including allowing shore-based recreational fishing within beaches and headlands currently designated as Sanctuary Zones.

1.2 Why consider social values?

Recreational fishing is a popular past-time within Australia. It is estimated that approximately 20% of Australians participate in recreational fishing (Henry and Lyle 2003). About 10% of respondents to a visitor survey in the Solitary Islands Marine Park (SIMP) mentioned fishing as an activity they participated in within the park. Of these, 25% indicated a preference for beach fishing (Ryan 2005). Within the sport of recreational fishing there are many different forms of fishing. Techniques relevant to beaches and headlands are largely shore-based line fishing from the beach, often for pelagic species like tailor, salmon, mulloway or flathead and whiting. Fishing off rocky headlands involves targeting species such as luderick and drummer, often using bait sourced from the rocky platform such as cunjevoi (*Pyura stolonifera)* and green alga (*Ulva lactuca)(Gladstone 2006, Gladstone and Sebastian 2009).* Rocky headlands are also commonly used for spearfishing and collecting, including diving for abalone and lobster. Beaches and headlands are also used by professional fishers, particularly those employed within the beach haul, lobster and abalone sectors of the industry.

Beaches and headlands are popular for a wide variety of uses beyond fishing. Aboriginal people have a strong connection to the coast for range of ceremonial, social, professional and cultural purposes (NSW Office of Environment and Heritage 2012). Passive recreational activities (such as walking, sunbaking, picnicking) and active non-extractive pursuits such as surfing and swimming account for the majority of uses of the beach (Ryan 2005, Destination NSW 2012). Similarly, in studies on headlands, walking and observation, including exploration of rockpools and crevices, were found to be the most common type of use (Gladstone 2006, Gladstone and Sebastian 2009). Consideration of the social values of the coast therefore needs to be extended beyond recreational shore-based fishing

alone, to ensure that decision-making incorporates consideration of the full suite of values and uses that may be impacted by changes in management arrangements.

Understanding people's values provides useful insight into the way people respond to the world. One approach for understanding different attitudes towards marine conservation initiatives, such as Sanctuary Zones may be examining the intersection of values, with images (or mental models) and principles (Song et al. 2013). Essentially this process involves exploring three 'niches' of an individual's mindset;

1. Value priorities (or what an individual thinks is important),

2. Images (or how the individual 'sees' the world); and

3. Governance principles to which the individual subscribes.

Analysing the way values, images and principles intersect gives insight into the 'worldviews' or 'cultural models' individuals use to interpret the world around them and a greater understanding of the areas of conflict between different cultural models (Thompson 2007, Stocker and Kennedy 2009, Song et al. 2013). The way people prioritise and encourage particular values influences the cultural model or 'worldview' they employ to determine their conception of the 'correct order'(Thompson 2007, Stocker and Kennedy 2009). Cultural models are analogous with what is known as 'common sense' – a widely shared view of the world which influences people's perception of what is and is not appropriate behaviour. This view of the world influences peoples understanding of the biophysical and social world (Thompson 2007, Stocker and Kennedy 2009). Just as people differ in their perception of what constitutes 'common sense' , the dominant cultural models in society tend to differ and in many cases clash, causing conflict within the community about acceptable actions, ideas and behaviours (Thompson 2007, Stocker and Kennedy 2009). Thompson (2007) identified seven cultural models relevant to coastal property, as outlined in Table 1.

Table 1: Cultural models of coastal property and their cultural focus (From Thompson 2007)

Model	Focus
Sovereignty	Individual control, boundaries, exclusion, privacy
Community	Social interaction, proper behaviour, sense of place
Landscape	Visual consumption
Ecology	Ecosystem functions and ecological connectivity
Moral Order	Awe, humility, wonder and proper order
Commodity	Selling for highest market value
Productivity	Putting resources for use for the betterment of society

While Thompson's study specifically related to coastal property the cultural models he puts forward are likely to be relevant to wider range of situations. This report examines the values, images and principles of a wide range of beach and headland users in two NSW marine parks. It goes on to identify the predominant cultural models that are operating on the NSW coast and the areas of conflict that need to be addressed or acknowledged when assessing the management of shore-based recreational fishing in marine park Sanctuary Zones. It also provides insight into areas of agreement which can be used as the basis for negotiation and consensus building between conflicting cultural models.

2. Methodology

2.1 Research methods

The project aimed to evaluate the social values attributed to ocean beaches and headlands (hereafter referred to as 'the coast') by exploring the different ways people in NSW use and value the coast using qualitative research techniques.

A case study approach was taken involving two sites - the Solitary Islands Marine Park (SIMP) and Batemans Marine Park (BMP) – to provide insight into the social value of NSW beaches and headlands (Creswell 1998). The SIMP and the BMP were selected to provide geographical diversity between the two case study areas – both the north and south coast of NSW. Both have significant levels of use of the coast, a heavy reliance on coastal areas within their local economies and strong maritime histories.

Initially a range of primary and secondary data sources were examined including existing interview and social research data, publicly available documents such as community submissions, letters to the editor and government documents in order to gauge existing knowledge of coastal values. These were supplemented with targeted, semi-structured interviews within the two study areas.

Socio-economic reports, user surveys and public submission reports from both the SIMP and the BMP reveal a diversity of uses, which can be loosely classified as active, passive, commercial and community uses (Table 2). This study did not seek to quantify the numbers of people within each of these stakeholder groups but used this loose classification to guide purposive sampling in the case study areas (Miles and Huberman 1994). This allowed for a broad spectrum of uses and users to be incorporated into the interview process.

Table 2: Overview of use groups in the SIMP and BMP identified in government reports and planning documents (Ryan 2005, Marine Parks Authority 2006a, b, Powell and Chalmers 2006)

	Active uses	*Passive uses*	*Commercial uses*	*Community uses*
Extractive or potential for impact	Recreational fishing Spearfishing Subsistence and Aboriginal fishing Personal water craft/motorised water-sports 4WDing Harvesting (eg beach worms, pipis, molluscs)	Pet exercising Rockpool or platform foraging	Professional fishing Charter fishing	Sport competitions (eg fishing competitions)
Non- extractive or low impact	Surfing Swimming Private boating Scuba diving Canoeing/Kayaking Beach based sports activities	Beach, rocky shore and headland walks Sightseeing Homeowner/resident Camping Sunbaking Picnicking	Commercial dive tours Boat and jetski hire, parasailing. Surf schools Whale and dolphin watching charters Tourism industries (eg caravan parks, accommodation, retail)	Research and education Beach/dune care Surf clubs Conservation Aboriginal ceremonial and cultural use Sport competitions (eg surf competitions)

Interview participants were selected using methods employed in PhD research by Michelle Voyer and the 'Talking Fish' Murray-Darling project (Frawley et al. 2012). The study initially aimed to interview 1-2 representatives from each category of use represented in Table 2 (ie active extractive users, active non-extractive users, passive non-extractive uses etc), preferably one male and one female. Similar studies in freshwater rivers have shown that men and women can have quite different experiences and perceptions and therefore both should be represented in the study (Frawley et al. 2012). While Table 2 provided a useful tool to guide participant selection in practice many of the participants interviewed fell into many different categories of use (see Section 3). In total 38 interviews with 46 individuals were conducted across the two parks, however, given time constraints not all interviews were able to be transcribed and coded. The field work was supplemented (with permission) with interviews conducted as part of Voyer's PhD research (Voyer et al. 2013). Interviews specifically relevant to the beach and headland users in the BMP were selected (an additional 3 interviews with 5 individuals) and included in the analysis. In total 34 interviews, with 42 individuals, were included in this analysis (Table 3).

Table 3: Number of participants in interviews with coastal users in the Batemans and Solitary Islands Marine Parks (from a total of 34 interviews)

Park	Male	Female	Total
Batemans Marine Park	17	8	25
Solitary Islands Marine Park	15	2	17
Total	32	10	42

The age distribution of interview participants was as follows: 8 (19%) were aged in their twenties/ thirties, 17 (40.5%) were aged in the forties/fifties, and 17 (40.5%) were retired or of retirement age (60+). Initially interview participants were selected using a variety of means. Nominations were sought from Marine and National Park staff, advisory committee members, existing contacts within the community and local Aboriginal Land Councils. Once contact was made with a number of interviewees in each stakeholder group further participants were sourced through 'snowball' sampling whereby participants nominated additional potential interviewees (Blaikie 2009). However, additional effort was expended to source interviewees that reflected a broad range of the community including those that may not necessarily be actively engaged in marine park management programs or consultation exercises and may therefore not be known to marine park staff. For example, contacts were sought through surf lifesaving clubs, the business community and sporting clubs (such as boardriders' associations).

2.1.1 Data collection and analysis

Interview participants were initially contacted by phone or email and the project explained to them in detail. An information sheet was sent to them to assist in deciding whether they wished to participate. From there an interview time, date and venue were decided in consultation with the participant. Prior to commencing the interview ethical requirements were explained and discussed, including the anonymity of the participants (see Section 3.4). Audio recording commenced after a consent form was signed.

Interviews were conducted over a period of two weeks - one week per study area. On average they lasted approximately 40 minutes. Questions aimed to elicit emotional attachments, non-use values, or use values relating to the coast and specifically to beaches and headlands. Questions were open-ended in order to guide but not direct discussion. Participants were encouraged to bring photos or artefacts to

stimulate discussion or to reflect on one of their favourite sections of the coast (eg a favourite beach).They loosely followed the structure outlined in Attachment 1.

Following completion of the interviews the audio recordings were transcribed verbatim (Miles and Huberman 1994). Analysis of the interviews was conducted using a thematic analysis approach, involving repeated coding, sorting and categorising using Nvivo 9 qualitative analysis software (Miles and Huberman, 1994). Initially all the interview transcripts were coded at a basic descriptive level, guided by the value types, images and governance principles outlined in Song (2013). The logs were then re-examined in order to draw out major themes and compare, contrast and examine the intersections of values, images and principles across the spectrum of users (Maxwell 2005, Creswell 2009). When analysing interviews which involved multiple participants the analysis focused on the transcript as a whole rather than the views of individual participants. Therefore the figures contained within this report should be read as the number of interviews in which the key themes occurred not as the number of individuals who expressed these views.

2.2 Human Ethics

This research was conducted in accordance with UTS human ethics approval. Ethical considerations were incorporated into the research design in the following ways:

- Ensuring informed prior consent of all participants.
- Ensuring the anonymity of all participants through de-identification of all data.
- Incorporating member checks and sharing of research findings with participants.
- Providing opportunity for participants to withdraw from the research if they were uncomfortable with the use of their data or specific quotes.

2.3 Research limitations and constraints

The selection of the BMP and SIMP as case studies meant that the results of this analysis provided insight into coastal values in rural and regional areas, and further research would be required in more densely populated urban areas in order to understand how coastal values are shaped and influenced by greater population densities. It should also be noted that, given time constraints and the timing of the research in a period of traditionally low levels of visitation, it was only possible to focus on local residents in each community, neglecting the important tourism market. This has been addressed as much as possible by interviews which included tourism operators and current residents who were also long-term visitors to the area prior to moving there. Further research, however, is required to get a meaningful account of the way in which rural and urban visitors value their coastal holiday experience.

The project sought to maximise the number of interviews across the full spectrum of users within the timeframes available. A number of groups within the community are traditionally harder to access than others due to the need to build relationships, develop trust or gain entry into social networks (eg amongst less formally organised user groups). This is particularly relevant to Aboriginal communities and people from Non-English language backgrounds, and to a lesser extent children or teenage users. The short timeframes involved in this research limited the capacity of the researchers to make the necessary time commitments to developing these networks and build relationships of trust. The under-representation of these groups amongst the interview participants is thus a significant limitation of this research. In particular no Aboriginal people from the SIMP area (Gumbaynggirr people) were available to be interviewed for this study. Despite this a valuable body of literature exists which was

able to inform this research, particularly in relation to Aboriginal cultural use of the coast. In recent years oral history work has been conducted within both the BMP and the SIMP areas, and the NSW area in general, on the cultural importance of the coast to Aboriginal people (eg see English 2002, Dale Donaldson 2006, Dale Donaldson 2008, Kijas 2009). In addition, a comprehensive literature review of existing research into the importance of coastal areas to Aboriginal people in NSW has been prepared by the NSW Office of Environment and Heritage (NSW Office of Environment and Heritage 2012). Rather than reproduce its findings this report summarises its keys points and supplements these with the results of the interviews. It is recommended that all future processes allow for sufficient opportunity for Aboriginal involvement in research of this nature by building additional time and resources into project proposals to encourage and support Aboriginal involvement. Similarly, efforts should be made to develop and build relationships with communities of non-English speaking backgrounds for whom the use of seafood resources plays an important cultural and social role.

3. How do we use the coast?

The top two uses of each participant were classified and categorised. Table 4 outlines the spectrum of use types encountered amongst the interview participants. The sum of types of use is greater than the number of interviewees because most interview participants engaged in multiple uses of the coast.

Table 4: Interviews with coastal users according to use categories in the Batemans and Solitary Islands Marine Parks

Use category	Male	Female	Total
Business: tourism and retail industries eg surf school, beach hire, tour groups, Bait & Tackle shops	2	2	4
Commercial uses: professional fishing (beach haul & lobster/abalone)	11	1	12
Community: Land/Dune care, research groups, surf clubs	3	4	7
Fisher: shore based recreational fisher	8	3	11
Aboriginal	4	0	4
Passive: walker, swimmer etc	4	4	8
Snorkel/Dive	3	1	4
Spearfish	8	0	8
Surfer	5	2	7
Kayaker	1	1	2

While it is tempting to categorise users into distinct groups this research clearly demonstrates the fluidity of use types. Professional fishers may have entered the industry after a long history of recreational use, or have retired to become avid recreational fishers or spearfishers. Members of conservation groups were also beach fishers, spearfishers, divers and surfers. Shore-based recreational line fishers may also be a surfer or a passive user within the course of a day on the coast. Therefore analysis of the values of the coast is explored across the full breadth of uses and not classified according to user groups.

4. Coastal values

The way in which people value the coast varies enormously. Table 5 categorises some of the values that were encountered through the interviews. This classification of values was adapted from Song et al (2013), who conducted an extensive review of research into values and their relationship to

fisheries governance. Their review identified four value orientations linked to a range of value types, which were used to guide (but not constrain) the analysis of the interview data. Each of these four value orientations are explored in further detail in the following sections.

Table 5: Values of the coast as identified through interviews with users

Broad Value Orientations	Types of values	Number of coding references (ie number of 'mentions' in the interviews)	Number (and percentage) interviews coded for this value
Ideal world: values that are important contributors to the creation of a better world	Peacefulness or naturalness	98	24 (71%)
	Knowledge	58	23 (68%)
	Appreciation of beauty	43	17 (50%)
	Ecosystem conservation	43	14 (41%)
	Freedom	52	14 (41%)
'Good life': Values that contribute to an individual's sense of satisfaction with life	Hedonism (joy, pleasure)	63	26 (76%)
	Secure livelihoods (income or food)	110	25 (74%)
	Achievement (challenge)	55	22 (65%)
	Spiritual wellbeing (religion or spirituality)	56	20 (59%)
Personal wellbeing: values that contribute to a sense of self-worth	Personal connections (relationships with friends and family)	128	30 (88%)
	Knowledge and learning (growing knowledge and understanding or teaching others)	117	30 (88%)
	Health (Self-esteem, fitness & mental or emotional wellbeing)	97	28 (82%)
	Guardianship (eg protector of the environment)	63	22 (65%)
	Benevolence (eg volunteer work, service to community)	41	14 (41%)
Outward aspirations: values that contribute to a sense of connection with nature or community	Tradition or heritage (links with the past)	148	32 (94%)
	Social cohesion (feelings of community connection and unity)	128	31 (91%)
	Attachment to place (connection with specific location on the coast)	57	27 (79%)
	Acceptable practice (conformity)	71	27 (79%)
	Unmediated nature (ability to connect directly with the natural world)	78	24 (71%)

4.1 The creation of a better world

These values are related to a person's sense of how they think the world should be, or what they desire for a better world or society. They involve values that an individual believes are for the common good (Song et al. 2013). For example peacefulness or naturalness was commonly mentioned (71% of interviews) as a value of importance to a large number of users. This related largely to the low population sizes in the study areas and the minimal development compared with more urbanised areas. This was closely related to the desire to protect and maintain the aesthetic and intrinsic natural values of the area which were also linked to the values of appreciation of beauty (50%) and ecosystem conservation (41%). These were often one of the primary motivations for the interview participants to move to that particular section of coast. For example, the presence of constraints to development in their local area (such as national parks and geographical features) were highly valued by some respondents.

the last two mornings I've been over on the beach before sunrise, and I have been the only person on the beach, and that happens regularly. So to have a whole beach, as far as the eye can see, north and south, to yourself, except for you and your old dog, is really amazing. (SIMP_3)

Knowledge was another commonly mentioned value that was considered essential for the creation of better management systems for the coast. This included a desire for improved understanding of coastal processes from a scientific sense as well as the local knowledge built up over years of interacting with the coast and monitoring its changes over time.

And also, on scuba, I'll just get in and have a look around. There's two different dimensions between free diving and snorkelling. Sometimes I'll snorkel, mainly for food gathering, but at the same time I'm still observing what's around and what's happening with the animals. Flora and fauna. I've got a strong background in that regard, so I'm interested in flora and fauna.(BMP 20)

Freedom to use and access the coast was highlighted by some participants as being a prized feature of the coast. For Aboriginal people this may include freedom to make use of the coast as they had done in the past. The coast is a place which holds rich meaning for coastal Aboriginal people, through direct connection to ancient stories and ancestral ties but also more recent stories of adaption and resilience in the face of changes brought about through colonisation. During the post-contact period Aboriginal people were progressively dispossessed of their traditional country, through the expansion of townships, agriculture, industry and forestry (Goodall 1996, NSW Office of Environment and Heritage 2012). The coast remained a haven for many Aboriginal people during those times as it was seen as unproductive or of little use or value to the European settlers (NSW Office of Environment and Heritage 2012). The second half of the twentieth saw significant changes in the way non-Aboriginal people began to value to coast. Increasing mobility, through car ownership, and the rising popularity of the beach as a tourism destination increased demand for coastal spaces for non-Aboriginal people, through tourism, residential and recreational developments. This, along with the expansion of coastal national parks and changes to fisheries regulations throughout the state has significantly changed the way Aboriginal people can use and access the coast, including the loss of some areas that have a long and direct history of use by Aboriginal people since colonisation (NSW Office of Environment and Heritage 2012). This loss of freedom to make use of the coast for cultural was identified as one potential impact of not allowing shore based fishing within coastal Sanctuary Zones.

Well, it's a way of denying us everything that belonged to us you know everything that felt was home, I mean you just can't go there and do anything anymore. (BMP_19)

Despite this there is support for increased protection of sea country and its resources amongst Aboriginal people, as evidenced in the interviews as well as through their ongoing involvement in marine park planning and management. For example the Gumbaynggirr people have actively supported protective measures, including Aboriginal Special Purpose Zones in the SIMP. Conservation of ecosystem values was also commonly raised by non-Aboriginal people as an important aspiration, with Sanctuary Zones often seen as playing a key role.

I think I can say that since it has become a sanctuary zone, it is recovering. In the early days, probably in the seventies, there was quite a lot of life around, and then it started to get fished... Around here you can point to a place without even putting your head under water and say, "That's easily accessible. There'll be nothing there." Sure enough, there isn't. But the sanctuary zones are beginning to recover. (BMP_16)

4.2 The 'good life'

The values within this category are oriented towards individual satisfaction with life – values that improve an individual's enjoyment and appreciation of life, including economic stability, spiritual wellbeing and joy or fun (Song et al. 2013). The coast clearly plays a large role in contributing to people's sense of living the 'good life'. For some the coast provides the most fundamental of values – the provision of income, food to supplement family meals, or livelihood (74% interviews). Aboriginal people in the study areas and along the NSW coast have been actively engaged in employment in industries including fishing, whaling, mining, oystering and tourism (NSW Office of Environment and Heritage 2012). For example, in the first half of the 19th century the majority of the historical observations of the south coast Aboriginal community related in some way to fishing. Aboriginal people were able to use their superior knowledge of fishing to conduct trade with Europeans, exchanging fish for flour, tea or sugar (Bennett 2007). After 1850 the government, through the newly formed Aboriginal Protection Board (APB), began to supply many Aboriginal communities on the south coast with boats, the majority of which were used for fishing purposes, including commercial fishing (Bennett 2007, NSW Office of Environment and Heritage 2012). Employment outside of these maritime industries also facilitated engagement with the coast however – for example on the south coast, seasonal work in the timber and vegetable-picking industries required travel throughout the region, often involving camping on beaches or rivers and living off the sea (NSW Office of Environment and Heritage 2012).

Today the coast provides a range of direct employment opportunities to Aboriginal and non-Aboriginal people, including the professional and recreational fishing industries, tourism activities such as surf schools, beach hire operations and ocean kayaking and diving operations. Indirectly the coast provides a major drawcard to the visitors that drive the retail and hospitality industries of many coastal towns. There were mixed opinions on whether coastal Sanctuary Zones were of benefit or detrimental from the perspective of providing income. Professional fishers and people employed within the recreational fishing industry felt that the Sanctuary Zones undermined their ability to earn sufficient income, while some tourism operators see the zones as an asset.

The coast also provides an important food source for recreational and Aboriginal fishers and the ability to 'provide' food for friends and family was highly valued amongst some interview participants. A number of older fishers talked about the importance of seafood in supplementing the diets of the family when money was short. Young and old fishers valued the act of sharing a seafood meal with friends and family.

> *So I might go out and catch two crayfish, bring back two or three fish, and that will feed the family for two or three days. It sort of subsidises the way I think people should consume. I'm not a big fan of red meat and terrestrial agricultural practices, so ethically I lean toward traditional gathering. (BMP_20)*

One of the most frequently mentioned values of the coast amongst the interviewees were hedonistic values of enjoyment, fun and recreation (76% of interviews), as well as a place where users can test or challenge themselves in the quest to achieve personal milestones, such as surfing a bigger wave, catching a bigger fish or building personal strength and fitness (65% of interviews - listed as 'achievement' in Table 5). Waitt (2008) observed this in his research on young surfers, who equated the sense of pleasure from surfing with drug-taking or orgasm. The ocean for them is also a 'testing ground', a process of testing personal limits and seeking bigger and better adrenalin rushes (Waitt

2008). Similar trends were consistently seen in the interviews conducted for this research across a range of user groups, including shore-based recreational fishers and spearfishers.

> *Swimming in the ocean...the first time I ever caught a wave, a decent wave – it's the first time, really, you actually feel a wave pushing you along on a board, or the first time you stand up on a board, it's so addictive. There's just something about that. I don't know. Because it's random, too, you know? It's not like snow boarding or bike riding, where your terrain's basically the same. Like, you're waiting for that wave, and then you've got to pick the wave...yeah, I love it. And I just love being in the ocean. (BMP_14)*

For Aboriginal people the coast has also provided a source of fun and enjoyment. For example, Christmas camps were a common part of life for Aboriginal people who lived along the NSW coast during the twentieth century. Christmas camps, in places like Mystery Bay within the BMP, were places where Aboriginal people could escape the restrictions of life on Government or missionary controlled reserves. Entire communities would camp together on the beach for weeks at a time, allowing Aboriginal people of all ages to enjoy the coastal environment. These times are remembered fondly as times of fun, freedom and reconnection with kin in the oral histories of Aboriginal men and women within the study areas, and throughout NSW (Dale Donaldson 2006, Kijas 2009, NSW Office of Environment and Heritage 2012).

The coast also provides spiritual renewal to many of its users (59% of interviews). For Aboriginal people time spent fishing and collecting on the coast is a deeply spiritual practice. It provides a chance for people to connect with their ancestors, to teach and to learn about Country. It also provided opportunities for social and community interactions through sharing seafood throughout families and communities (NSW Office of Environment and Heritage 2012). The quote below from a Koori professional fisherman on the south coast illustrates the way the use of the coast is seen as a cultural and spiritual experience and that use of the coast is closely tied to the ability to be in Country, and be a part of Country.

> *I've been a fisherman since I was 15, it's always been a part of my life, I just love it I can go out in the morning throw a net get the fish back in and take them to the truck then come back down to the beach and just sit and watch the water for a while and before you know it it's 5pm, you just blend in it's your country, you just feel relaxed and comfortable. I can't imagine doing anything else. I will die a fisherman. (BMP_17)*

A number of non-Aboriginal interview participants indicated the affinity they felt with Aboriginal people in their love of the coast and the ocean - variously expressed as a feeling of solidarity with local Koori people or a sense of frustration over what they perceived as greater recognition of Aboriginal cultural ties to country. Other interview participants indicated the depth of their feelings of connection to the coast or to their chosen use of the coasts (ie surfing, fishing etc) by equating it with a religion or religious experience.

> *It's a special place..which is part of my soul, and I often explain my feeling about the connection that I feel between myself and the landscape as something akin to what Aboriginal people would talk about. I've got a lot of Koori mates, and we've talked about these sorts of things on a number of occasions, and I sort of...have that same sense with myself. I just feel at home. It's part of me. (SIMP_3)*

4.3 Personal wellbeing

Values in the 'personal virtues' category are values that add to a healthy sense of self, and identity, by contributing to how an individual feels about themselves and how they wish to be seen by the world (Song et al. 2013). Most of the research participants indicated their local beaches and headlands were places where friendships and family bonds were forged through shared experiences (88% of interviews). For example, surfing is an expression of 'mateship' – a way to gain respect from peers and compete against friends. Friendships are forged around a love of surfing, and 'their shared knowledge, language, experiences and codes at particular breaks' (Waitt and Warren 2008). The surfers interviewed as part of this research highlighted the social aspect of surfing as a major attraction to the sport – with time spent in the 'line up' waiting for a wave, or on the beaches, providing valued opportunities to talk, laugh and strengthen bonds with friends and strangers.

> *..all the old farts can gather around the look-out up there and talk about what it was like yesterday and what it's like today and what it's going to be like tomorrow. So, yeah, I sort of socialise at the look-out when I'm checking out the surf. (BMP_6)*

The importance of shared recreation was highlighted by a range of users. Surfing and fishing in particular were identified as sports in which the whole family could participate, and were often activities shared within family groups involving multiple generations. These sports also have a distinct element of mateship, which requires further research effort. Similar to the concept of 'men's shed' (http://www.mensshed.org/what-is-a-men's-shed/.aspx) fishing and surfing provide an opportunity for men to discuss issues of concern in an environment in which they feel comfortable and calm.

> *you might go surfing, or take a long walk on the beach and talk about life, and from my experience, I can assure you...there's a lot of mental health discussion, men's health issues that range from relationships to spirituality...it's an opportunity for a bloke to find a space away from the TV, away from his partner...away from work. So it becomes, you know, we'll call it a safe, open space to share common interest...It's not about the fishing rod or the tackle, it's not about the length of your surfboard. It's about the connectedness between friends, and in this case it's blokes. (SIMP_5)*

The research also highlighted the importance of the coast as a place of learning - somewhere to grow and develop 'wisdom' (88% of interviews). This is particularly important amongst those Aboriginal people for whom the coast provided the context for passing on knowledge about culture, tradition and learning (NSW Office of Environment and Heritage 2012). The coast as a place of learning was also highlighted by many other users, including the role of exploration of the natural world as a way of learning about the ocean, and the life within it.

> *When our grandchildren were little..we would take them down there in the morning with their buckets and their spades and whatever else they wanted...and we'd spend the whole day there...Like most kids, they would build these forts and things like that, and try to defy the ocean coming in. They thought they could stop it! And they'd be really disappointed when they went back the next day and their forts had all gone, and they'd have to start the whole process again!...We'd spend hours sort of investigating things they'd found on the beach, and maybe have a little walk into a rock pool and investigate things down there.(BMP_13)*

A number of fishers indicated an 'apprenticeship' through which fishers learnt to hone their skills and build their knowledge of fish, fishing and the marine environment generally. They suggested that most fisher's first experiences of fishing, or of teaching fishing, began in the still waters of lakes, rivers, creeks and estuaries, often off jetties or out of small boats. Beach fishing requires different skills and equipment and often involves larger fish. Beach-based fishing therefore represents another stage of learning, however it remains an accessible means of fishing to all regardless of age, economic status or background. Rock fishing represents greater challenges again, and a higher level of danger, with different headlands regarded as having different levels of risk. Rock fishing is one of the most dangerous sports in Australia, accounting for 74 deaths between 1999 and 2000 (Royal Life Saving Society - Australia 2012). Therefore rock fishing necessitates learning about wave movements and developing the ability to 'read' the ocean, often beginning at safer more accessible locations and moving on to more remote or higher risk areas as knowledge and confidence grows. Similar stages of learning were discussed by spearfishers and surfers, beginning in calm and safe locations and 'graduating' to more challenging environments where both the risks and rewards were considered greater.

> *Well, when you're young you can't afford a boat…and yeah, you've got to leg it, you use your feet to go...For me, it was my apprenticeship. We used to fish all sorts of rocky headlands in Sydney from headlands within the Harbour…I fondly remember my fishing exploits there…And they teach you a lot. (SIMP14)*

For a number of the participants interviewed moving through these stages of learning about fishing, surfing and spearfishing was part of a rite of passage into adulthood. This appeared to be particularly important in the memories of the men interviewed, as young boys explored their limits and developed their sense of masculinity as they grew into adults. Modern day 'initiation' ceremonies involved jumping from high rocks or bridges, clambering down rocks to fish dangerous rock platforms, surfing bigger and bigger waves and spearing or catching bigger fish, usually in the company of mates or older males and without the direct supervision of parents or other adults.

> *For this area here, for Mum and Dad, it was easy for them to say, "Don't go right," because right's town, "Go left." Left is the estuary and the national park, and now sanctuary zone. For my brother and I, it was either snorkels and goggles and a spear, or it was buckets and fishing line. (BMP_7)*

Concerns over the loss of particularly important sites of learning or initiation were mentioned through the interview process highlighting that some users felt this value was potentially threatened by marine park Sanctuary Zones. Participants highlighted the importance of having safe, accessible locations for beginners as well as the more challenging and remote locations whereby fishers can test their limits and experience a more 'wild' fishing experience.

Several of the research participants (82% of interviews) discussed the way in which the coast assists in their mental wellbeing, or their general physical and mental health. The coast was often represented in the research interviews as a clean and healthy place. For Aboriginal people the health benefits of coastal access are closely tied with the harvest and consumption of seafood. Time spent fishing, swimming and collecting shellfish and crustaceans was time to forge cultural bonds with kin and country, maintain fitness and importantly gain access to a low cost and readily available food source. During the twentieth century the lives of Aboriginal people were heavily controlled and regulated through the Aboriginal Protection Board, or the missions, and access to seafood provided

independence by supplementing rations, providing a sole source of food or a source of income (NSW Office of Environment and Heritage 2012).

Non-Aboriginal users also highlighted the health benefits of fresh, locally harvested seafood. For some fishers (spear, shore-based and professional), the ability to provide themselves, their friends and family or the community with a clean, unprocessed, natural source of protein was highly valued.

> *We have the…cleanest, naturally-sourced, original product that you can feed your children, and we're now forced to feed them stuff that's being forced-fed, forced-grown...Why, when we've got a natural product sitting there going to waste? (BMP_4)*

The health value of the coast extends beyond the nutritional value of seafood. The coast has long been seen as a place in which people are able to freely engage in activities which improve physical and mental health. In the growing city of Sydney, surf bathing was considered healthy from at least the start of the twentieth century (Ford 2010). Today board surfing remains some of the most popular uses of the Australian coast (Ryan 2005). Surfing is noted for developing fitness, agility and body image (Waitt 2008). Many interview participants discussed the fitness benefits or restorative power of surfing and other coastal recreational pursuits – including walking, running, snorkelling and spearfishing. However, even more frequently the participants mentioned the benefits of the coast on mental health and wellbeing. The ocean environment was commonly cited as a mood enhancer, and as a place of relaxation or reflection.

> *without trying to sound like too much of a hippy, I have this thing about the salt water, and (my husband) knows that every time I'm in a bad mood I'll go for a swim or a surf, and as soon as I put my hair under the water, I'm calm again. (BMP_11)*

Finally, the results of the research interviews indicated the importance of the coast as a site of volunteer work (41% of interviews), where compassion and benevolence is shown for the non-human world (through vegetation and weed management, rubbish removal, dunecare works and wildlife management) as well as the human world (through surf lifesaving and marine rescue organisations). Many of these volunteers dedicate significant amounts of time and energy into their chosen activities, indicating the value of an empowered and impassioned community.

> *So as soon as something comes up...which people don't like, whether it's good or bad, you normally get a group forming. I think Australians are very environmentally aware and very defensive of their local environment, which is good. It may be for better or for worse, but at least it makes the…government just think twice: is this suitable for this area, or is it not suitable? (BMP_3)*

While there were many examples of formal involvement in coastal protection organisations, in 44% of the interviews the participants indicated they regularly monitored their local coast for changes of concern, such as erosion, weeds, introduced pests or changes in species diversity or abundance. In 65% of the interviews the participants indicated other informal acts of stewardship of their section of coast. This included confronting or reporting illegal users, such as poachers, picking up rubbish or lobbying government over proposed developments. Some fishers highlighted the value of having a presence in more remote locations in order to maintain a watch over illegal activity and encourage voluntary compliance.

4.4 Outward aspirations

Values relating to 'outward aspirations' are oriented towards a desired relationship with the 'outside' world, both human and non-human. They are values that contribute to a sense of connection with nature or community and guide the way people behave in particular settings. Tradition emerged as a particularly strong value of importance to both Aboriginal and non-Aboriginal users (94% of interviews).

Tradition is central to the values that Aboriginal people place on the coast. As previously mentioned, many Aboriginal residents of both the north and south coasts have memories of a long history of use of the coastal strip for subsistence, family gatherings, and encampments for leisure or work. These encampments included formally recognised reserves or less formal areas of significance such as fringe camps, pastoral camps, and beach camps used while travelling, fishing or holidaying (such as Christmas camps) (NSW Office of Environment and Heritage 2012).

> *I think our family is attached to fishing all up and down the coast so no matter where they put these Sanctuary Zones it really affects us. I can't think of one area up and down the coast from here to Eden where we haven't camped and fished and lived. (BMP_19)*

Non-Aboriginal interview participants also indicated a strong sense of connection to the coast. Often this sense of heritage and connection is linked to memories of a childhood in which the ocean played a dominant role. The 'rite of passage' from childhood to adulthood is a period in which the coast played an important role in the lives of many of the research participants, with key events marked out by time on the beach – playing in the sand as kids, teenage exploits, forming romantic attachments, and as time goes on introducing children and grandchildren to treasured coastal experiences (Stocker and Kennedy 2009).

> *I had a brother, four cousins about my age, and we would just spend days up in the sand dunes...and then a bit older up there, having a fag or two! Out of the old man's cupboard, or whatever! All of that growing up stuff – getting interested in girls, when people came in to camp at Chrissie – all of that are just fantastic memories. (SIMP_3)*

The beaches and headlands of the two study areas are also clearly a place of social interaction and community development (91% of interviews). Interview participants highlighted the social aspects of the coastal experience, including the ability to talk with other users. Interaction with strangers appears to be encouraged by uses that provide a mutual point of interest. Dog owners are encouraged to interact through their dogs, walkers stop to discuss the fishing with shore based fishers, surfers discuss the weather with passing strangers.

> *It's a very social time, because we were walking a dog for a friend, and you stop and you talk to every other dog owner, and you know all the dogs by name, and you pat them all! It's just a great – because we don't have a pub or a shopping centre or anything like that, that's where you meet everybody. And most of them – a lot of the really good friendships that I've made are because I've met people on the beach. (BMP_13)*

Brooks (2010) refers to three important forms of social capital that helps to build community resilience. These are 'bonding' networks, 'bridging' networks and 'linking' networks. Bonding networks are relationships between people with the same values and norms that assist in people feeling supported and included within the community. Bridging networks expose people to new ideas,

from different backgrounds or with different approaches or values. Finally linking networks provide access to power and decision making. While these networks are usually understood as formal linkages between people, eg through industry or community organisations and attendance at meetings and workshops, this research suggested that these networks are also strengthened, formed and moulded by informal relationships facilitated by mutual interest in the coast. Many of the research participants talked about informal bonds formed by shared interests in surfing, fishing, diving or other coastal activities. These bonds made them feel a part of the community and their sense of identity was strongly linked with these 'bonded' networks (Brooks 2010). However, regular visits to the coast also created exposure to different types of use and users, challenging preconceptions and exposing people to different values. Segregating uses, such as fishing, through zoning schemes may have the potential to undermine some of these bridging networks if not carefully managed. Professional fishers working on the coast highlighted the way in which operating in a highly visible coastal environment, such as beach hauling, led to negative interactions with other beach users who perceived their methods to be environmentally damaging. Yet they also valued the opportunity to educate interested users about their methods and their history of use and impart their knowledge about the marine environment. Similarly, community groups engaged in beach care and birdwatching activities gained direct access to people through their work on the beaches that allowed them to educate and inform a range of beach users who may otherwise not have had exposure to these messages.

> What we've found works really well when we are down monitoring the birds is to have a telescope down there, and to say to people, "Would you like to have a look?" and that's been very successful, particularly with kids. They have a look through…And once you get people's interest focused in on that, you then seem to start to interact more naturally with them, just talking about the birds. (BMP_8)

The interviews revealed complex and unwritten rules of acceptable behaviour around use of the coast which users are expected to conform to (79% of interviews). These rules govern the way users interact, including the way in which preference is given to some users over others. Shore-based fishers and surfers coexist by occupying different spaces on the beach – the surfers on the sand banks and the fishers in the sand gutters. On headlands spearfishers and snorkelers are expected to respect the space of more static rock based fishers by giving them a wide berth. For surfers the phenomenon of 'localism' was recognised in the study areas, albeit to a lesser extent than in the more crowded waves of metropolitan areas (Waitt and Warren 2008). This strong attachment to place, however, was common amongst a range of users (79% of interviews). For fishers, what is deemed 'acceptable behaviour' has increasingly moved towards a sustainability approach. As indicated by many of the interview participants, the way people fish has changed significantly over time, with increasing emphasis on 'responsible' or 'sustainable' fishing methods. This includes a shift in attitudes from 'taking it all' to 'catch and release'(Frawley et al. 2012). Keeping large numbers of fish, or undersized fish, is now frowned upon by most fishers, including those within the two study areas.

Finally, the coast also provides users with a relatively unrestricted and unrestrained opportunity to connect directly with nature (71% of interviews). Many interview participants recounted direct experiences with marine wildlife, including whales, dolphins, sharks, stingrays, and large fish as amongst their favourite memories of the coast, indicating that 'wild' encounters of this kind are valued highly.

> It's better than an aquarium, sitting there sometimes, because you've got the classic South Coast sting-rays – big, smooth-spotted sting-rays, up to two metres wide… So, for (my kids) – if they go to the aquarium at Manly or in Sydney, it's actually quite disappointing, because over here

they're used to...getting a flathead that a fisherman's just cleaned, chuck it in the water and a sting-ray comes over, and they eat it. And the cormorants and the pelicans all fighting for the scraps... You make a decision to live here because of those kinds of experiences. (BMP_7)

5. Images

Values assist in understanding the importance individuals place on different aspects of the coast and its management (Song et al. 2013). The way in which an individual 'sees' the world is also likely to have a strong influence on how individuals prioritise management approaches and interventions, such as marine park Sanctuary Zones. Analysis of the interview data revealed a number of themes in the way participants 'saw' the coast, particularly in relation to the perceived threats to the coast (Table 6).

Table 6: Images of the coast as identified through interviews with users

Images of the coast		Number of coding references (ie number of 'mentions' in the interviews)	Number (and percentage) of interviews coded for this value
Locally threatened - concerned about specific local threats.	*Total**	*253*	*32 (94%)*
	Inappropriate development/management	67	21
	Illegal fishing (poaching or in SZs)	43	17
	Local overfishing/harvesting	34	16
	Erosion	29	9
	Pollution	28	12
	Rubbish	24	12
Globally threatened – concerned about less tangible or visible threats	*Total**	*67*	*20 (59%)*
	Increasing population	25	14
	Global overfishing	24	9
	Climate change	10	6
Socially threatened - concerned about the behaviour of other users		*82*	*20 (59%)*
Pristine – relatively unconcerned about threats, or threats of minor concern		*37*	*19 (56%)*
Resilient – self healing		*16*	*10 (29%)*

*NB only the most frequently mentioned are included in this table, therefore totals are more than the sum of the threats listed

Most (94%) of the interview participants had some concerns about local threats, usually relating to highly visible threats such as overdevelopment, illegal fishing and erosion. Often these concerns were considered minor by the participants who largely felt that their local area was in good condition, with minimal concern over threats (56%). More than half the participants (59%) were concerned with less visible or tangible 'global' threats such as global overfishing, increasing population or climate change.

While this, and other similar research, suggests there are huge social benefits provided through interactions between coastal users it was also clear that the coast can become a place of conflict, especially when the practices and types of use clash. 59% of the interviews included reference to concerns about other users or types of use of the coast. Conflict between users occurs when the unwritten codes of acceptable behaviour are not adhered to or respected – possibly due to different interpretations of what is or is not acceptable. For example, privately (off tape), many of the interview participants expressed concerns about the resource use practices of migrants of European, Asian or Islander backgrounds, particularly related to the harvesting of invertebrates from intertidal areas, catching large numbers of fish or undersized fish. The research of Frawley (2013) has found that keeping large numbers of fish is now frowned upon by most fishers. The actions of migrant communities may therefore be seen as inappropriate because they clash with these dominant views of

sustainable fishing practices. The reluctance, however, to state these views as part of the formal interview suggests they were concerned that their comments would be perceived as racist.

Discontent with jetski riders was also common as they were seen as impacting the ability of other users to enjoy a 'natural' experience – one not disturbed by the noise and smell of jetskis. This is a clear example of how different ways of valuing the coast can clash if one type of value directly impedes or impacts upon the other.

> *I hate the noise! I hate the smell! And I hate the behaviour of most people who do it. Yobbos. And it's selfish, because you go out there on a board – OK, you have to share waves with other people, but your impact as a recreational user is relatively small. Your footprint's small. But those bloody jet skis – the noise – and it's one of those irritating noises. Like a buzzing bee, a mosquito. You hear them go around – and they smell. You get the smell of the fumes. I hate them. (BMP_6)*

6. Principles

Principles refers to the governance approaches that individuals support or subscribe to (Song et al. 2013). A range of principles were identified within the interviews, guided by Songs analysis, as outlined in Table 7.

Table 7: Governance principles through interviews with users

Governance principles	Number of coding references (ie number of 'mentions' in the interviews)	Number (and percentage) of interviews coded for this value
Threat based management: decision making based on identified threats	99	23 (68%)
Environmental stewardship: conservation and use compatible	100	21 (62%)
Balance of objectives: balancing conservation and community needs	64	19 (56%)
Alternative knowledge: mistrust of experts, greater requirement for consideration of human welfare and values	83	18 (53%)
Equality: equal treatment of all users	62	17 (50%)
Expert led planning: respect for and support for decision making abilities of policy makers or scientists	28	15 (44%)
Cultural and traditional use (rights)	73	15 (44%)
Conservation 'ideals': no take areas/ national park model as ideal form of protection	40	14 (41%)
Conservation through education: greater education required to enhance conservation and convince detractors	19	8 (24%)
Responsibilities over rights: dismissal of concerns about use rights in favour of need to conserve marine life	21	8 (24%)
Precautionary based management: managing according to (ideal) conservation objectives	6	4 (12%)

When asked specifically about the amnesty on shore based recreational fishing within Sanctuary Zones, many of the participants had in-principle objection to the, concerned it undermined the integrity of the marine park system, or had caused confusion in the community. For example, a number indicated that they had witnessed people fishing in other Sanctuary Zones not covered by the amnesty. These participants often expressed support for no take zones as the ideal and best means of protection (41%).

I think those zones should remain sanctuary zones, full stop. So, I think there's a place for those to be sanctuary zones, but there's areas of nil extraction. So you can look at those as recovery points for flora and fauna, and perhaps a bit of regeneration may occur if some of that extractive pressure is taken off. (BMP_20)

Despite these in-principle objections, the most widely supported governance principle expressed in relation to this question was a decision making approach based on addressing specific threats (68%), with most of the participants indicating that they did not believe shore-based fishing (particularly beach-based) was a major threat to marine conservation.

Look, it (the amnesty) doesn't...worry me too much because, as a shore-based fisho, it's not an overly destructive thing. Like, occasionally some people will probably overcook it a wee bit, but on the whole, you know, shore-based fishing is pretty reasonable. Once you start to introduce boats it becomes a little bit more of an attempt to catch more fish, and when you've just done forty bucks in fuel, there's some incentive to take home some more fish. (SIMP_8)

The key point of division relating to marine parks, and particularly Sanctuary Zones, occurs between governance principles of 'conservation ideals' (coded in 14 interviews), which represents sanctuary zones as an ideal form of ecosystem protection, and 'community and traditional use' (coded in 16 interviews) which advocates the 'rights' of the local community to continue to access and use the coast. These two principles, and the views of the people that subscribed to them, were therefore explored in greater depth. When cross-referencing the relationships between the different principles, it was clear that there were some key differences and similarities amongst the participants (Table 8). Those that subscribed to governance principles of 'conservation ideals' also frequently mentioned the need for expert-based planning, the maintenance of ecosystem integrity and function and the need for greater education to inform people of the worth of no-take areas. Those that subscribed to governance principle of 'cultural and traditional use' tended to also mention the need for the community to have a greater role in planning and often expressed mistrust of expert-led processes, preferring their own or other alternative knowledge systems which they drew on to make their judgements (categorised as alternative knowledge).

Table 8: Matrix of principles identified through interviews with users – cross referencing those interviews which indicated support for the principles of 'conservation ideals' and 'cultural and traditional rights' against other governance principles identified in the analyses

Conservation ideals		Cultural or traditional use	
Governance principle (in order of frequency)	Number/ % of interviews (of 14)	Governance principle (in order of frequency)	Number/ % of interviews (of 16)
Ecosystem integrity and function	10 (71%)	Threat based management	14 (87%)
Expert led planning	9 (64%)	Environmental stewardship	14 (87%)
Threat based management	9 (64%)	Alternative knowledge	13 (81%)
Balance of objectives	9 (64%)	Equality	12 (75%)
Environmental stewardship	8 (57%)	Balance of objectives	12 (75%)
Education led conservation	7 (50%)	Expert led planning	7 (44%)
Equality	6 (43%)	Ecosystem integrity and function	7 (44%)
Alternative knowledge	4 (29%)	Conservation ideals	4 (25%)
Cultural or traditional use	4 (29%)	Education led conservation	2 (12.5%)
Precautionary principle	3 (17%)	Precautionary principle	1 (6%)

7. Discussion – values, images and principles

The division of governance principles between 'conservation ideals' and 'cultural and traditional use' appears to be a key point of conflict in the debate about marine parks, and particularly Sanctuary Zone protection. As previously mentioned 14 interviews were coded as subscribing to the 'conservation ideal' principle and 16 to the 'cultural and traditional use' principle. In three cases interview participants indicated support for both principles and were therefore present in both groups. In order to examine the difference between the two groups in further detail these interviews were classified as either 'conservation ideal' or 'cultural and traditional use' according to the principle they predominately discussed (ie which principle they mentioned most in the interview). This resulted in 13 interviews prioritising the conservation ideals and 14 interviews prioritising cultural and traditional rights. Table 8, indicates the values and images that were most significant to each of these two groups and highlights where their images tended to diverge. These points of divergence were identified by comparing the coding references and the number of participants across the two groups. It identifies some key trends that would be worthy of further investigation using a larger sample size.

Table 8: Matrix of images and values against governance principles: Conservation ideal and cultural and traditional use with areas of divergence highlighted by different colours.

Images and values		Conservation ideal		Cultural and traditional use	
		% interviews – (of 13)	Coding references	% interviews – (of 14)	Coding references
Images	Locally threatened	13 (100%)	108	13 (93%)	105
	Globally threatened	10 (76%)	44	9 (64%)	27
	Socially threatened	9 (69%)	38	8 (57%)	32
	Pristine	6 (46%)	10	9 (64%)	17
	Resilient	3 (23%)	3	4 (29%)	9
Values: Ideal world	Peacefulness or naturalness	11 (85%)	44	9 (64%)	43
	Knowledge	9 (69%)	24	11 (79%)	31
	Appreciation of beauty	10 (77%)	26	6 (43%)	16
	Ecosystem conservation	10 (77%)	34	5 (36%)	14
	Freedom	3 (23%)	12	8 (57%)	35
Values: Good life	Hedonism	9 (69%)	19	12 (86%)	34
	Secure livelihoods	8 (62%)	18	11 (79%)	62
	Achievement	8 (62%)	20	10 (71%)	27
	Spiritual	9 (69%)	26	9 (64%)	29
Values: Personal wellbeing	Personal connections	11 (85%)	46	14 (100%)	77
	Knowledge and learning	11 (85%)	36	14 (100%)	67
	Health	11 (85%)	34	13 (93%)	61
	Guardian	11 (85%)	38	7 (50%)	17
	Benevolence	8 (62%)	21	2 (14%)	3
Values: Outward aspirations	Tradition	11 (85%)	50	14 (100%)	88
	Social cohesion	12 (92%)	47	13 (93%)	50
	Attachment to place	11 (85%)	23	12 (86%)	28
	Codes of practice	11 (85%)	26	11 (79%)	34
	Unmediated nature	12 (92%)	41	9 (64%)	21

The participants who subscribed to the 'conservation ideal' governance principle also generally indicated values relating to natural interactions, appreciation of beauty and the protection of nature. There appeared to be a slightly greater level of concern about less tangible 'global' threats amongst this group, including climate change, increasing population and global overfishing. This group also tended to be more directly involved in conservation projects such as volunteer dune care, wildlife management or research groups, indicating the high priority they give to ecologically focused activities. This suite of values, images and principles appears to be consistent with an 'ecological'

cultural model which gives primacy to ecological function and connectivity, prioritising these objectives over other social and economic objectives (Thompson 2007, Stocker and Kennedy 2009). This research suggests that the 'ecological' cultural model also elevates 'no take' or national park style protection as the highest and most ideal form of protection of the marine environment.

The participants who subscribed to the 'cultural and traditional use' governance principle also generally indicated values relating to social interactions, relationships, personal growth, health and wellbeing, learning and fun. While this group had a range of concerns over threats to the local marine environment they tended to reject the Sanctuary Zone as the 'ideal' or best response in all situations, with interviewees referring instead to fishing regulations as alternative means of managing some of these threats. In addition to regulations, appropriate behaviour is determined by social norms of the day, as illustrated through many examples in the interviews, which have increasingly shifted towards a sustainability focus.

> *So, we've got a whole change in people's perception of what they need to do to look after the environment, and how they use and interact with it, yet we've been so overly, overly regulated that it's removing our ability to maintain our cultural rights to go and participate and use what we've got. It's eroding, you know, the traditional Australian way of life, essentially. (SIMP_11)*

This suite of values, images and principles appears to be consistent with a 'community' cultural model, which prioritises the coast as a place of social interaction and community use and emphasises the importance of traditional and cultural use of marine resources to local communities, both Aboriginal and non-Aboriginal (Thompson 2007, Stocker and Kennedy 2009). In general this group of participants supported the amnesty on shore based recreational fishing. Many of the interview participants who employed the community cultural model were suspicious or cynical about the motivations or reliability of an 'expert' driven process. They felt planning processes should draw on and make use of alternative knowledge systems, such as the practical knowledge of fishers. Equal treatment of all users was also a commonly encountered principle within the community cultural model.

> *I find it offensive that people sit in offices that have done a few ecological studies or...and have read a lot of books and have learnt a lot at universities, telling us how we should manage these ecosystems, and they don't know them intimately. They might know some technical aspects more intimately, but practically, they just don't understand. They just don't get it.(SIMP_14)*

This research therefore suggests that the dominant cultural models being employed amongst the research participants were the 'ecological' and 'community' models. While the sample size for this project was not sufficient to make definitive statements about the extent to which these cultural models are employed within each community, these trends are worthy of further exploration and inquiry and provide important insights that assist in decision making and community engagement exercises. The ecological and community models can, and do, come into conflict when community objectives clash with what is considered best for ecological process and ecosystem health (Stocker and Kennedy 2009). This is clearly the case in relation to Sanctuary Zones within marine parks. Table 8 indicates that the main sources of conflict around coastal Sanctuary Zones are not related to *different* values, images or principles, since many of these are shared across a range of users and across both cultural models. Rather it appears to be influenced by differences in the way these values, images and principles are prioritised. The following sections will focus on the key points of division between these two cultural models before focusing attention on areas of consensus and opportunity.

7.1 Areas of conflict between cultural models

7.1.1 'Use' versus 'protection'

This research indicates that many who subscribe to the 'community' cultural model place a high value on extractive uses. Yet it also highlight that a section of the community, those who adhere to a 'ecological' cultural model, place an equally high value on knowing there are areas which are free from extractive use. There is little doubt that fishers gain comfort, pleasure and health benefits from their recreational and professional activities. Many coastal users, however, including both fishers and non-fishers, gain a feeling of comfort and peace from knowing that there are areas that are 'protected'. The importance of no-take protection lies at the core of the 'ecological' cultural model, therefore support for Sanctuary Zones is high amongst the section of the community who employ this model. The link between the 'ecological' cultural model and the value of 'benevolence' highlights the important work done by this section of the community in caring for our coast in practical and tangible ways. These individuals and groups gain encouragement from seeing the results of their work and from a feeling of satisfaction that they are 'making a difference'. Supporting their efforts through coastal management involves ensuring the aspects of the coast they value the most are maintained and protected. The appropriate implementation of Sanctuary Zones along the coast appears to be an important component of this.

Those users who employ a 'community' cultural model are motivated by a desire to maintain the utility of the coast for cultural or heritage use. They emphasise the importance of fishing, spearfishing, diving, surfing and other marine based activities in their own lives and the lives of their friends, family and the wider community. Maintaining access and use of the coast is also critical to maintaining a unique beach culture which encourages learning about the marine environment through direct experience, supports mental and physical wellbeing of citizens and develops and grows community bonds. Selecting appropriate locations for Sanctuary Zones on the coast and managing their use therefore requires a complex social and ecological balancing act between these competing, but not mutually exclusive, objectives.

7.1.2 Heritage values and the 'rights' debate

The level to which restrictions on the use of the coast were viewed as acceptable varied amongst participants but the most passionate resistance to Sanctuary Zones came from those who tied the continuation of fishing to their right to use the coast and continue family traditions associated with this use. The 'right' to access the coast freely is vigorously defended within Australia and has a history going back to at least the 1860s in Sydney (Stocker and Kennedy 2009, Ford 2010). The growing popularity of surf bathing amongst the working class residents of Sydney in the late 19th and early 20th centuries led to pressure on Governments to ensure Sydney beaches had free and open access to all (Ford 2009, 2010). This same attachment to the rights of Australians to free access to the beach led to rejection of large scale infrastructure that impeded public access or imposed price restrictions on its use – such as the public fun parks and aquariums popular in Britain and the United States (Ford 2009). As a result Australia has a largely unmodified and 'natural' coastal environment, with a preference for development set back from the beach and in public ownership. To this day overdevelopment near beaches and commercialism of beaches themselves are not deemed by the broader community to be appropriate uses of the coast (Stocker and Kennedy 2009, Ford 2010).

The shared belief in this right of free access has traditionally extended to a shared understanding of what are appropriate ways to use the coast and beaches. Older activities such as fishing, surfing, swimming and snorkelling are generally agreed to be appropriate as long as they are conducted within the accepted models of appropriate behaviour. Newer activities, such as jetskis, are more challenging. All of these ideas are embedded in a long history of coastal use and access in NSW (Ford 2009). However marine parks have essentially added a new dimension to this debate by introducing a changed understanding of the appropriate use of the coast which involves restrictions on some previously accepted activities, namely fishing. It is inevitable that this will create conflict and resistance from some sections of the community. Resistance to restrictions on uses are not unique to fishing, however. In Sydney, a previously amicable relationship between surfers and surf lifesaving clubs began to deteriorate in the 1960s in response to attempts by local councils to regulate surfing through a registration system whereby non-surf lifesaving club members were required to purchase an annual license and beaches were demarcated into swimming and surfing areas (Booth 1994). Today regulations which segregate surfing and swimming areas are largely accepted by the community indicating that community attitudes are able to evolve when the situations demands.

7.2 Areas of opportunity

While the divisions and areas of conflict outlined above may appear intractable, this research points to some areas of consensus that may provide opportunity for negotiation and compromise. For example, one area which appeared to have considerable support in relation to the management of shore based recreational line fishing was decision making based on threats. Despite concerns over threats to the integrity of the Sanctuary Zone system, and worries about global threats, those people that subscribed to a predominately ecological model of the coast appeared to have faith in the collective wisdom of science and policy experts. Therefore a rigorously scrutinised and scientific evaluation of the threats to the coast is likely to be influential in their level of acceptance of management decisions.

Those who subscribed to a community model were also concerned that management practices be established to manage threats. Their lack of trust in 'experts' or the scientific community in particular and the desire for the greater integration of alternative forms of knowledge indicates that additional effort is required to engage these stakeholders in planning processes. This research suggests that communication with this group is most likely to be most effective when it taps into accepted ideas of appropriate behaviour from within their own model rather than from external regulators, as explained by one research participant:

> One of the best things you can ever do, explore a headland! And if they're exploring a headland there's a sign saying, "The government department discourages you from stepping on native species, or from coming too close to the dangerous spot," which is all very well, but the experience is diminished, and so there is that...fine balancing act between how you communicate that, and it actually is best communicated through local groups...if the sign is put up in a prominent place that says, "Your local fishing club reckons that you blokes should think about the impact you might have if you're stepping on...invertebrates," signed off "Harry the Fishhead", it'll be a thousand times more effective.

Engagement with this section of the community therefore must go beyond consultation of expert derived plans to a greater level of involvement in the development of objectives and management responses. The development of a threat and risk assessment approach to marine park planning, as proposed by the NSW Government, will therefore require not only an 'expert' led assessment of risk but involve local communities, including Aboriginal communities, in discussion about their

perceptions of threats and their ideas about appropriate responses to them. The integration of these two approaches to planning is a challenge that will require a transparent and inclusive methodological approach that does not elevate or prioritise one form of knowledge or one cultural model over another.

Acknowledging the rights of Australian people to make use of their natural resources does not imply that this access should not be subject to reasonable restrictions. Instead it confers considerable responsibility on those users to ensure their use does not impede the rights of other users, including future generations. The shift in environmental consciousness amongst recreational and professional fishers in the past few decades has, at least in part, been generated from within the fishing community, demonstrating a certain willingness and ability to rise to this challenge (Frawley 2013). Stocker & Kennedy (2009) suggest that coastal policies need to integrate community and ecological cultural models with economic considerations in order to create a new 'sustainability' model of the coast – one that recognises the importance of protecting and maintaining biological values without excluding people and their unique cultures, traditions and economies. The degree to which the research participants in this study shared key values indicates there is significant scope for this in a multiple use marine park system which has the capacity to cater for the preferences of both the community and ecological cultural models.

8. Implications for management: shore based recreational fishing in Sanctuary Zones

8.1 Beaches

This research suggests that beaches provide an opportunity for achieving community consensus in relation to the management of shore-based recreational fishing. Those participants who primarily favoured the 'ecological' cultural model were advocates of the importance of Sanctuary Zones yet most acknowledged that shore-based line fishing was unlikely to result in significant threats to marine biodiversity on open beaches. Similarly, those who subscribed to a community model largely rejected the idea that recreational fishing from beaches was a threatening process. If this view is reflected in the ecological assessment of the coast this provides significant scope for an act of good will which considers alternative means of managing key threats to open beach areas (other than Sanctuary Zones) within marine parks.

The main potential area of concern that may arise from a decision to allow shore-based recreational line fishing from all marine park beaches is related to equity between users. For beaches these concerns are likely to be concentrated amongst boat-based recreational fishers and professional fishers who make use of the beach environment. Decisions relating to these types of use are outside of the scope of this paper and will need to be considered in a separate, transparent consultation and decision making process.

8.2 Headlands

The interviews indicated that headlands are seen as a more complex social and ecological environment and therefore require a more in-depth and integrated examination of the ecological, social and economic threats and benefits of allowing shore-based recreational fishing. A number of adherents to the 'ecological' cultural model held greater concerns in relation to headlands due to their higher biodiversity and habitat values. These concerns would need to be addressed and communicated

through the scientific ecological risk assessment process. This research indicates that the primary threats to social values associated with *allowing* shore based recreational fishing from headlands may include:

- Ecosystem conservation: the more complex ecosystem values of headlands, including their importance for a range of marine wildlife, will mean that weakening of Sanctuary Zone restrictions is likely to result in disillusionment and disappointment amongst people who value no take areas as an ideal method of protection.
- Equity: Perceptions of inequitable treatment of some users groups (shore based line fishers) over others (spearfishers, boat based fishers, professional fishers).

Those that adhered to the 'community' cultural model highlighted the importance of a diversity of experiences provided by different headlands which cater for different levels of learning and development of knowledge around shore based line fishing and spearfishing. The social threats of *not* allowing shore based fishing will therefore vary from site to site according to their accessibility, physical or geomorphological features and their social importance. Therefore these impacts will require examination on a case by case basis in conjunction with a rigorous ecological risk assessment. The *potential* primary social threats of *not allowing* recreational shore based fishing from headlands may include:

- Impacts on tradition and culture: For Aboriginal people this may involve cumulative impacts (along with fisheries regulations, national park restrictions and urban development) on the ability for Aboriginal people to use and access the coast to practise cultural fishing and share seafood resources amongst kin. These impacts may include additional limitations on the ease by which Aboriginal people can make use of seafood, with many feeling this is having significant health implications for Aboriginal coastal communities (Voyer et al. 2013). For non-Aboriginal people this may include loss of sites that are important areas in the traditions of their family and friendship networks.
- Impacts on sites of learning: these may include the loss of 'safe' locations (depending on exposure to different sea and wind conditions) for learning fishing and diving skills or 'initiation' sites, particularly for young males developing their sense of masculinity.

9. Comparisons with on-line survey

This research was conducted in conjunction with an online quantitative survey which resulted in 6,607 responses. Two distinct groups were targeted for feedback:

1. Open online survey including conservation groups, commercial fishers, marine scientists, scuba divers, tourism operators and boating groups
2. Recreational fishers.

The results of this survey suggest that the respondents to the survey who were *not* recreational fishers were predominately adherents to the 'ecological' cultural model. 59.6% of these respondents indicated that they believed the enforcement amnesty should be lifted in all ocean beach and headland sanctuary zones (that is the ban on all types of fishing in the Sanctuary Zones should be re-instated) compared with 12.8% of targeted recreational fishers. Of the recreational fishers 61.1% indicated that the enforcement amnesty should remain in place for now. This suggests a greater alignment with the 'community' cultural model amongst this group. These results should be treated with caution as the survey was not designed to directly address or test the findings of the research presented in this report,

therefore the results are not directly comparable. In addition our research points to the fact that a number of fishers interviewed subscribed to the 'ecological' cultural model and therefore making generalisations about dominant cultural models according to use type may be problematic without further research into this area. Despite this, analysis of the online survey does highlight a number of consistencies with this research that support and point to the validity of its findings. These are listed below:

- The large numbers of male recreational fishers who responded to this survey points to the links between fishing and masculinity which is worthy of further inquiry.
- Those within the 'non fisher' category were more likely to be involved in educational activities and Coastcare activities, including Clean up Australia Day supporting the finding in this research that the 'ecological' cultural model was linked with values of benevolence (or volunteering).
- Those within the 'non fisher' category were more likely to highlight 'natural beauty' and 'seascape' as aspects of the coast that made it special for them, consistent with the natural values preferred within the 'ecological' cultural model.
- Those within the 'fisher' category were more likely to highlight values relating to the utility of the coast such as 'conditions suitable for my use' and 'safe and protected' as aspects of the coast that made it special for them, consistent with the use values of the 'community' cultural model.

Future research could further test the links between values, images and principles and how these influence the cultural models within the community. In addition it may assist in identifying communication and management strategies which are most effective in targeting each of the dominant cultural models.

10. References

Beeton, R., C. Buxton, G. Cutbush, P. Fairweather, E. Johnston, and R. Ryan. 2012. Report of the Independent Scientific Audit of Marine Parks in New South Wales.

Bennett, M. 2007. The economics of fishing: sustainable living in colonial New South Wales. Aboriginal History **31**:85-102.

Blaikie, N. 2009. Designing social research. Polity Press, Cambridge.

Booth, D. 1994. Surfing '60s: A case study in the history of pleasure and discipline∗. Australian Historical Studies **26**:262-279.

Brooks, K. 2010. Sustainable development: Social outcomes of structural adjustments in a South Australian fishery. Marine Policy **34**:671-678.

Creswell, J. W. 1998. Qualitative Inquiry and Research Design: Choosing among five traditions. Sage Publications Inc., Thousand Oaks, Calfornia.

Creswell, J. W. 2009. Research Design: Qualitative, Quantitative and Mixed Methods Approaches. Sage Publications Inc, California.

Dale Donaldson, S. 2006. Stories about the Eurobodalla by Aboriginal People. Euobodalla Shire Council

NSW Department of Environment & Heritage, Moruya.

Dale Donaldson, S., editor. 2008. Aboriginal Men & Women's Heritage: Eurobodalla. Eurobodalla Shire Council, Moruya.

Destination NSW. 2012. Tourism Corporate Site - Regional Tourism Statistics.*in* N. Government, editor. Tourism New South Wales.

English, A. 2002. The sea and the rock gives us a feed: mapping and managing Gumbaingirr wild resource use places., NSW National Parks and Wildlife Service, Hurstville.

Ford, C. 2009. A summer fling: the rise and fall of aquariums and fun parks on Sydney's ocean coast 1885–1920. Journal of Tourism History **1**:95-112.

Ford, C. 2010. The Battle for Publics Rights to Private Spaces on Sydney's Ocean Beaches, 1854–1920s. Australian Historical Studies **41**:253-268.

Frawley, J. 2013. Kissing fish: Rex Hunt,popular culture and fishing practices. University of Sydney, Sydney.

Frawley, J., S. Nichols, H. Goodall, and E. Baker. 2012. Talking fish - making connections with the rivers of the Murray-Darling Basin.*in* M.-D. B. Authority, editor., Canberra.

Gladstone, W. 2006. Human Uses of Coastal Rock Platforms in Newcastle. School of Environmental and Life Sciences, University of Newcastle Ourimbah.

Gladstone, W. and I. Sebastian. 2009. Human Uses of Intertidal Rocky Shores, Central Coast, New South Wales. University of Newcastle, Ourimbah.

Goodall, H. 1996. Invasion to Embassy: Land in Aboriginal Politics in New South Wales, 1770-1972. Allen & Unwin Pty Ltd, St Leonards.

Henry, G. W. and J. M. Lyle, editors. 2003. The National Recreational and Indigenous Fishing Survey. Australian Government Department of Agriculture, Fisheries and Forestry, Canberra.

Kijas, J. 2009. There were always people here: a history of Yuragir National Park. DECC 2009/218, Department of Environment and Climate Change, Sydney South.

Marine Parks Authority. 2006a. Socio-Economic Assessment of the Batemans Marine Park.*in* NSW Marine Parks Authority, editor.

Marine Parks Authority. 2006b. Summary of Submissions on the Batemans Marine Park Draft Zoning Plan. NSW Marine Parks Authority, Narooma, NSW.

Maxwell, J. A. 2005. Qualitative Research Design: An Interactive Approach. 2 edition. Sage Publications Inc., Thousand Oaks, California.

Miles, M. B. and A. M. Huberman. 1994. Qualitative data analysis : an expanded sourcebook. 2nd edition. Sage Publications, Thousand Oaks.

NSW Government. 2013. A New Approach: NSW Marine Estate. NSW Government, Sydney.

NSW Office of Environment and Heritage. 2012. Aboriginal people living and working on the NSW coast: A historical review. *in* N. O. o. E. a. Heritage, editor. Office of Envrionment and Heritage, Sydney.

Powell, R. and L. Chalmers. 2006. The Estimated Economic Impact of Batemans Marine Park on Commercial Activities. Centre for Agricultural and Regional Economics Pty Ltd.

Royal Life Saving Society - Australia. 2012. Rock Fishing. Royal Life Saving Fact Sheets. Royal Life Saving Society - Australia.

Ryan, C. 2005. Visitors to Solitary Island Marine Park their behaviours, attitudes and perceptions. An analysis of surveys: 2002 to 2005. NSW, Marine Parks Authority.

Song, A. M., R. Chuenpagdee, and S. Jentoft. 2013. Values, images, and principles: What they represent and how they may improve fisheries governance. Marine Policy **40**:167-175.

Stocker, L. and D. Kennedy. 2009. Cultural Models of the Coast in Australia: Toward Sustainability. Coastal Management **37**:387-404.

Thompson, R. 2007. Cultural Models and Shoreline Social Conflict. Coastal Management **35**:211-237.

Voyer, M., W. Gladstone, and H. Goodall. 2013. Understanding marine park opposition: the relationship between social impacts, environmental knowledge and motivation to fish. Aquatic Conservation: Marine and Freshwater Ecosystems:n/a-n/a.

Waitt, G. 2008. 'Killing waves': surfing, space and gender. Social & Cultural Geography **9**:75-94.

Waitt, G. and A. Warren. 2008. 'Talking Shit over a Brew after a Good Session with your Mates': surfing, space and masculinity. Australian Geographer **39**:353-365.

Attachment 1: Interview Questions

Interviews will be semi structured and questions are designed to guide but not direct discussion. Examples of the nature of the questions that may be asked are contained below.

Interview Guide

Please think about your favourite place on the coast – specifically a beach or headland – you don't need to identify it to me if you don't wish to. When I ask these questions it might be helpful to think about your answer in terms of this favourite section of coast.

Coastal use – past & present
- How long have you lived in the local area? Why did you move here?
- When was the last time you went to the beach/headland? What did you do there?
- How often do you go the beach/headland?
- What are your favourite things to do on the coast – who with?
- Who introduced you to this activity? How did you learn to do it?

Coastal values – past & present
- What is your earliest/favourite memory of the coast? Why?
- Why do you fish/surf/dive etc?
- What is it about your favourite section of the coast that makes it special to you?
- What is that you love above the coast?

Interactions with other users
- When you go to the coast do you go with other people or do you go alone?
- When you go to the beach/headland to you like to see/interact other people?
- Do others people activities affect your enjoyment of the coast?
- How do you feel when you see people fishing from the beach/headlands?

Coastal management
- Has anything changed (for better or worse) on your favourite section of coast? Has it changed how you feel about it?
- Does anything worry you about the way your local beach/headland is used or managed?
- What do you think are the greatest threats to the coast? Why?
- What things limit/enhance your enjoyment of the coast?
- What would you like to see done to improve your experience of the coast?

Economic value of the coast
- Questions provided by SCU

Postcode, age, length of residence, education