

Chapter 1

PLANNING FOR SUSTAINABLE DEVELOPMENT: 'WICKED PROBLEMS' AT SYDNEY'S MALABAR HEADLAND

Krishna K. Shrestha and John Dee

Planning decisions about sustainable development are often confronted with multiple and at times incommensurable interest sets that do not lend themselves to straightforward solutions through the application of scientific methods of rational planning theories. Rittel and Weber coined the term 'wicked problems' to describe this phenomenon. This chapter explores a set of wicked problems in the Malabar Headland in Sydney, Australia. By employing a mix of qualitative and quantitative methods, it was found that wicked problems were produced, reproduced and perpetuated in the Malabar Headland due mainly to two principal reasons: a) operational – relating to the complex and conflicting value-sets among stakeholders and multiple uses; and b) structural – relating to the institutional and interest group politics inherent within the layered federal system of government in Australia. As a result, the planning systems were unable to deliver decisions consistent with overarching environmental and social policy imperatives. The end result was a monumental planning stalemate. The chapter concludes by reflecting on the empirical findings of the Malabar case in relation to relevant theories of planning to gain an understanding of how planning systems can deliver outcomes that meet both environmental and social imperatives for sustainable development.

Introduction

Carson's 'Silent Spring', the Club of Rome's 'The Limits to Growth', Schumacher's 'Small is Beautiful' and Brundtland's 'Our Common Future' have all in different ways focused on conserving and protecting environmental values in the face of unprecedented growth. It was the Brundtland Report (WCED, 1987) that popularised the concept of sustainable development in both academic and policy vocabulary, and in

the political mainstream. The underlying argument was the notion of 'balance' between conservation and development objectives (Sachs, 1992) which has been endorsed by subsequent United Nations Conferences. Agenda 21 emerged from the Rio conference in 1992 and consists of a plan of actions to be implemented by each member country of the United Nations to achieve sustainable development objectives. It sets out required actions to be undertaken at supra-national (global), national, regional and local levels of the polity in each member country for 'balanced' economic growth and conservation to achieve sustainable development. Reconciling environmental objectives with those of development, however, have proven difficult due to underlying and opposed value-sets that inevitably lead to irreconcilable clashes of interests. The concept of sustainable development per se and the notion of 'needs' and 'development' and 'what is to be sustained' has been criticised as an oxymoron (Redcliff, 1995) because sustainable economic development and making the wealthy better off has neglected the real issue concerning conservation of natural resources (Sachs, 1992). Giddings et al. (2002: p. 188) make the same point in their comment that sustainable development is 'almost anything that anyone wants, so that beneath its covers lies a multitude of sins'. However, Conca et al. (1995: p. 207) perhaps came closest to defining the practicality of sustainable development in their comment that it is about 'reconciling divergent views to design environmentally friendly development ... palatable to different interests'.

Planning is critical to achieving sustainable environments because it is where decisions are made about land use and development that requires practitioners to reconcile potentially irreconcilable environmental and development objectives (see Dubois, 2003). Environmental issues are now at the centre of a global political debate where the implications of climate change and global warming, for example, call for comprehensive thinking over intermediate and longer term timeframes. The corollary is that the current ways planning decisions are made, especially with respect to major development projects, must be radically changed because of their long-term potential environmental impacts. Planning agencies throughout the world are constantly called upon by governments of varying political persuasions to develop strategic plans for guiding decisions on development projects where there are multiple, competing and seemingly incommensurable interest sets that do not lend

themselves to rational decision processes where there are clear choices about alternatives, mitigation and trade-offs. Solutions towards reconciling environmental and development issues and problems are also hampered by the fact that planning decisions must be made within a range of social, political and ecological complexities and uncertainties.

In coming to terms with these seemingly insurmountable problems, it is useful to recall Rittel and Webber's (1973) seminal paper, 'Dilemmas in a general theory of planning'. The authors conceived the term 'wicked problems' to describe planning decisions that do not lend themselves to the rational scientific methods which were prominent in the planning theories of the early post-World War II period, circa 1950–60s. Jacobs (1995), for example, argued that contemporary environmental philosophy presented a challenge to planning theory because it required a longer timeframe comprehensive type planning. But contemporary planning practice has progressively moved towards incremental approaches which by definition use shorter timeframes. The corollary is that planning decisions have not been particularly effective in accounting for overarching longer term policy intentions. This problem draws attention to planning theory and specifically those theories that try to explain practice.

This chapter is structured by first conceptualising the meaning of 'wicked problems' (see Rittel and Webber, 1973), followed by an analysis of the value clashes between environmental and development interests in the Malabar Headland case in Eastern Sydney. Finally, we reflect briefly on the empirical findings to throw forward insights about how planning systems can be made more responsive in terms of delivering outcomes consistent with overarching environmental policy imperatives.

What are 'wicked problems'?

Rittel and Webber's seminal paper emerged from the perceived limitations of the rational planning model, namely:

The seeming consensus, that might once have allowed distributional problems to be dealt with, is being eroded by the growing awareness of the nation's pluralism and of the differentiation of values that accompanies differentiation of publics. The professionalized cognitive and occupational styles

that were refined in the first half of this century, based in Newtonian mechanistic physics, are not readily adapted to contemporary conceptions of interacting open systems and to contemporary concerns with equity. A growing sensitivity to the waves of repercussions that ripple through such systemic networks and to the value consequences of those repercussions has generated the recent re-examination of received values and the recent search for national goals (Rittel and Webber, 1973: p. 156).

The authors argue that the problems scientists are generally concerned with are 'tame' or 'benign' because the mission they seek is basically clear in terms of whether or not the problem can be solved. 'Wicked problems', on the other hand, do not have such clarity because they are essentially public policy issues that have complex future implications such as freeway locations, dam sites, parks and power plants. The authors use the term 'wicked' to mean 'tricky' or difficult to resolve. In contrast, 'tame problems' are those with a logical progression in relation to formulating the problem, information gathering, analysis, synthesis and solution. Hence, 'wicked problems' could be described as those that have no true or false answers because of the many interest sets involved in their ideological predilections and preferences (Rittel and Webber, 1973: p. 163).

Verma (1997) responded to Rittel and Webber (op cit.) by arguing that because planning decisions are essentially made by argument, they should be made argumentatively, more vigorously and in a structured way and that 'wicked problems' were basically unsolvable through the application of scientific method. The authors therefore believed that all that can realistically be done is to optimise (see Simon, 1976). 'Tame problems' on the other hand were generally considered to be solvable through the application of scientific method because they had relatively straightforward technical solutions. In the case of 'wicked problems', Rittel (see Verma, 1997) believed that if strategies such as 'doomsdaying' (i.e., putting forward worst-case scenarios and then acting on them) are employed we may be able to defuse some of these 'wicked problems'.

It is a truism to say that planning theory has experienced a somewhat tortured history in its attempt to establish a firm basis for practice. The master/blueprint planning approach (also called the comprehensive

rational model) in the first two decades after World War II became the standard urban planning model. According to this model, professional experts, usually employed by government, are charged with identifying a comprehensive range of problems (requiring comprehensive knowledge) and devising broad solutions based on rational thinking. Little attention was given to the specific socio-political context in which such solutions were to be implemented. The plans were divided into broad statements of principles and details in the form of land use and development controls. The purpose of this division was to establish a more dynamic basis for a time-space sequence where, in the first instance, the broad-scale plan was perceived to focus on a highly generalised picture of spatial distributions, and then later concentrate on filling in the necessary detail as required (Hall, 1982). This comprehensive planning model was subjected to severe criticism because of an underlying assumption that viewed society as static, exhibiting little scope for change in its basic economic, social and political conditions.

In response to the comprehensive planning model, several competing theories emerged which attempted to correct its perceived weaknesses. McLoughlin (1969) and Chadwick's (1971) systems theory and Faludi's (1973a, 1973b, 1986) procedural theory were to gain considerable prominence in planning thought and practice in the late 1960s and early 1970s. Systems theory sought to establish a more rigorous scientific basis for planning practice by attempting to overcome the absence of dynamic elements in the essentially static master/blueprint planning approaches. This was done by introducing objectives to guide the plan-making process as well as to provide iterative feedback loops to better account for the dynamic nature of the variables it sought to model.

The scientific basis and methods of systems theory attracted severe criticism from the neo-Marxist urban studies perspective which focused on the power of the capitalist system and as a corollary the view that individual citizens are generally unable to participate in any meaningful way to influence its outcomes. Because Neo-Marxism adopts a position that sees the state as an active interest in the capital accumulation process, it argues that relevant research should focus on analyses of the impact of capital investment in the urban environment (see Castells, 1977; Harvey, 1981; Scott and Roweis, 1977). While recognising that this theoretical approach has significantly contributed to an understanding of

the macro aspects of capital accumulation and its effects on urban environments, it has been criticised for its inability to provide a critical analysis of the role of institutions internal to the state.

The North American pragmatist theoretical tradition (see Dewey 1938; Schön 1983, 1992; Schön and Rein 1994) developed the reflective practice model which focuses on understanding how a practitioner may confront and analyse a complex set of 'wicked' planning problems through the employment of reflective frames and discourse construction so as to understand the planning problem and work through systematic approaches towards its resolution. While this approach can help practitioners clarify and refine proposals, its fundamental weakness is its reliance on the intelligence, skill, reasonableness and indeed good intentions of the practitioner(s) involved. In this sense, it can only offer a sound planning proposal on its own terms.

Communicative and participatory theories of planning emerged in the late 1980s and 1990s drawing on Habermas' theory of communicative action (Habermas, 1987), which attempts to explain the interconnection between the systemic side of human life and the value-driven side of human introspection – the latter being defined as the 'lifeworld'. Prominent writers such as Healey (Healey et al., 1988; Healey, 2006) and Forester (1989; 1999) have attempted to interpret and apply communicative action theory to planning decision-making where the latter focuses on the essentially value-laden political role of planning and on how planning decisions must take into account the language of practical conversation and communication. Interestingly, Innes (2004) argues that while collaborative planning is useful when acceptable solutions are not emerging from traditional decision-making processes, it should not be considered a panacea for all planning problems. In this sense, Innes believes that many critics of consensus building have not been fully informed about the nature of this practice.

Flyvbjerg (1998), in his critique of the Habermasian communicative models, argues that Habermas cut himself off from understanding real communication when, in developing his theory of communicative rationality and discourse ethics, he distinguished between 'successful' and 'distorted' utterances in human conversation. Flyvbjerg argued that success in rhetoric that is not based on rational argument is often associated with distortion – a phenomenon demonstrated repeatedly in

the Aalborg project. He found that rationality is produced by action (i.e., the social forces that are revealed in the actual planning issues or confrontations during the implementation phase) and it is the rationality of a given activity by participants via that activity. The above theoretical approaches have all in different ways contributed to the theory and practice of planning. There is a clear division, however, between the rational planning theories and the reflective practice, consensus theories – the former relying on linear scientific methods and the latter on collaborative, participatory approaches. The responsible planning authorities in the Malabar case were confronted with finding solutions to a complex set of wicked problems which provides insights into the strengths and limitations of these theories.

Malabar Headland: a challenge for sustainable planning

The study in Malabar Headland in Eastern Sydney describes a complex range of ‘wicked problems’ which presented formidable constraints to the responsible planning authorities in terms of implementing policies and actions for environmentally sustainable planning outcomes. These principal problems concerned the history of the land and continuation of a range of uses that were incompatible with conservation objectives and disputes between the Commonwealth and state governments over remediation costs to remove environmental hazards.

Research method and data collection

We employed both qualitative and quantitative methods for data collection and analysis. An in-depth study was conducted between November 2006 and July 2007 (9 months) to explore the problems in the planning and management of Malabar Headland. It investigated how and why the federal government has failed to make decisions to solve critical environmental problems in the headland. It drew on primary data collected through oral history (=3), SSIs (semi-structured interview =15), group discussions (=4), purposive visits to the site (=7) and numerous informal discussions. To maintain the anonymity of respondents, the four alphabet codes are assigned to each oral history (HIST.1 to HIST.3), SSI respondent (SSIT.1 to SSIT.15), group discussion (DISC.1 to DISC.4) and field visit (VIST.1 to VIST.7).

Respondents were selected based on the ‘snow-balling methodology’. Respondents selected were from Randwick City Council, a local environmental group Friends of Malabar Headland (FOMH), NSW Rifle Association, Malabar Riding School, bushcare groups and other community members who were interviewed for oral history and SSIs, and participated in discussions. Questions were asked about the past, present and future of Malabar Headland, focusing particularly on respondents’ views of the problems and prospects of Malabar Headland. Field visits were carried out to ascertain the state of the land, heritage assets and vegetation (soil erosion, fire, leaches, noxious weeds, etc.), to take photos as evidence, to talk to people/visitors, and to find out the nature, extent and linkage between different land uses within the headland. Findings were checked with some key respondents of SSIs to ensure their accuracy and validity.

The data collection started with the field visits and informal discussions (which continued until the end), followed by oral histories, SSIs and group discussions. There was a deliberate overlap between some respondents. Three key respondents who provided oral histories were invited for SSIs, and three SSI respondents participated in group discussions. This was to link and crosscheck the data collected through different instruments by the help of respondents.

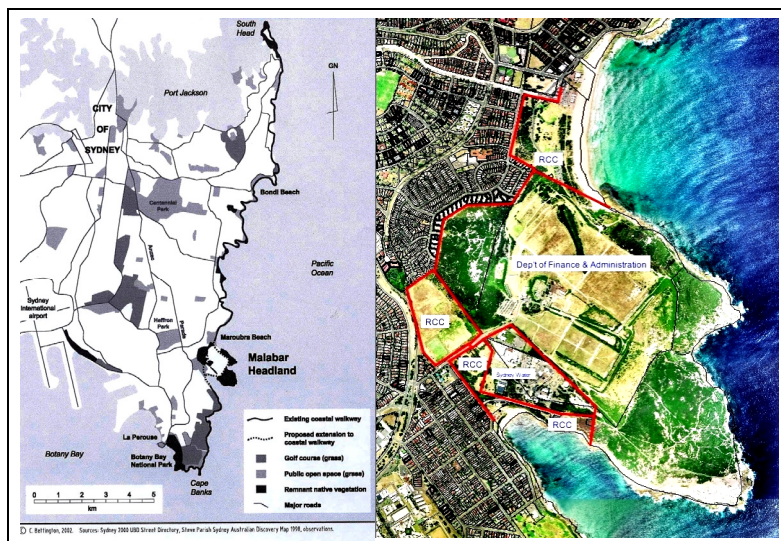
Secondary data on Malabar Headland were collected from three key newspapers in Sydney: *The Sydney Morning Herald*, *The Daily Telegraph* and *The Southern Courier* between 1991 and 2007. Relevant political statements, speeches, press releases and interviews were collected from the website of three local political representatives – Peter Garrett, Bob Carr and Michael Daly. Various publications on Malabar Headland including two plans – one prepared by Randwick City Council in 1990 and another by the FOMH in 2002 – were reviewed and analysed. A survey of 223 community members conducted by FOMH in 2001 was analysed with permission.

Environmental and heritage significance

Malabar Headland is a peninsula in eastern Sydney within the jurisdiction of Randwick City Council. It is about 12 km from Sydney Central Business District (Figure 1), beautifully located on the edge of the Pacific Ocean with Malabar Beach lying to the south and Maroubra Beach to

the north. The Malabar Headland is owned by the Australian federal government and managed through the Commonwealth Government Department of Finance and Administration (DoFA) whose primary responsibility is to sell government properties assumed to be underperforming so as to enhance strong economic management (DoFA, 2006). A major part of the land is currently under lease to the NSW Rifle Association and Malabar Riding School for professional and recreational shooting and horse riding respectively.

Figure 1: Map showing Malabar Headland in eastern Sydney

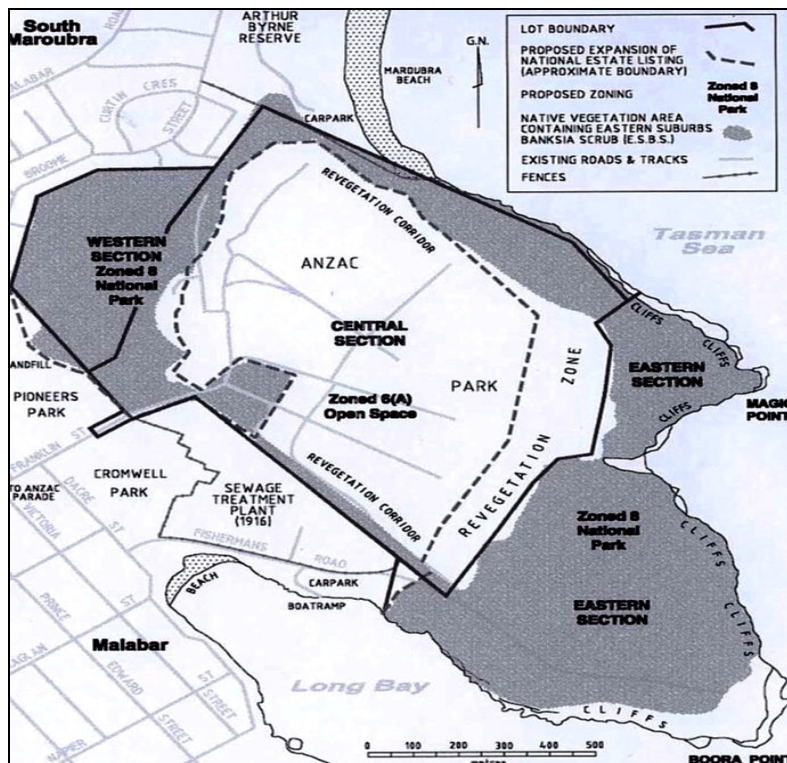


Source: FOMH (2001)

The headland is within the municipality of Randwick and is subject to the planning provisions and controls of the Randwick Local Environmental Plan (LEP). It comprises three sections of land with a total area of 177 hectares. The eastern section is zoned National Park and contains 54 hectares of land with picturesque rocks, sandstone cliffs and coastal bushland. The central section (the largest land parcel) is zoned Private Open Space containing 108 hectares of open land locally

known as the ANZAC Rifle Range (Figure 2). Currently, the main use of this land is recreation and professional shooting. The north-western section of the land is zoned 2B Residential and contains 15 hectares consisting of open space and bushland. It abuts existing residential areas to the north and west. Both the western and eastern parts of the site are covered by native vegetation. There are also several Aboriginal engravings and middens as well as significant World War II historic sites such as the gun emplacements and railway cutting (Randwick City Council, 1990). The north-west and central sections have significant waterfront views and as a result high value future development potential.

Figure 2: Malabar Headland zoning, 1988



Source: SREP No.14 (NSW Department of Environment and Planning, 1998)

Malabar Headland is of national significance with important ecological, cultural and historical values. A Plan of Management developed by FOMH (2002) identified the headland as one of the most diverse and high quality coastal vegetation areas in the Sydney region supporting over 283 endemic native plant species and more than 200 bird species. It is also the home to the Eastern Suburbs Banksia Scrub (ESBS) – an endangered plant community listed under the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999* and the *NSW Threatened Species Conservation Act 1997*. The Commonwealth legislation lists ESBS as an endangered ecological community which must be protected; the state legislation contains a similar provision with specific details listings of the relevant vegetation species and ecological communities. The Australian Heritage Commission (1997) includes the site on the Register of National Estate for its cultural and natural heritage significance. Similarly, the NSW State Heritage Register includes the headland as a site of significant cultural and natural heritage significance. However, despite the above environmental and heritage listings, the Malabar Headland has been neglected over many years because no agreement has been reached between the Commonwealth and state governments for effective long-term management of the site.

History of Malabar Headland

Historical data collected from oral history respondents and from various other sources show that before 1929 the land was owned by the NSW government and as early as 1888 was used by fishermen, indigenous people, and recreational shooters. In World War I (1914–1918), the land was used for military purposes and in 1929 transferred to the Commonwealth government for defence purposes. During World War II (1939–1945), the headland supported various military installations, notably the Boora Point Battery (Randwick City Council, 1990). It is worth noting that between 1929 and 1986 the land was used for recreational and professional shooting in conjunction with the military operations.

From 1967 onwards, the planning and management of the land went through a critical phase. In 1967 the ANZAC (Australian and New Zealand Army Corps) Rifle Range at Liverpool closed and the NSW Rifle Association clubs were transferred from Holsworthy to Long Bay

Range (re-named ANZAC Rifle Range in 1970). The war veterans were very pleased to be 'closer to the city and particularly being in a place where some of the veterans were stationed during the War' (HIST.3). In 1986, the official use of the land by the military ceased. It is critically important to mention here that during the 1980s the Malabar Headland, particularly the central section, was used as a landfill where industrial wastes were dumped (Figure 2). One respondent commented that 'many trucks used to come here with [a] full load of garbage, [and] they dumped wastes without any problem' (SSIT.3).

As indicated above, in August 1987 the Australian Heritage Commission included the eastern and western sections of the headland on the Register of National Estate to acknowledge their heritage and conservation values. And significantly, the NSW government, with agreement for the Commonwealth government, gazetted Sydney Regional Environment Plan No. 14 – Eastern Beaches (SREP No. 14) in 1988 which proposed different uses. The Rifle Range had mixed recreation/tourism development and medium density housing (NSW Department of Environment and Planning, 1998).

The 14-hectare site in the north-western section was zoned Residential, one-third of the eastern section National Park and the central section Private Open Space (see Figure 2 above). Subsequent to the above zoning, the Commonwealth government announced that the central section (the Rifle Range) and the north-western bushland section would be sold to the highest bidders: 'effectively to generate cash for the struggling Hawke government' (HIST.2), and 'This was considered as an insult by the government to force the war veterans to vacate the land' (HIST.1). These respondents considered that 'both [the] NSW government and federal government overlooked their own policy requiring the conservation of natural, cultural and Aboriginal heritage of national significance' (HIST.2). This was the start of a bitter conflict.

In 1990, the NSW Rifle Association challenged the federal government's intention to sell the land, arguing that they were not given sufficient notice and a suitable relocation site (DISC.1 and DISC.4). The Association was granted an Injunction Order by the NSW Supreme Court to prevent the Commonwealth accepting or rejecting any tenders. In its deliberation the court states: 'The Commonwealth was within its rights to cause the Rifle Association to leave the site, but three years

notice was necessary' (FOMH, 2002). In 1990, Randwick City Council took proactive action and employed consultants to prepare a plan of management for the headland which the federal government subsequently ignored because 'the council was against the intention of the federal government to sell the Headland to developers' (HIST.1). And 1998 saw Randwick City Council challenge the NSW government by proposing to amend its Local Environmental Plan:

The aim of this plan is to bring the development of the private open space zoned land in the centre of Malabar Headland in line with that of [of] the other open space zoned land in the city, by omitting the provision allowing tourist accommodation (Randwick City Council, 1998).

It is widely believed that all the above initiatives triggered the sale announcement by the Commonwealth government. These events then prompted the Premier of NSW, Bob Carr, to call for the preservation of the headland as National Park and public open space. However, he later failed to back the Randwick City Council proposal. The legal battles between the Commonwealth government and the shooters and the conflicts between different levels of governments were to stall any long-term planning and management of the headland for much of the 1990s.

The Department of Finance and Administration (DoFA) announced in 2001 that the Commonwealth government would provide a \$9 million grant from the Federation Fund to build a new shooting facility at Holsworthy for the relocation of ANZAC Rifle Range operation (SSIT.4). While this announcement was initially welcomed by the Association, it became wary of accepting the offer due partly to 'the delay by the federal government to act quickly ... [and] the rejection by its members ... to leave a historically (World War I and II veterans) important site for shooting' (HIST.2). Moreover, the Association felt there would be 'the need to travel a long distance for their activities at Holsworthy from Sydney central region' (HIST.3).

In 2001, the Friends of Malabar Headland – a group of people concerned with the conservation of the natural and cultural heritage of Malabar Headland – conducted a community survey of 223 residents around Malabar Headland to elicit their views, values and interests on how to best manage the site. A vast majority of respondents saw walking

in the headland, whale and bird watching, dog walking and bush regeneration as immensely enjoyable and important activities, despite the official restriction on access to the headland. They were also overwhelmingly opposed to commercial development on the headland.

Figure 3: Respondents' views on use of Malabar Headland

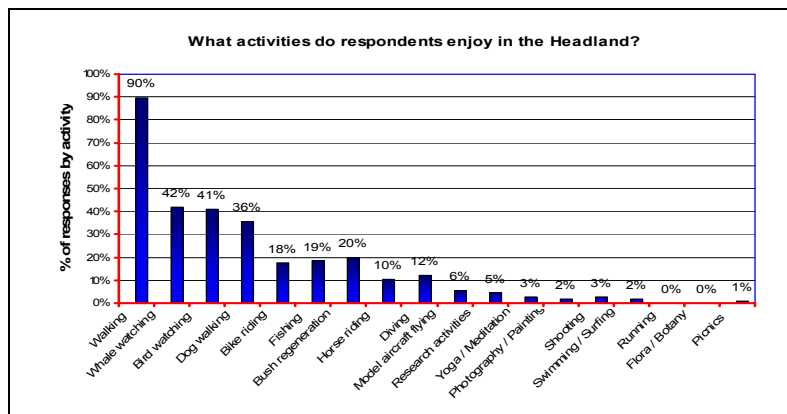
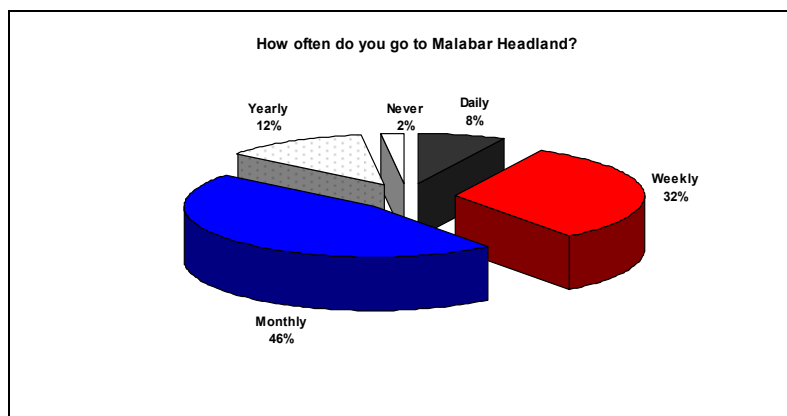
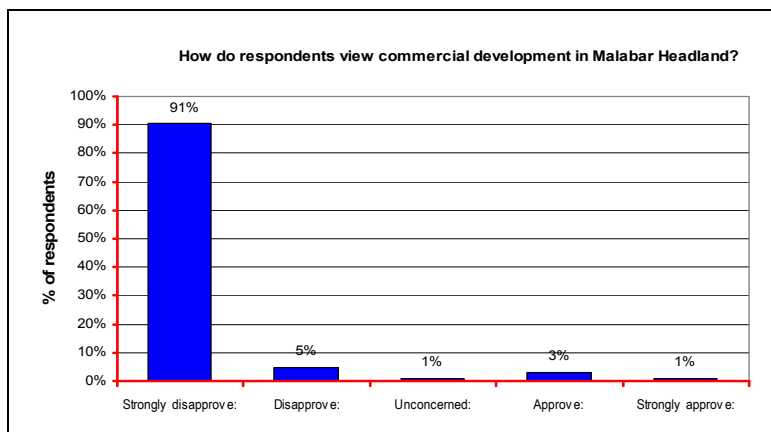


Figure 4: Respondents' views on access to Malabar Headland



Source: FOMH (2001) for both figures

Figure 5: Respondents' views on commercial development



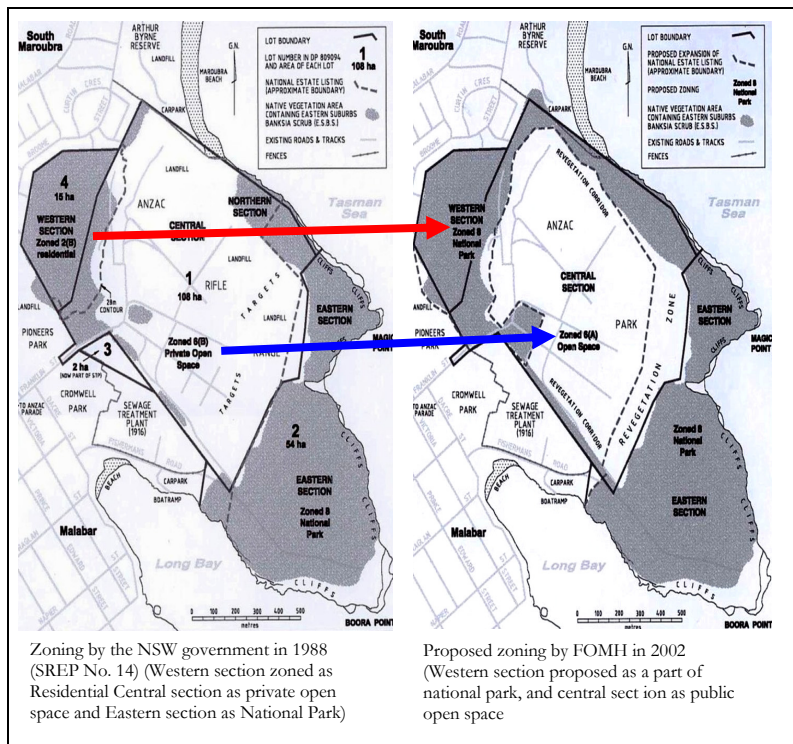
Source: FOMH (2001)

As a result of this community survey, the FOMH prepared a Plan of Management in 2002, the principal management priorities being:

- The rezoning of the western section from Residential 2(B) to National Park/Nature Reserve 8.
- The transfer of management to the National Parks and Wildlife Service because of diverse and uncommon vegetation, high visual significance, potential contribution to local and regional open space systems and passive recreation.
- The rehabilitation and protection of the heathland vegetation communities and conservation of the coastal battery fortifications.

The above extracts from the Plan of Management are shown in Figure 6 below which compares two maps: SREP 14 Eastern Beaches REP with the FOMH proposal. The FOMH proposal rezones the central section (the ANZAC Rifle Range) from private open space to public open space with management responsibility administered by a Trust. This plan partially supports the 1998 Randwick City Council proposal to rezone the ANZAC Range from private open space to public open space which was 'not even acknowledged by the [federal] government' (SSIT.1).

Figure 6: Changes to zoning, 1988 and 2002



Source: FOMH (2002)

In 2004 Bob Carr, the Premier of NSW, launched a petition calling on Prime Minister John Howard to hand the Malabar Headland over to the people of NSW. His petition brochure states:

The federal government said it would hand Malabar Headland over to the people of NSW. That was six years ago. I have written eight letters to Canberra since 1998. Enough is enough. Now is the time to act. It's vital that the Malabar Headland is preserved as a National Park and this precious beach headland is preserved as public open space.

The above initiative was partly aimed at gaining certain approvals for the Randwick Local Environment Plan (LEP) amendment. The western section of the headland needs to become a collective endeavour shared by the state and local jurisdictions considering the Eastern Suburb Banksia Scrub still remains in a residential zone.

On May 3, 2007 Malabar Headland Community Forum (MHCF) was organised by Federal MP Peter Garrett comprising representatives of community groups, residents and Federal MP, the Honourable Peter Garrett. Garrett's website states that: 'Despite the long-running saga with the Federal Government [it is] still not ... prepared to hand back the land to the people of NSW [and] the forum came to a clear consensus: it's time the headland was returned to the people of NSW'. The MHCF passed a motion which:

- Reaffirms the commitment of the local community to the preservation and conservation of the Commonwealth-owned land within Malabar Headland.
- Calls upon the Commonwealth government to complete Part 2 of the Facilities Management Plan currently underway.
- Calls upon the Commonwealth government to:
 - honour its commitment to the relocation of shooting activities currently conducted on the Malabar Headland;
 - confirm that \$9 million allocated from the Federation Fund in 1998 is still available to be utilised as previously announced by Finance Minister John Fahey for the relocation of the shooters and the provision of open space on the Malabar Headland;
 - recommence discussions with the NSW Government without delay to bring about the relocation of shooting activities currently conducted on the Malabar Headland; and,
 - ensure the return of Malabar Headland to the people of NSW for its use as National Park and public open space.
- Calls on Randwick City Council to re-investigate rezoning of the western portion – currently zoned 2B residential – to National Park. (Source: Garrett, 2006).

Malabar Headland's current situation

The headland is partially fenced around the boundary, particularly on the areas adjacent to the residential areas and Maroubra Beach. The fences are signposted with restricted access signs listing possible fines up to \$46,000 for significant damage to the environment. However, field visits found that the signposts have been erased by graffiti and the fences have been broken in many places. This, as one respondent said, is 'a form of protest undertaken by walkers and residents' (SSIT.13). This indicates that for some people, it is probably a conscious action by way of protest, while others might have just ignored the signs.

The NSW government, Randwick City Council, politicians from Labor, Liberal and Green parties, community groups, environmental activists, the Shooters Association, the Riding School and significantly the developers have called for urgent action by the landowner: the Commonwealth government. One respondent said: 'rumours have been in the air [that] the government [has been] preparing a plan for the headland for some years, but no one expect[s] it coming sometime soon' (SSIT.4). Another respondent added: 'we heard that a facility management plan has been finished, but it is kept secret, we don't know its details' (SSIT.13). It is significant to mention that the eastern and western sections of the Malabar Headland were listed on the NSW State Heritage Register in 2005, further highlighting the conservation value of the site.

During on-site visits, discussions with interested parties and user groups, it was found that the north-east of the headland contained a number of constructed wetlands supposedly built for controlling and treating harmful leachate to prevent it from flowing into the children's swimming pool south of Maroubra Beach. One respondent claimed: 'water in the wetlands is poisonous, fish and birds have died' (SSIT.1). Another respondent added: '[the] environmental protection authority issued a warning for residents some years ago' (SSIT.7). In response to the leachate pollution, the NSW Environment Protection Authority declared a Draft Significant Risk of Harm in April 2001 which still remains in force. A common theme from the study was that the former Liberal federal government wasted a lot of money on management of leachate and surface water flows at the Mayan Step sites without much

success. Yet, the responsibility to remediate the land lay with the landowner (the Commonwealth government), but they had failed to do.

Shooting and horse riding continue together with degradation and pollution from sites used as dumping grounds for hazardous materials such as car tyres and so on. Numerous gullies, especially in the north-eastern section, have been badly burnt by wild fires and vegetation damage resulting from extensive trail-bike jump pads. In addition, some infestation has occurred due to noxious weeds, despite regular voluntary work by enthusiastic bushcare groups. The cultural and historical sites have been subjected to urination, vandalism and vulgar graffiti. Hence uncertainty exists, as one respondent pointed out: 'no one knows what is going to happen in the Headland' (SSIT.15). And finally, the Australian Liberal National Coalition Government was defeated at the polls on December 24, 2007. Part of Kevin Rudd's election 07 policy document 'Caring for Our Coasts' clearly indicated that the Malabar Headland will be handed over to the New South Wales Government for protection as national park and public open space. The new Labor government has yet to announce its position in relation to the Malabar Headland and to date there is still no management plan in sight.

Conclusions

All three levels of government in Australia aim to implement a draft of environmentally sustainable development policies. The Malabar case demonstrates, however, that well intentioned as these policies may be, they do not always translate into the intended implementation outcomes. The case is also revealing in showing that the history of the land was critical to understanding how the underlying value conflicts coalesced into 'wicked' planning problems in relation to its future planning. The residential zoning in the north-west section, for example, reflected past Defence Department intentions for war veteran housing. This historical fact kept the future residential housing use on the federal government's agenda long after both state and local governments and the community had shown little support and in some cases outright opposition. The history of user rights of land in the central section together with the continued illicit dumping of contaminated materials added yet another dimension to the planning problems because of the high costs associated with remediation and relocation. These costs made the state government

reluctant to accept the legal transfer of the land unless the Commonwealth Government allocated funds to cover site remediation and clean-up. Also, the Commonwealth Government's existing property regime, which included unenforceable access restrictions, poor surveillance and monitoring, allowed the above problems to continue almost unabated. Until these problems are resolved, the conflict and dissatisfaction about decisions in relation to the planning and management of the headland will persist. The various plans proposed by different stakeholders have been ignored and there is no viable plan in sight from the federal government's perspective.

In the Malabar case, we can discern the root cause of the above 'wicked problems' as structural. This refers to the position of the former Liberal Commonwealth Government that essentially saw part of the headland as an economic asset – a position reinforced by placing responsibility for the management of the land under the auspices of the Department of Finance and Administration whose *raison d'être* is managing and disposing of government assets. As a result, the conservation and heritage values of the land were not given sufficient priority, most likely because the required planning and environmental expertise did not reside in the Department of Finance and Administration.

It can be speculated further that had responsibility for the long-term management of this land been placed within the Department of the Environment, Water, Heritage and the Arts, the management approach may have been entirely different because of the different culture and expertise within this department. In this respect, the new incoming Labor government may present a positive change in the way that the Malabar Headland and the 'wicked problem' associated with it are approached in terms of developing a long-term environmental plan rather than an assets management plan (or facilities management plan). But the decision in this respect ultimately rests with the landowner, the Commonwealth Government, because it must pay the costs of cleaning up the contaminated areas and then decide to either transfer the land to the state of NSW or develop it in its own right as the landowner.

Reflecting on the Malabar case, it is evident that the communicative approaches alone offered no real solution to the 'wicked problems' in hand. In this sense, Flyvbjerg's (1998) finding that rationality is produced in action by participants via that activity has some validity. It may be

useful, therefore, to reconsider some earlier planning theories such as procedural, strategic choice and the constructivist/ reflective practice approaches which are seldom highlighted in planning literature today. While we are aware of the sustained criticisms of these theories, it is our belief that they should be reappraised because of their central concern with planning practice. Ultimately, planning knowledge is eclectic in the sense that no single theoretical tradition will provide a satisfactory explanation for the complex planning phenomena involved in cases such as Malabar Headland.

The principal point is that the practitioner, in trying to resolve such problems, must ultimately be guided by the planning and environmental policies and legislation applying to the land in conjunction with the context specific societal values, needs and expectations, and the ecological conditions. These in turn must be situated within a changing global political, economic and ecological landscape. Finally, this points to the policy implementation problem endemic to planning practice where statutory decisions are often inconsistent with policy and strategic intentions. The abovementioned theoretical traditions attempted to grapple with these issues and are well worth revisiting for their contributions to understanding practice.

Notes

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