A FUTURE FOR PORT HACKING?

The Port Hacking Catchment Authority

A Briefing

A community based plan for the proper long term management of Port Hacking and its catchment, proposed by a number of groups with a commitment to ensuring that the unique values and environment of the Port are maintained for the benefit of the whole community.

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SYNOPSIS

For many years community groups concerned with Port Hacking have sought an overall plan within which numerous "ad-hoc" proposals could be properly considered. In the last few years those concerned with the protection of the Ports' unique characteristics have been faced with a number of major issues - the proposal to extend Helensburgh, the unwillingness of the State Pollution Control Commission to enforce pollution control laws in relation to the Hacking River, proposals to increase the intensity of foreshore development in Cronulla, proposed Tourism Development plans, revision of the Foreshore Development Code, proposed redevelopment of the head of Gunnamatta Bay, sewerage and water cycle management issues in Bundeena and Maianbar, and various "one off" foreshore developments with adverse effects. Also of relevance has been the proposal by the National Parks Association for a substantial part of Port Hacking to be dedicated as National Park, under the control of the National Parks and Wildlife Service. Whilst Sutherland Shire Council has shown itself concerned with the need for an improved management regime, with the proposed re-issue of their draft management plan, the reality is that the issues are of such complexity that what is required is a far more powerful initiative than they have proposed. Similarly the proposal for a Total Catchment Management Committee proposed to be convened by the National Parks and Wildlife Service, whilst laudable, is unlikely to have the ability to act efficiently and quickly across the range of issues addressed in this proposal ,given the political limitations and the jurisdictional complexities with which it is likely to be faced if and when it is finally convened.

The proposal for the creation of a Marine National Park is unlikely to lead to resolution of the major issues identified in this document, as the jurisdiction of that park would not extend into the areas of foreshore which are the major

sources of the pressures on the Port, and the ability of the National Parks and Wildlife Service to adequately manage all of the issues involved in preserving the amenity and quality of any such marine park can legitimately be questioned given both jurisdictional and economic constraints.

Major management issues for the Port continue to be treated in an ad hoc and unsatisfactory manner. This is leading to a marked deterioration in the Port, which is likely to continue unless a co-ordinated and powerful approach is implemented.

Wishing to ensure that the important characteristics of Port Hacking are safeguarded against ill-considered development or accidental despoilation, a number of community groups involved with the area have prepared this plan. Its purpose is to provide a clear framework for all development and exploitative activity within Port Hacking and its catchment.

This plan has the support of major groups concerned with the future of the Port
 • The Port Hacking Protection Society
 • Friends of the Hacking River
 • Cronulla Watch Committee
 • Helensburgh Protection Society
 • National Trust
 • Nature Conservation Council

We look forward to realising our vision of a Port Hacking which is both a recreational and social resource and an environmental jewel in the crown of Sydney.

OUR POLICY FOR PORT HACKING AND ITS CATCHMENT

The present situation of overlapping and competing jurisdiction, the absence of any overall plan or "vision" for the Port, emphasis in decision making only on the interests of a small number of users of the Port, and the lack of community involvement in the management of the

area are all leading to a slow and irreversible deterioration in the Port and the Hacking River, which will ultimately result in the loss of amenity to all users of the waterway.

We seek:
- a single authority (the "Port Hacking Management Authority") responsible for the overall management of the Hacking Catchment, to be established within the term of the current Parliament. This authority would have the power to establish governing rules which would override both State and Local government rules, and would include representatives responsible for the National Park areas in an advisory/co-ordinative role.
- rules governing the area under this Authority which will encapsulate specific principles and values which are designed to provide for the long term good governance of the area in the interests of all user groups. These are outlined in this document.
- administration of the area under the Authority will incorporate genuine community involvement and representation,
- an independent public enquiry or commission headed by a reputable and independent expert be established to recommend the legal and operational structure of the Authority and the principles regulations and controls which ought be enforced by that authority so as to give effect to the governing principles, to report within 18 months.

The geographic extent of the area under the control of the Authority would be finally determined by the independent enquiry, but is intended to cover all foreshores of the Port, and the Helensburgh catchment area, together with an area out to sea off Port Hacking sufficient to give effect to the spirit of this proposal.

Structure of this document

The following document is designed to provide a comprehensive rationale for the proposed establishment of a separate management authority with responsibility for Port Hacking and the Hacking River. The bulk of the document seeks to clearly establish the history and issues which give rise to this need, and to explain why particular approaches to the management of the area are proposed.

The latter part of the document sets out the proposal for the establishment of the Management Authority, and describes the proposed approach to managing the area placed under its jurisdiction.

WHY THE PLAN IS ESSENTIAL

Within an hour of the city of Sydney Port Hacking offers a substantially unspoilt waterway. It is used by the people of Sydney and Wollongong as a recreational parkland. It is mostly used for activities which involve a close relationship between the user and the waterway - swimming, fishing, small craft, surfing, and paddling for those unable to swim. The ambience of the area is gentle and relaxed, with the families of a broad cross section of our society enjoying the safe waters and the natural beauty of this undeclared marine park to the fullest.

Port Hacking has been a shoaled waterway for all the time that Europeans have been in Australia. The early explorations of the *Tom Thumb* soon after Captain Phillips' settlement of Botany Bay mapped this extensive shoaling. Its unsuitability for deep keeled navigation together with the rugged surrounding terrain left Port Hacking a relatively isolated region, and restricted residential occupancy and coastal industry. The unique nature of Port Hacking, as a safe swimming and recreation area close to the city of Sydney is due in no small degree to these shoals.

A continuous theme in the history of the Port since 1881 has been the need to dredge regularly to maintain the access of deep keeled vessels. Shellgrit extraction between 1928 and 1973 was accompanied by the dumping of residue, creating major manmade barriers in Simpsons Bay, around Deeban Spit and elsewhere in the Port.

The Royal National Park

The Royal National Park has over two million visitors annually of which thirty percent (30%) were not born in Australia. The declaration of the Royal National Park in 1879 and its subsequent enlargements up until 1987 created a protected Southern shore for some of Port Hacking, and a relatively pollution free river catchment for the Hacking River. It has created both a tangible and symbolic "end" to the City of Sydney.The limits of the Park were expanded into the waterway in 1967 with the inclusion of the sensitive seagrass beds of Cabbage Tree Basin, South West Arm, and the upstream Hacking River above Gray's Point.

Residential pressures

The population of Sutherland Shire has grown, with consequent impacts upon the Port.
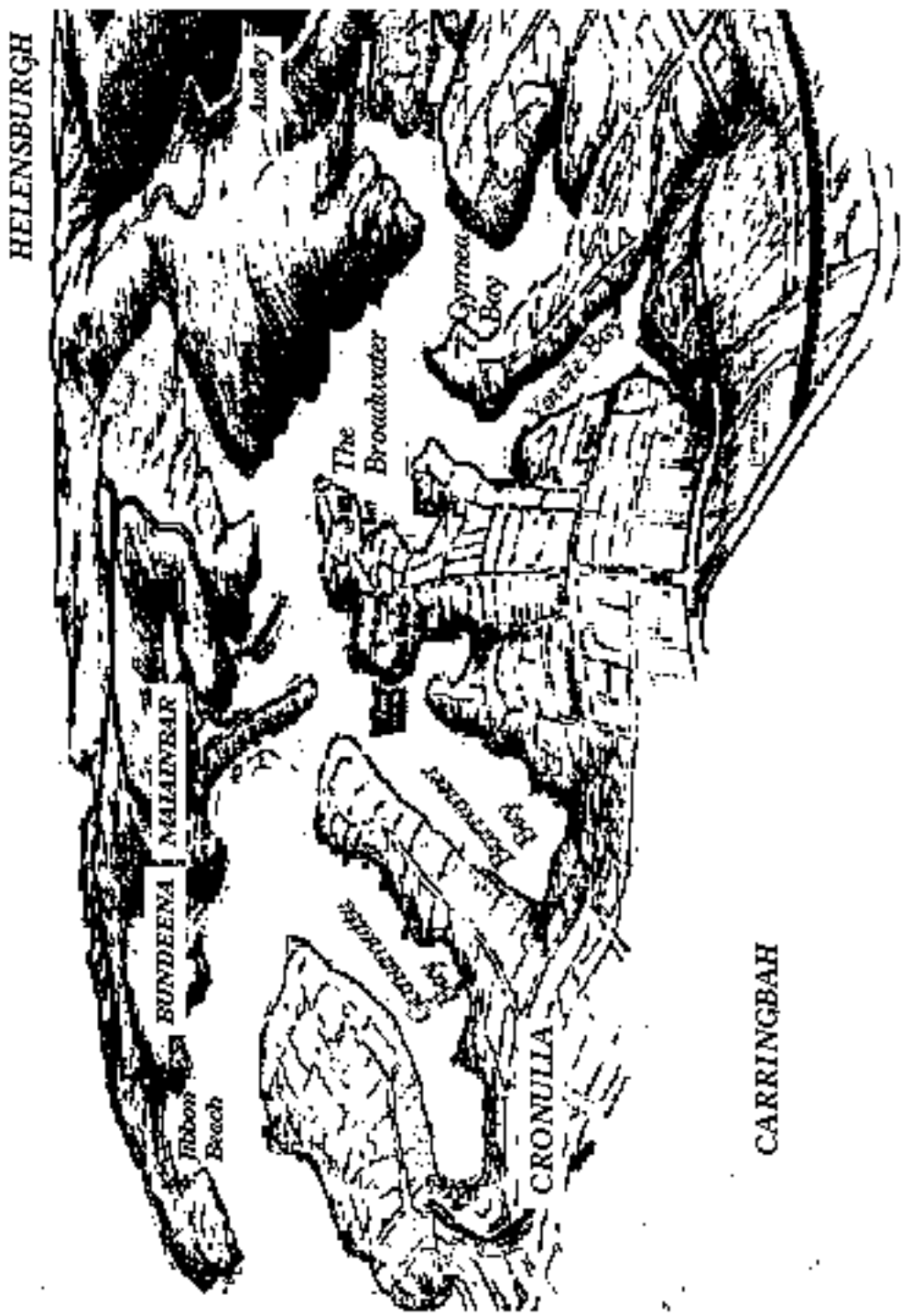
The Northern shore of Port Hacking is highly urbanised East of Swallowrock Drive, Grays Point. The Southern shore is largely untouched bushland except for Deer Park, Warumbul, Fishermans Bay, Maianbar and Bundeena.The original residences along the foreshore were either fishing or vacation cottages, originally of timber or stone and later fibro and tin. With increased residential

intensity and property values (most pronounced on the Northern shore), these cottages have been replaced with larger residences of brick and tile. In recent years a growing number of sites have been re-developed with multi-level residences and multiple occupancy dwellings.
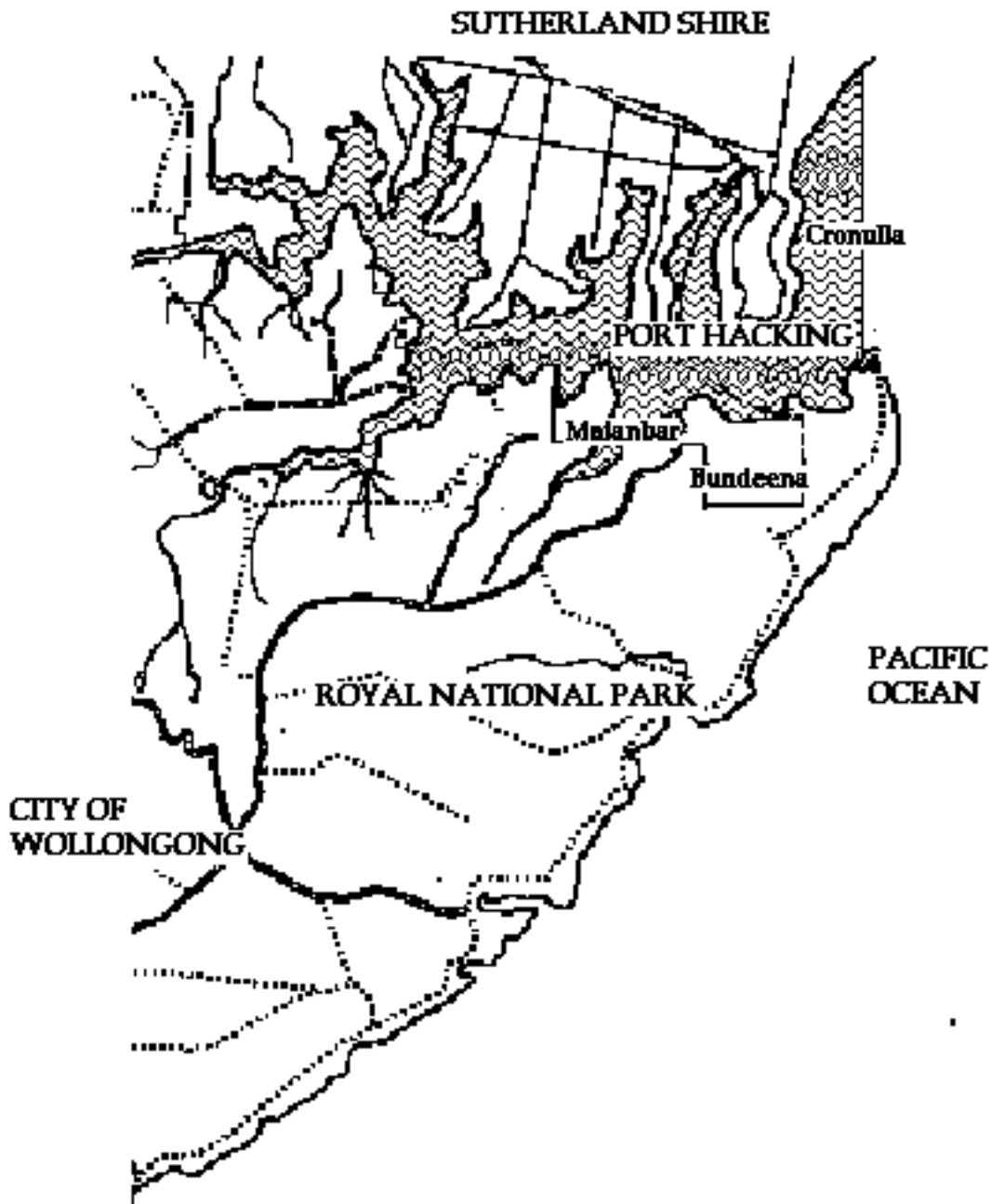
On the Southern side these pressures have been mitigated in part by the effects of relative isolation, the absence of a sewerage system,and the surrounding National Park. Recent building indicates increased pressure on the Southern side of the Port towards a "brick and tile" construction boom mirroring the Northern shoreline. Substantial residential constructions at Jibbon and Cabbage Tree Point are pointers to the increasing desire by some to see the Southern side of the Port developed in a way similar to the Northern side.

Superimposed over recreational demands, which are growing significantly, is the consideration of residential amenity. This view that residential and recreational occupancies don't mix is most likely to be held by residents living in the vicinity of points of access to the waterway; launching ramps, picnic sites and waterside reserves, particularly those with beaches such as Darook Park, and in Bundeena.

Reduction of usable recreation areas.

There has been an unrelenting reduction in recreational areas for the growing population of Sydney and Wollongong. Areas of privately or crown owned land which has been treated as undeclared parkland has become housing estates, and small orchards on the periphery of the urban area have been absorbed in the urban sprawl. Waterways used for family recreation such as the Cooks River, Sydney Harbour or Botany Bay, the ocean beaches, the Colo River and Pittwater have all become less amenable due to pollution, sand mining and industry on the foreshores, housing development, competition with other waterway users such as skiers, jet-skis and power vessels, overcrowding and traffic congestion.

Whilst attention has been directed to boating facilities, there has been a diminution in the opportunities available for "gentler" water based recreation such as canoeing, swimming, and paddling. Large and powered vessels create safety fears among swimmers (particularly families with young children). They reduce the amenity of the area for other users due to wash, the smell and noise of power vessels fear of collision, and crowding. Boating facilities alienate areas of foreshore and waterway from substantial portions of the waterway user population.

SUTHERLAND SHIRE

Cronulla

PORT HACKING

Maianbar

Bundeena

ROYAL NATIONAL PARK

PACIFIC OCEAN

CITY OF WOLLONGONG

Recreational uses

Port Hacking provides an important recreational outlet for a large number of users.

Common Port Hacking waterway uses

* boating
* canoeing
* waterskiing
* sailing
* windsurfing
* fishing
* houseboating
* ferry services
* jetskiing
* diving and snorkelling
* swimming
* wading
* boat mooring
* charter
* commercial hire

Statistics as to actual usage of the Port by different groups are not available, but the relativity of use is informative in

determining the proper balance of concerns in planning for the Port. The orders of magnitude of use appear to be:

* Foreshore users, including those who remain on the shores and those who venture into the water near the shores - picnickers, swimmers, paddlers, fisherpersons, walkers and those who collect shells along the shoreline.[1]

* Small vessel users, including persons in dinghies, jet-skis, kayaks and surf-skis, small sail boats and catamarans. [2]

* Larger vessel users. [3]

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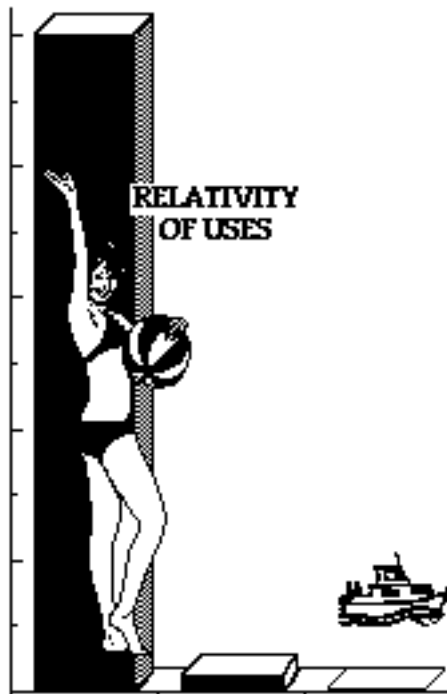
[1] Estimated 500,000 to 1 million visits per annum

[2] Estimated 1000-2000 vessel uses per annum used 10 times per annum at 1.2 persons per use, 12000 to 24000 uses, though sailing and canoeing clubs may boost this figure somewhat

[3] Estimated 100-200 vessels used on average 10 times per annum at 2.5 persons per use, 2500 to 7500 uses

Foreshore Users of Port Hacking

With a large percentage of the Sydney population being children or people of backgrounds not acquainted to surfing, safe and protected swimming areas are highly sought. Bonnie Vale in the Royal National Park is a heavily patronised recreational picnic ground. Adults are able to sit around playing cards or chatting while children play in the sheltered waters. Busloads of elderly people from all over Sydney are brought to Bonnie Vale for day trips and picnics. Over 80% of the users of the foreshore parks in Sutherland Shire are from outside the Shire.

Bonnie Vale/Simpsons Bay with its large expanse of clean shallow water and the sand shoals off Cabbage Tree Point are extremely popular with canoeists, dinghy and beginner sailors, windsurfers and jet ski riders, and in certain conditions surfers and surf-ski riders, as well as fisherpersons.

The Bonnie Vale area has, for many years, been a popular camping ground. A ballot system had to be implemented at Bonnie Vale several years ago to cope with the demand for camping and caravan sites.

On the Northern shore Darook Park serves a similar role, providing sheltered waters and sandy beaches for many thousands of people annually to swim and recreate in a safe and peaceful environment.

On both sides of the catchment and through the entire length of the Hacking River hundreds of people avail themselves of the beauty and peacefulness of the area, with walking, swimming and picnicking attracting over two million visitors to the Park each year, and many hundreds of thousands visiting the Northern shore for similar waterside recreation.

Educational uses

The great educational potential of Port Hacking is appreciated by the numerous groups of primary, secondary and tertiary

students who visit the area. Some examples serve to illustrate the point:

i) The Aboriginal Studies program in Primary Schools particularly have made use of art sites at Jibbon.

ii) The unspoilt nature and easy access to the estuarine features of the Port permits the study of ecology, estuarine development, geology, estuaries, geography and biology.

iii) Royal National Park's rangers conduct educational activities in the Bonnie Vale area relating to Mangroves and their wetland environment, and aboriginal foods and culture.

iv) Various dive schools use the Port as their classroom. Shiprock Aquatic Reserve and Salmon Haul are popular spots in constant use.

v) The Uniting Church Conference Centre in Bundeena conducts an environmental study program based upon the Port Hacking area.

Fishing

Amateur fishermen can be seen throughout the year. A 1986 head count by the Fisheries Research Institute revealed:-

Maximum Weekend Fishermen	219
Minimum " "	170
Maximum Mid-Week Fishermen	166
Minimum " "	51 [1]

Problems of foreshore use

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[1] Ref p.4 E.P.C. 59 Port Hacking Planning & Advisory Committee.

Over-use can diminish the recreational value of foreshore sites, in the environmental sense as well as its ability to continue to attract and serve the user. Peaks and troughs in use make planning and management of locations difficult. Such problems exist at Gunnamatta Park, Darook Park, and Bonnie Vale. A particular problem exists at Jibbon Beach because it caters for perhaps the widest range of recreation activities in Port Hacking and is arguably the area most subject to great variations between high and low utilisation. The particular mention of Jibbon Beach should not, direct attention away from other problems at other sites. At Gunnamatta Park for example, water quality for bathers is a concern because of the proximity of boating facilities and storm-water input.

The majority of people wishing to access the foreshore for picnicking, swimming, sun bathing or walking make use of the larger, "regional" sites such as Gunnamatta Park, Darook Park, Lilli Pilli Point Reserve on the Northern foreshore, and Jibbon and Horderns Beaches, and Bonnie Vale on the Southern foreshore. For several years these sites have reached saturation visitation levels, causing less-frequented areas to be sought out. Consequently, areas such as the Bay Lane spit (Gunnamatta Bay) and the Deeban Spit (and environs) are now subject to increasing loads.

Small Parks and reserves

A number of small parks are scattered around Port Hacking. Smaller "local" parks and reserves fall into several categories:

- Those presently accommodating local recreation,

- Those potentially capable of accommodating local recreation but requiring some attention to realise that potential,

- Those of low to no potential for regular recreation in the accepted sense. Those parks/reserves with low or no potential for recreation nonetheless usually

provide a green buffer, breaking the continuous built form of residential area. They may also provide useful habitats for native flora and fauna and attractive play sites for children.

Some of the declared parks have been incorporated by adjacent landowners into their properties, through fencing, and construction of facilities on that parkland.

Boating

Port Hacking is ideally suited to small vessels. The waterway is protected, there exists a number of points of interest and recreational areas accessible from the waterway, and competition with large boats is restricted to areas where there is sufficient depth for such boats.

Maritime Services Board (Pictorial News 4-3-1987) report that *"Port Hacking... is one of the most intensive areas of weekend boating activity in N.S.W."* House boats and ferries are available for hire and ferry cruises operate in the summer months.

The Maritime Services Board advised in 1988 that there were about 1200 moorings in the Port. About 100 of these were used by large craft which sometimes have difficulty getting in and out of the waterway. [1]The majority of large boats in the Port use the Port as a safe harbourage, and need channels to the deeper mouth of the Port. Particular difficulties of access arise where large vessels seek access upstream of Gunnamatta Bay. The pressure to assist these users with better access to the Port has been a major factor in proposals to carry out engineering works within the Port, such as dredging and marina development.

A Marina exists in Gunnamatta Bay, three in Burraneer Bay and Yowie Bay as well as various yacht and sailing clubs to service the needs of the Port and visiting seamen. At least 6 boat ramps exist on the Northern side of Port Hacking to service the needs of the small boat owner.

Conflicts and problems

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[1] Notwithstanding that the Port is considered sufficiently deep up to Hungry Point to be designated as a vessel anchorage.

Shoaling is a natural process. It is part of the dynamic system that has maintained itself for centuries. The estuary is more threatened by indiscriminant and uncontrolled use by man, his machines, his waste and man-made changes to the waterway. Shoaling is not threatening any part of the estuary coast line, nor adjoining properties. In fact it protects these against erosion by current and waves.

As development has crowded the waterways in the vicinity of Sydney with leisure craft, pressure has increased to open up Port Hacking for larger boats. An increase in large vessels has added to the pressure for radical "solutions" to a perceived "shoaling problem", which is essentially an access problem for larger vessels.

The pressures caused by demands for boating facilities have been compounded by a number of trends :

- innovations in recreational watercraft such as jet-skis, new materials and construction techniques, and access to these through increased affluence.

- initiatives by marina operators to capture the tourist/casual hire market.

- an increase in the number of "trailerable" or easily transportable craft, which are launched from ramps, beaches, and from waterfront homes

These factors in turn compete with

- increased awareness of natural values, and attraction to natural amenities and natural features to enjoy them in their own right, and to seek tranquillity.

- greater community concern for preservation and conservation of natural resources.

The conflicts are exacerbated by

- lifestyle changes, including increased leisure time, "fitness"-oriented pursuits, health awareness

- increased community mobility through high motor vehicle ownership levels

The capital intensive nature of the infrastructure required to support larger vessel usage also poses economic problems for local and state taxpayers, who are generally called upon to provide or subsidise boating infrastructure. According to the Public Works Department the maintenance of boating channels within the port has an annualised cost of around $100,000 to $200,000.[1]

In 1986 a major "solution to the shoaling problem" was proposed in the form of an artificial constriction of the Port. The definition of the existence of a "Problem" which needed to be "solved" was a reflection of implicit judgements about which social and recreational values ought be paramount in relation to this waterway. The community opposition which arose was a rejection of this value judgement.

Since the Public Works Department withdrew this proposal, Sutherland Shire Council has committed $500,000 in dredging, funded as a "once off" grant from the NSW government. Such dredging is likely to provide only a temporary navigation benefit, and will have an uncertain environmental impact. In 1992 a series of non-public consultations continued between the Public Works Department, the Maritime Services Board and boating and development interests with a view to enhanced recreational boating facilities. No similar attention has been directed by the state government to either the environmental preservation or the amenity for other users, which suggests that boating interests are the paramount concern of the relevant government authorities.

Risks Associated with sediment removal

The removal of sand, either for the purpose of improved large vessel access, or for the commercial exploitation of the

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[1]Environment Impact Statement, Port Hacking tombolo December 1987

sand, is not without substantial risk. The design of any sediment removal plan is limited by the available modelling techniques used to predict the consequences of such activity. Models are limited by the number of dimensions they can deal with, the degree to which they replicate the real world of nature (where multiple variables, often non linear in nature, interact); and the processing capabilities of the techniques and technology in use. The models in use are in general two dimensioned, and are technically limited to three dimensions (ie they may deal with the impact of wind and wave, but not tides, or they may deal with wind and waves tides, but not the effect of gravity upon the sand, or the effect of river inflow). There has been insufficient validation of the known models to allow one to say with confidence that even within their limited dimensions they are reliable reflectors of what will happen, and the processing techniques in use are unable as yet to cope fully with the complex interactions of multi-dimensioned non-linear algorithms such as are seen in turbulent and chaotic systems.

Investigations in 1987 failed to identify even one instance where such modelling had accurately predicted the consequences of engineering works in managing sediment in estuarine system. A number of examples of such modelling failing, leading to major adverse consequences can be identified. Primary examples are the impacts of construction within Botany Bay (changing the nature of wave and sediment movement in such a way as to remove entire beaches); or in the case of the Tweed river, the construction of control measures which have failed to achieve the intended purpose, at the same time having allegedly commenced the deprivation of Northern beaches of their normal sand renewal.

In February 1988, Messrs Short and Cowell of the Coastal Studies Unit of Sydney University put the issue in these terms

Natural coastal-marine environments involve highly complicated and interrelated processes of both physical and biological kinds. Engineering works in such environments are always fraught with risks which result from responses of the natural processes to these works. Such responses are often unforeseen and difficult to predict given presently available knowledge. "State of the art" scientific and engineering knowledge about these environments is far from definative. [1]

Foreshore limitations

The geography of Port Hacking is an important factor in any discussion of the provision of boating facilities. The Southern foreshore is mainly National Park. The Northern foreshore is developed as urban residential. The waterway has natural estuary shoaling and a riverine delta. Combined, these are seen by a section of the boating community as restrictive for existing pursuits, and constraint on growth of boating activities.

The foreshore within the Royal National Park is a significant component in the recreational amenity of the Port. Established picnic areas such as Audley, Bonnie Vale and Jibbon Beach are heavily patronised. Almost all of the National Park's foreshore is now being sought out for various purposes. The increased watercraft population has increased access from the waterway to areas previously considered remote. Whilst this has expanded recreational amenity, it has created serious management problems for the park authorities. The impact is a consequence of picnicking, camping (notwithstanding a restriction against camping within 1 km of the Hacking River within the park), and on and off-trail tramping. Large tracts of foreshore are suffering from litter, vegetation damage and tree chopping for campfires. The management problem is magnified by the inaccessibility of most of the Park foreshore by vehicles.

The Northern foreshore's existing recreational identity in the wider sense is

[1] P.J. Cowell and A.D. Short *Risk Appraisal for Proposed Port Hacking Tombolo.* **Coastal Studies Unit, Marine Studies Unit, Sydney University February 1988.**

focussed in the Eastern extremity of the estuary. There are three reasons for this. First, the major foreshore sites (which have regional significance) are located there. Second, boat mooring has been most sought-after in this area because of the proximity to the sea, and perhaps because of minimised constraints from the shoals. Last, the nature and extent of urban (private residential) development on the waterfront has alienated most of it from the general public. There are some reserves, but a lot of these are difficult sites because of the steepness of the terrain.

Launching ramps have for some time been a source of complaints because of their inability to meet demand at peak times. Their location in residential areas can be a source of difficulty for the boater and the resident.

Many small craft are rigged and/or launched independent of launching ramps, generally at reserve sites with beaches. Jet-skis. sailboards, skis, smaller sailcraft, canoes and kayaks fall into this category. This is a rapidly expanding recreational market. These pursuits are generally motor vehicle-related in these circumstances.

The provision of foreshore-based facilities is limited by the steep topography, and extensive waterfront and foreshore residential development. Against the pressures for expansion of facilities, the increase (in volume and scope) in activities has brought conflict . A subjective but important issue is whether some of these activities or craft types are appropriate for all or part of the waterway. Some aspects of vessel use (fouling by oil, dumping of waste, and adverse effects of power vessel access across shallow seagrass beds) cause environmental degradation. Additionally, some irresponsible users of powered vessels cause nuisance, and danger for swimmers and small non-powered vessel users of the Port.

Public safety

Public safety issues have become increasingly prominent, mainly through the emergence of new types of, and/or

inappropriate use of powered craft. Of particular concern are jet-skis, overpowered and misused skiffs, and waterskiing in some circumstances and locations. These detract from the enjoyment of the waterway by other users. Diving and snorkelling are two activities which have had a history of major accidents involving powered craft, where dangers associated with powered craft compounded by diver carelessness can create potential hazard.

Environmental quality

The relatively unpolluted status of the waterway is under threat from a number of sources identified by the Pollution Control Commission in 1990 - the runoff from residential Helensburgh and National Park pollutant sources (such as animals, development of paths and tracks) and the adjacent residential developments being major among these. Possibilities of pollution arising from shipping which moors at the mouth of the Port, waste discharge from recreational vessels, and the movement of sewage from ocean outfalls also exists.

To the South and the West, the catchment of Port Hacking is part of the dissected Woronora Plateau, reaching a height of 350 metres just to the South of Helensburgh. The catchment receives the highest rainfall of the Sydney region. The Royal National Park occupies a large portion of the Southern catchment.

The catchment provides conditions favourable to erosion. Present growth of the riverine delta near Grays Point entails transport of more than 10,000 cubic metres of sediment per annum. Wherever the natural vegetation remains undisturbed such as within most of the National Park, large amounts of sediment are not normally introduced into the streams, though occasionally (such as after a large bushfire) some sediment reaches the Hacking River. Bushfire affected areas have been found to suffer soil erosion for as long as a year after the fire, and in circumstances of high rainfall after serious bushfires such as have occurred in recent years this recovery period may be longer .

Around the Southern and Western parts of the catchment, deforestation, farming, mining, the construction and maintenance of roads and railways, power lines, other land clearing activities and recreational pursuits from time to time cause large amounts of sediment to enter the waterways. The urbanisation of areas of Heathcote, Helensburgh and other small localities such as Waterfall and Otford has released additional sediment into the streams.

Throughout the area adjacent to the Port, and particularly along its Northern foreshores, extensive urbanisation has created conditions for the input of sediment and other contaminants (chemical, oil, fertiliser). Sediment input from this part of the catchment still continues because of uncontrolled construction practises.

Stormwater from urbanised areas is the greatest single waterway contaminant. The absence of reticulated sewerage in some areas, particularly on the Southern shore, magnifies the problem.

Although the National Park constitutes a significant portion of the catchment, this does not in itself safeguard the Hacking system from more sediment and contaminants than is acceptable. Within the park itself, there are factors which can pose problems for the waterway.

- feral animal induced siltation

- human contaminants

- the erosion effects of bushfire

A summary of pollution concerns

- sediment and contaminants enter the waterways from the entire catchment of the Hacking system, including the Royal National park.

- activities around the headwaters are degrading and pose threats to the waterway. Particular problems arise from activities on freehold land in the Southern catchment area where land use practices, recreation activities, urban consequences, eroding fire trails and so forth all impact upon the total catchment. In addition, pollutants arising from the Colliery adjacent to the Southern catchment, and runoff from a council tip, both enter the Hacking system.

- construction practices and input through the storm-water system continues to cause degradation from the urbanised sectors. Councils and developers must accept responsibility for the deficiencies in codes and practices which has seen unacceptable sediment input from urban development in general, and foreshore development in particular. As well as sediment input, the cleaning down of concreting equipment agitators, pumps, equipment and the like during construction relies on runoff to dispose of the waste.

- urban runoff has been exacerbated by a significant change in the ratio of paved and sealed surfaced to naturally vegetated, undeveloped land. The overwhelming proportion of sealed surface is motor-vehicle related. runoff is therefore not only substantially increased, but contains related contaminants. These contaminants are magnified by domestic and commercial car maintenance practices.

- head of bays on the Northern foreshore have been seriously degraded by sediment and by storm-water borne refuse. Poor road work management, the absence of adequate trapping devices, and community indifference, ignorance and antisocial behaviour are the principal contributors.

- contaminants in urban runoff arise from domestic activities such as the use of pesticides, weedicides, fertilizers, the washing of painting equipment, domestic chemical cleaning agents and domestic animals.

Current proposals to increase the size of Helensburgh by some 1200 or more residences have highlighted the fact that notwithstanding the status of the Hacking River as a Class "P" protected waterway, substantial amounts of effluent, silt and runoff are introduced into the waterway in the upper reaches from residential development, the colliery, from industry, from runoff from a substandard council tip and from poor management practices by Wollongong Council. A distressing element is that the body charged with enforcement of the laws (the SPCC) has elected not to require that any steps be taken to alleviate it. Traces of Nitrates and Phosphates cause the death of native plant species along the river banks of the Hacking River, creating conditions under which introduced species secure a "foothold" and thence spread weed contamination through the National Park. More concentrated pollutants flow through the system into the Port and are having (unquantifiable) adverse effects on the marine ecology of Port Hacking.

Aesthetic values

Port Hacking is an unique and valuable environmental resource. Its environmental value is a composite of its beauty, the ecosystems it supports and the characteristics of the foreshore which defines it.

Appendix vii of the Public Works Department Environmental Impact Statement for the proposed Tombolo in 1987 pointed out that:

The focus of Port Hacking is the large expanse of water. Being a fluid medium, the water contrasts with the surrounding landscape, its distinctive features being its ephemeral nature, its flatness, smooth surface, sense of depth and its intense blue colour (on a sunny day). The constant movement of tides and waves is an identifying quality of the body of water.

The water based activities of boating and sailing upon the water's surface are a varied and rich addition to the appearance of Port Hacking. The water leads the eye around headlands to more distant reaches of the river and its tributaries, thus providing Port Hacking with an overall sense of unity. The water of Port Hacking is of high visual quality.

People are drawn to the ever changing body of water with its backdrop of sandstone cliffs, beaches, deep bays and the predominantly natural setting of the Royal National Park.The geographic relationship between the Port and the National Park is of great significance. The Port is the transitional barrier between the urban development of the Northern side of the waterway and the Royal National Park. It frames the physical and recreational environment of the Park. The park also frames the attitudes of residents and visitors to the Port. The desire for safe recreation in the confines of an unspoilt parkland is a paramount consideration of most user groups.

Developments some distance from the waterway can be visible from it, if built on surrounding high ridges, or if physically substantial in themselves. For example, the Sutherland Hospital can be seen from large sections of Yowie Bay and The Broadwater. High rises in Cronulla are visible throughout the Port.

Residential development has progressively modified the natural foreshores of Port Hacking in terms of vegetation, and, more recently, the topography. Vegetation continues to be replaced by residential development. Increased affluence (aided by modern technology) has allowed developments in places which previously have been too difficult to exploit. This affluence has also meant that developments are more imposing, and there is an increasing tendency for development to dominate the landscape.

The waterfront has in many places been modified by the construction of sea walls,

the erection of Permissive Occupancies (PO's), the provision of residences, reclamation, etc. Many recent PO's have become large and obtrusive. Large scale excavations along the foreshore, for the purposes of constructing swimming pools or boat facilities are increasingly evident.

The waterway's vista qualities are affected by the large number of boats moored, by the intrusion of marinas (as in the case of RMYC, Gunnamatta Bay), by the provision of navigation aids, by water-borne rubbish and water discolouration. Bays have increasingly taken on the visual attributes of mere parking lots for boats!

In the 1988 Draft Port Hacking Management Study, a survey of the visual attributes of the Port was reported (Section 6.1). The natural beauty of the Port has been diminished by unsympathetic developments along the foreshores. The only areas of residential development which had retained a high visual quality are the village-like residential areas of Maianbar and Bundeena. Even these areas are the subject of intense pressures for the construction of developments of the type which have had the demonstrable effect of diminishing the visual environment. Since the time of the survey, areas identified as being of high visual quality for their natural character and low key development have been transformed by the removal of native vegetation and its replacement by multi-story brick and tile houses directly abutting the foreshores, and with no visual link to the aesthetic context within which they have been built. The presence of a Foreshore Development Code has not had the desired effect of preserving the aesthetic qualities of the Port foreshores.

Development codes are in place to maintain and effect high visual standards. Despite these codes, developments occur which cause major modifications to the landform, remove large areas of native vegetation, and result in landscape-dominant structures. The obvious conclusion is that for one reason or another, existing waterfront and foreshore codes are not achieving their objectives.

The marine ecology

The ecology of the Port is a consequence of the same features which create its unique visual quality - the clean waters, the extensive sand shoals, the protected seagrass beds, and the interaction between the relatively unspoiled waters and the protected shores of the Park.

Port Hacking contains a number of sites which have been afforded some level of protection because of their environmental value. These are the Shiprock Aquatic Reserve, the Basin (including Cabbage Tree Creek), and South West Arm.

Among the major elements of the aquatic environment of Port Hacking are the three major aquatic vegetative habitats important to the productivity of the estuary. These are seagrasses, mangroves and saltmarshes. The three different habitats are colonised by distinct estuarine food web. The vegetative areas also provide sheltered and stable areas for juvenile and adult estuarine organisms. Species which benefit from the food and shelter provided by these habitats range from birds to fish to encrusting algae.

Human activities within the Port are almost exclusively recreational. Some of these have an adverse effect on water quality, and others such as swimming and fishing rely on good water quality.

Adverse consequences on water quality derive from a combination of factors, not the least of which is the total boat population. Most of the boats stored in-water lie in the Eastern section of the Port. Boating facilities are similarly located. The combination of fuel spillage, through-hull sewerage, waste thrown overboard, boat maintenance and anti-fouling all contribute to deterioration in the marine environment being most apparent on the Northern shore.

Tidal flush (the exchange of water caused by the ebb and flood of tides) varies markedly throughout Port Hacking. In the principal waterways, tidal flush is effective in exchanging water in a brief period. However, some areas have a poor

exchange pattern. In these locations, surface pollutants can also be trapped by the wind and simply rise and fall with successive tides. Heads of bays (where stormwater outlets are located) and deep water areas within the Port are poor exchange sites. If boat maintenance is combined with these locales, concerns about water quality are real.

Pollution arising from Boating

- the risks to marine ecology posed by boat anti-fouling which has been demonstrated to create a poisoning effect on marine ecosystems, in particular from slipway and other boat maintenance.

- through-hull boat toilets.

  Boats with through-hull toilets discharge raw sewage directly into the waterway. At peak periods, dozens of pleasure craft congregate at popular anchorages such as Jibbon Beach, the head of South-West Arm etc. Swimming is popular at some of these anchorages. The Sutherland Council policy against such pollution, whilst laudable, is hampered by jurisdictional and enforcement limitations.

- careless and negligent marina and boat-shed operations (e.g. fuel spills, floating debris etc.).

  Fuelling results in spillages through accidents, faulty equipment, negligence etc. Inappropriate siting of fuelling facilities can magnify the problem. Floating debris is not only sourced from these facilities. Piles, pontoons, and closely moored boats etc. trap floating debris around the site.

- galley waste, engine exhausts.

  Galley waste on most craft is discharged into the water. It can contain detergents, fats and greases and food scraps. Engine exhausts can leave traces of fuel and products of combustion on and in the water. Two-stroke motors (outboard motors) leave visible films on the water surface. The long term effects of this in an enclosed

waterway has not been investigated. It has been reported that boat exhausts can be smelt and tasted by swimmers at various sites within Port Hacking visited by boats.

- bilge waste.

    Boats with inboard motors have engine oils, fuel residues etc. mixed with any water which may accumulate in the bilges of a boat. Many owners dispose of this waste by simply pumping it out into the water. Some chemical treatments are available to ensure a detergent-type of dispersal. However such wastes are often carriers of high concentration of damaging phenols.

Commercial vessel Pollution

As Port Botany has replaced Port Jackson as the Sydney gateway seaport, there has been an increasing frequency of vessels using Bate Bay and the area East of Port Hacking as an anchorage. Botany Bay handles the major volume of Sydney's petroleum products shipments. A high proportion of the shipping turnover through Botany Bay is from overseas.

"Day to day" risks include

- discharges include normal ships' waste, e.g. sewerage and refuse

- ballast.

    Lightly loaded and unloaded vessels take on water as ballast to enhance their sea riding. This ballast is discharged at the vessel's destination, prior to loading its cargo. The ballast water discharged by many vessels which anchor in, and off Bate Bay, was taken on overseas. Ballast water may contain organisms and contaminants which are highly undesirable Australia has already seen (in relation to the Tasmanian fishing industry) how species introduced through ballast can produce adverse environmental effects.

- accidental spillage of fuel oil, liquid cargo.

    An accident resulting in the grounding of a cargo vessel (the Kouros) on Cronulla's

beaches has already occurred. Such an accident brings home the reality of a consequential environmental disaster should such an accident result in a large quantity of petroleum products entering Port Hacking

Recreational Impacts

In addition to the resolution of the environment damage arising from inappropriate boating activities such as power boating in shallow seagrass beds, or leaching of chemical pollutants from boating, some additional recreational activities give rise to adverse environmental impact.

- over-fishing, particularly of juvenile species, can adversely impact on the health of the marine eco-system, and reduce future recreational use;

- bait gathering, and gathering of shellfish and other crustacea, is a constant problem, even though this is illegal in parts of the Port. This particularly so in relation to the activities of a number of ethnic groups who are generally unaware of the damaging impact of such activities. At the present time the foreshores of the Port are essentially denuded of all crustacean colonies of an edible size, and the process of further harvesting continues unabated.

- the disposal of rubbish into the Port, from either the foreshore or from boats.

The Metropolitan & Districts Professional Fisherman's Association, in opposing the construction of the proposed Tombolo in 1987 highlighted the importance of the Port as a fish nursery.

The Association believes that estuarine waters are important places which should not be interfered with by the schemes of man .... We believe that this action will result in the destruction of the principal nursery place of Port Hacking's estuarine system and lead to the virtual extinction of many of the marine creatures which now find sanctuary there in the shallow waters of the sand delta after having been spawned in the frontage waters of the Tasman Sea.

The sand delta is an ancient place put there by the ocean thousands of years ago and it is an integral part of the ecology of the estuary held in a delicate state of balance with the rest of the environment...........

The estuary of the waterway is rich in a wide range of marine creatures and if properly managed, it can be expected to continue indefinitely as a place of natural and renewable resource. At the same time, it can serve as a recreational area for fishing, boating, swimming and other forms of aquatic enjoyment and remain a place of unspoiled beauty.

The assumption that fish catches are based on a renewable resource that can be harvested forever is sound, providing that the integrity of the estuary is maintained in an ecologically viable condition.

The Museum of Natural History, the CSIRO, the Coastal Studies Unit of Sydney University, and Wollongong University's School of Geography, the NSW Pollution Control Commission and other bodies concerned with the marine ecology have all reinforced the view that the marine ecology of Port Hacking is a unique resource, the importance of which goes well beyond its immediate economic and recreational utility.

Economic resource

It is not possible from the available data to determine just how much economic value is generated by Port Hacking, nor how much of this value is created in Sutherland shire.

Port Hacking is already an important economic resource for the Sutherland Shire. Recreational visitors to the Port provide the economic mainstay for shops and ferry services within the area. The waterway supports a number of suppliers of recreational equipment - canoes and kayaks, jetskis, wetsuits, boats and boating gear, fishing equipment, bait, swimming costumes and the like. Local shops supplying food and "consumables" draw a substantial clientele from visitors to the Port.

There are various suggestions for increasing the economic rents achieved from Port Hacking. Sand mining has been suggested, though the limited availability of high quality construction sand within the Port, the costs of recovery, and a number of environmental difficulties makes such an approach unlikely until present sand resources close to Sydney are exhausted. However a proposal to this effect is included as an option within the Third Runway Environmental Impact Statement, and proposals for sand mining in the area off the National Park to the South of the mouth of Port Hacking are under active consideration. Tourism and increased boating have been considered to be more appropriate means of commercial exploitation.

The nature of the Port makes it difficult to exploit these economic potentials without damaging the characteristics of the Port which create its value. Opening up the Port to larger vessels would necessarily involve dredging, the construction of waterside facilities, increased water pollution, and a disruption of the amenity of the area for the large number of foreshore and small vessel users who are the major users of the Port. Tourism will involve a greater number of visitors with the attendant increase in pollution, the loss of the

"quietness" of the area, possible destruction of aboriginal sites and other unique features, and the effects of the construction of additional facilities.

A SCENARIO FOR THE PORT

What is the future for Port Hacking?

Pessimistic scenario

Foreshores

An ever increasing foreshore recreational use, uncontrolled in terms of the impact on the amenity of residents, the destruction of foreshore habitats due to uncontrolled harvesting of crustaceans, and an increasing problem of foreshore littering and pollution due to irresponsible fishing practices, and failure to collect refuse.

A reduced foreshore recreational amenity due to noise, competition with small vessels, and diminution of the quality of the experience due to flotsam and floating pollution.

Waterway

Increased competition for a declining area of navigable waterway, with accessible areas crowded by marina development, and by unmanaged moorings. Increasing accidents due to crowding and mixed use.

Diminution of the boating experience due to delays and conflicts in securing access to recreational opportunities.

Ecology

A diminished habitat, with the areas of fish nursery criss-crossed by jetski and small vessel trails, and reduced by partially considered short term dredging. Water quality severely reduced by the combined impacts of boating pollution, foreshore runoffs, and the declining quality of water entering the system from the Hacking catchment.

The resultant impact on the marine life impacting adversely on fish catches, and the direct impact of reduced water quality adversely affecting the experience of all users.

Aesthetic quality

The foreshores ringed by red brick and tile, or the more modern pink stucco and

palm tree construction style, with native vegetation reduced to remnants in those areas which are under the ownership of the National Parks and Wildlife Service.

This is the likely scenario given current mismanagement. The initiatives proposed by Sutherland Council (The Draft Plan of Management) and of the State Government (Total Catchment Management) are inadequate to prevent this scenario, because of the restrictions imposed by jurisdictional limits, and the influences of political vagaries to which these bodies are susceptible. The proposal for an extension of the Royal National Park would not address the majority of the causes of the deterioration in the Port and the reduction in its recreational and residential amenity.

A preferred scenario

A foreshore which offers clean waters and uninterrupted quiet enjoyment for swimmers, picnickers and walkers, and for those who engage in recreational activities compatible with these foreshore uses such as sailboarding and wave riding. The foreshore would offer sufficient facilities for all to enjoy it in comfort, and be sufficiently patrolled and maintained to protect its advantages for future users. It would be protected against the adverse effects of over-enthusiastic foraging and fishing by a combination of controls and education, enforced where required by properly empowered authority, and through community involvement.

The waterway would offer good access to suitable areas for different types of vessel, with deeper keeled vessels having good access to and from the sea and safe and well serviced mooring and maintenance facilities.

The future amenity and environmental values of the Port are safeguarded by a combination of responsible and well educated usage, the allocation of appropriate areas for different uses, in-built controls over the creation of pollution and its infusion into the waterway, and the absolute prevention of damaging run-offs and pollutants into the waterway.

The foreshores would provide ample opportunity for individuals to design houses which meet their needs, but without diminution of the aesthetic appeals of the foreshores, when viewed either from the waterway or other vantage points.

Making the difference

The difference between these two scenarios is not only the appeal of the latter relative to the first. It is also in the underlying approach and philosophy to managing the Port for both present and future uses. To achieve the better outcome is unlikely given the present planning and community involvement approaches of the relevant controlling authorities. These could be characterised as "incremental" and "development focussed"

What is required is a strong stance based on the ideal picture of how the community wishes the Port to be. Without some major restructuring of the approach taken to managing the Port, we do not believe that anything other than a version of the first scenario is achievable, regardless of the good intentions of the present authorities.

To ensure that the second scenario is the one which ensues requires

• that the community is involved in a genuine way in the entire process of determining the priorities for the Port, and in the development and implementation of planning proposals;

• the removal of the host of jurisdictional and administrative impediments to achieving an integrated approach to the future of the Port; and

• a genuine commitment to a desirable vision for what Port Hacking could and ought be like, such that all those involved can maintain the pressure to achieve that desired end, notwithstanding the many barriers which undoubtedly exist.

The Planning Challenges

The planning challenges are

a. **Balancing competing uses of the Port**

b. **Preserving the environmental quality of the waterway and its surrounds.**

c. **Facilitating the recreational use of Port Hacking within the context of the first two challenges**

It is anticipated that in the next few years these challenges will present themselves :

a. as planning applications for foreshore constructions, on the Southern side of the Port as well as on the Northern shore.

b. in pressures for increased tourist facilities, including accommodation, waterway tour boat access, and foreshore construction.

c. as demands for a major "solution" to the difficulties of large boat access throughout the Port.

d. in diminishing water quality as a result of increased runoff.

The conflicts which are beginning to emerge are symptomatic of the factors outlined earlier in this plan. Partial solutions will not resolve the underlying planning challenges. A fully integrated approach, tied to a clear sense of the need to preserve the Port environment whilst facilitating appropriate community uses is the only way that the planning challenges can be met.

In addition to the broader issues already addressed, at the present time some major issues are under consideration in relation to Port Hacking :

* The proposed extension of Helensburgh by approximately 800 to 1200 dwellings. This proposal will entrench the present water pollution arising from the Helensburgh area of the Hacking Catchment. This pollution arises from urban run-off coupled with significant pollutants arising from a poorly managed council tip and from colliery operations in the area which regularly give rise to silt and coal waste pollutants entering the waterway. In the past, pollution from industrial sources has been a direct cause of the loss of the platypus and water rat populations in the Hacking catchment[1].

Notwithstanding the categorisation of the Hacking catchment as Class "P" protected waterway, which prohibits any run-off which will adversely effect native plant growth through the effects of traces of Nitrates and Phosphates, the State Pollution Control Commission has elected to ignore this ongoing pollution problem. The SPCC appears to have agreed contrary to statute to allow ongoing breaches of the Act as a basis for permitting the additional development to proceed.

* The Sutherland Shire Council has in place a Foreshore Development Code which ostensibly prevents further deterioration in the foreshore through inappropriate development. This Code has in the past proven to be only a partial solution to the problem, due in part to jurisdictional problems. This Code was reviewed during 1990, but there are no indications that the review has given rise to any appreciable improvement in the situation.

* The Sutherland Shire Council has proposed redevelopment of the head of Gunammata Bay. This proposal is substantially based upon the perceived need to improve boating facilities and to provide facilities for increased tourism. No overall assessment of the capacity of the Port has formed the basis of this plan, and no attempt to

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[1] An industrial spill of acid near Helensburgh in the late 1970,s

consider the specific ends being sought by such a proposal has been made.

* Complaints about jet-skis are continuous and increasing as the number of such craft on the Port increases. The majority of problems attributable to jet-skis result from grossly irresponsible behaviour by a small number of users. The problems include significant noise pollution, damage to seagrass beds, harassment of swimmers and non-powered vessel users, and in recent times harassment of dolphins visiting the Port.

* A draft Tourism Strategy for Sutherland has raised fundamental issues about the purpose of tourism in such an area as Port Hacking and the best ways of managing the tourism resource. With the failure of the Sutherland Council to address the "ends" for which such a strategy might be a possible "means", and to address the major problems arising from the present inadequacies of basic facilities to manage the present visitor numbers, a number of long term planning problems have been highlighted. These include:
  * deficiencies in the present infrastructure for tourism;
  * a the lack of any integrated view about the priorities for managing Port Hacking ;
  * the absence of a system of community input into the plans which will impact upon their uses of the Port; and
  * difficulties relating to jurisdiction over the Port and surrounding areas.

The Need for an overall Plan

Port Hacking is the subject of a plethora of planning instruments and controlling bodies[1]. These include

* The Sutherland Shire Council, with authority over the urban foreshores of Port Hacking, and with responsibility for administering the Foreshore Development Code and other planning and control instruments under the authority of the Local Government Act.

* The Maritime Services Board, who ostensibly control the activities of boating and other users of the waterway, and who are responsible for the facilities planning for boating and other such uses, including the placement and control of moorings.

* The Lands Department, responsible for foreshore public lands and for the granting of leases or licenses over publicly owned lands such as are required when a landowners' proposals involve the construction of a slipway or other construction extending past the high water mark into the Port.

* The Department of Minerals and Energy who are responsible for sand mining and extraction proposals, and for the granting of exploration or extraction licenses. Such licenses have the potential to affect the topography of the Port and surrounding waters, and to affect tidal and other water-flow patterns as well as sand movement patterns.

* The National Parks and Wildlife Service, which has responsibility for the Royal National Park, which includes many of the more heavily used areas such as Bonnie Vale, and which extends into some sensitive areas of the waterway.

* Wollongong Council, which has responsibility for Helensburgh which

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[1] These are detailed in the Public Works Department Environment Impact Statement for the Tombolo, 1987 pp.50-56.

feeds into the Hacking River Catchment.

* The Department of Mines through its responsibility for the management of coal mining in the upper catchment of the Port, which is in turn a major pollution source for Port Hacking, is also involved in the water quality of the Port.

* The Department of Agriculture and Fisheries have responsibility for the preservation of the fishing resource within NSW, which includes a role in the management of all activities which can have an impact on fisheries and fish hatcheries in Port Hacking.

* Major issues in relation to the management of Port Hacking arise by virtue of the importance of road transport for access to the Port and the surrounding areas including the National Park. The R.T.A. (coupled with Sutherland Council) is responsible for much of the provision of access, which in turn has an impact in terms of number of users, parking and related facilities, and run-off catchment for roads and during road construction or repair.

* The management of run-off from sewerage and rainwater run-off is managed by the Water Board. They are also responsible for determining whether areas are to be sewered (which is significant in relation to the future development of the Southern shore), and what methods of waste treatment are appropriate. Through their management of the Cronulla sewerage treatment facility they have a direct impact on the water quality at the mouth of the Port.

* The State Department of Recreation Tourism and Racing, through subsidisation of studies, advice, and promotional activities is an indirect party to the tourist developments within the Port and to some offensive recreational uses of the Port. The Department has the potential to play a role in determining a policy for the use of Port Hacking .

* The State Pollution Control Commission has a substantial responsibility for protecting Port Hacking from pollution. It has been ineffective in eliminating pollution from the collieries, from unchecked water pollution from Helensburgh, from noise pollution arising from jet-skis and other vessels, from sewage and waste dumped from vessels, from construction activities, and from large vessels moored at the mouth of the Port. In many of the problem areas evidentiary and policing difficulties make enforcement difficult, and in other instances (such as the Helensburgh run-off), the magnitude of the problems inherited from past administrations is such as to defy simple solutions.

Community groups

A large number of community groups are interested in the management of the Port. These include

* Those specifically concerned with the environmental protection of the Hacking River and Port Hacking . The Port Hacking Protection Society and the Friends of the Hacking River are the two such groups.

* The National Parks Association, with its specific interest in the catchment of the Port, and the possible extensions to the Royal National Park to include a Marine National Park.

* Groups concerned with particular activities within the Port, particularly the Royal Motor Yacht Squadron, and a plethora of recreational and sailing clubs operating within the Port

* Resident groups representing communities adjacent to the Port and its catchment - The Bundeena District, Maianbar, Helensburgh, and Menai Progress Associations, the Cronulla Watch committee, and the various Businessmen's clubs or groups. In the case of Helensburgh a number of competing groups have arisen as a

result of the proposed expansion of Helensburgh.

*   Environmental or concerned groups with a broader interest which encompasses Port Hacking - the Nature Conservation Council, the National Trust , the Total Environment Centre, and the Sutherland Environment Center being four such groups. Other such groups include the Sporting Fishermans Association and the Marina Owners Association.

*   Academic or research institutions with a particular interest in Port Hacking. These include the Australian Museum, and the Coastal studies units at Wollongong, Sydney and NSW Universities.

*   Groups representing ratepayers and users of the Port - the political parties and the Ratepayers Association being prime examples.

*   Operators of commercial activities including the ferry service to Bundeena, cruises, and boat hire .

Many other groups have interests which touch on Port Hacking and the issues arising in Port Hacking - various groups concerned with the preservation of the rights of migrants and minorities, associations of vendors of sporting equipment and boats, those concerned with native species of plant and animal, and the environment movement generally.

Jurisdictional limitations and overlaps

The result of this complex web of authorities, regulations and interested bodies is not , as one might expect, a tight supervision and control over potentially damaging activities within the Port. What has occurred in the past has been a rule of "ad hoc-racy", with damaging impacts occurring in incremental steps through a series of decisions taken by different decision makers with no knowledge of the overall cumulative impact of the decisions being taken. Where problems are identified, or breaches of the controlling laws apparent, rectification and enforcement are hindered by the absence of jurisdiction

in any authority to deal with the whole of any problem. Coupled with this, the overlap of interest groups creates a situation where it is (at best) difficult for the regulating bodies to obtain a clear perspective on what the community wants and expects.

Such difficulties have become apparent in the inability of the authorities to resolve such recent issues as :

*   Noise pollution, damage to seagrass beds and the creation of a sense of danger to swimmers, harassment of dolphins and other such problems have been created by a small number of jet-ski users and users of powered aluminium dinghies ("tinnies"). Notwithstanding many complaints and intermittent attempts by the Maritime Services Board to catch offending individuals, the problem continues to increase. A combined strategy of control over the organisations involved in renting such vessels, use of all available enforcement bodies, and involvement of the community in enforcement and reporting has the potential to improve the situation, but such moves are hampered by fragmentation of jurisdiction and effort.

*   Attempts to secure a tight protocol controlling mooring and discharges by large vessels have encountered problems of jurisdictional conflict between Federal and State authorities.

*   Attempts by the Sutherland Shire Council to control water pollution attributable to "through the hull" sewerage discharge from vessels, whilst laudatory, are likely to be legally ineffective due to the absence of any jurisdiction to enforce such rules.

*   The pollution problems arising from the Helensburgh catchment continue notwithstanding the general recognition of the problem and the need to achieve resolution. Conflicts between different community groups, the division of responsibility between Sutherland Shire Council, Wollongong City Council, the State Pollution Control Commission and the Department of Mines has resulted in an

ongoing inability to resolve the situation, and an apparent acceptance of the likelihood that such unacceptable pollution will continue indefinitely.

* The inability of Sutherland Shire Council to develop and maintain an effective foreshore development code is a consequence of its limited control over developments below the high water mark, as well as a weak legal basis for the Code to be enforced.

Failure to accommodate community participation

The Environmental Strategic Plan of the Sutherland Shire Council states as a key objective the achievement of "a community which participates as fully and as creatively as possible in the process of environmental planning". The NSW Environmental Planning and Assessment Act 1979 also states as a key objective "to provide increased opportunity for public involvement and participation in environmental planning and assessment". To date the complexity of the range of institutions and authorities with responsibility for the Port, coupled with the lack of a structure within which full community participation can occur, have prevented the achievement of these goals in relation to Port Hacking.

PROPOSAL

IT IS PROPOSED TO ESTABLISH A SINGLE BODY WITH JURISDICTION OVER THE WHOLE OF THE PORT AND ITS CATCHENT WITH THE EXCEPTION OF AREAS UNDER THE CONTROL OF THE NATIONAL PARKS AND WILDLIFE SERVICE.

THIS AUTHORITY WILL BE REQUIRED TO ADMINISTER THE AREA IN A CO-ORDINATED MANNER, IN LINE WITH A SET OF ESTABLISHED VALUES AND PRINCIPLES FOR THE PROPER MANAGEMENT OF THIS AREA.

IT WILL HAVE ACTIVE COMMUNITY REPRESENTATION AND INVOLVEMENT.

IMPLEMENTATION OF THIS PROPOSAL WILL IN THE FIRST INSTANCE BE THROUGH AN INDEPENDANT ENQUIRY TO DETERMINE THE BEST LEGAL AND ADMINISTRATIVE STRUCTURES AND TO PROPOSE THE INITIAL DEVELOPMENT AND OTHER CONTROLS REQUIRED TO GIVE EFFECT TO THE PRINCIPLES GOVERNING THE AUTHORITY

Carringbah

Authority
Jurisdiction

Royal National Park

Proposed Marine National Park
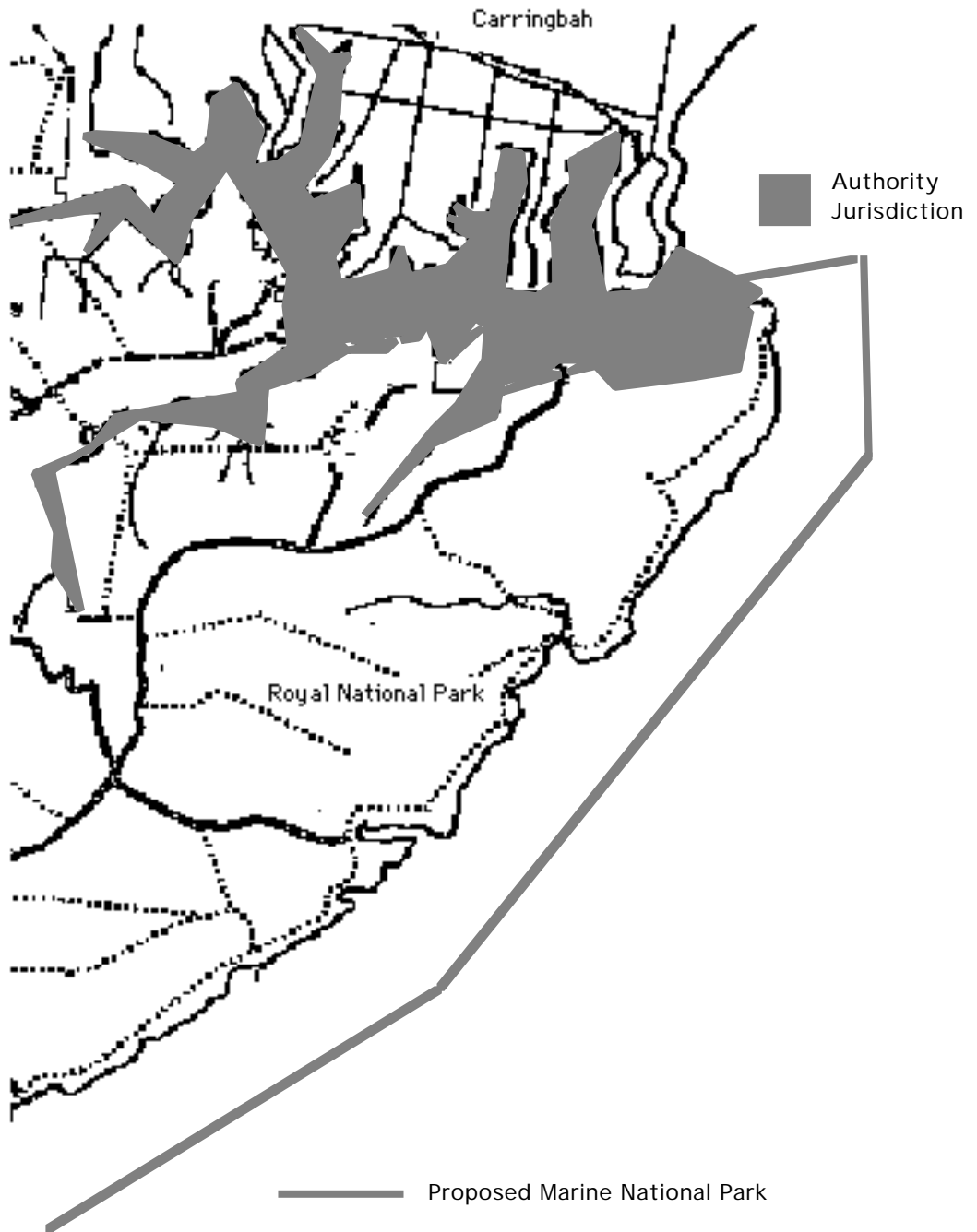
The present "ad hoc-racy" is leading to the destruction of the unique values and environment of Port Hacking. It is a policy of all those supporting this plan that administrative encumbrances to good planning be removed.

The need is for an integrated means of managing the Port, its catchment and related areas which eliminates the jurisdictional problems noted above. The mechanism adopted must be such that all the aspects of the Port are included within the ambit of the controls, and that any decisions be taken in the light of the full ramifications of the decision. Any such approach must incorporate a defined set of values as well as specific rules.

Can such a desirable mechanism be achieved? The answer must be "yes". It is an indefensible response to rely on administrative complications as a justification for doing nothing.

Implementation mechanisms

Possible mechanisms for achieving the levels of co-ordination required include:

* the establishment of a Marine National Park encompassing all of the waterway with the exception of some areas which are inappropriate for such status, coupled with a co-ordinative committee involving Sutherland Shire Council, the Lands Department, the SPCC and the other major controlling bodies. Such an approach would need to be coupled with strong public accountability and involvement.

* A Regional Environment Plan coupled with other mechanisms to ensure a co-ordinated set of planning controls

* Delegation under a legislative enactment of the various powers of the various controlling bodies to a Management Trust for Port Hacking, with this body having the power to combine all available controls to achieve a desirable long term management plan.

* The establishment of a forum for all relevant controlling bodies to co-ordinate their activities in relation to the Port in an informal manner, with the publication of an annual Management Plan and Objectives, through which the community may measure the effectiveness of the co-ordination and enforcement actions of these various bureaucracies.

The range of possible approaches is limited only by the goodwill and imagination of the bodies empowered to manage Port Hacking on behalf of the community. A combination of different measures, or an evolutionary approach, is also possible. What is not acceptable is the present lack of co-ordination and the continuous use of jurisdictional and co-ordinative complexities as an excuse for failing to properly manage this important area.

The Values Framework

The decision whether a particular development or activity is to be permitted is essentially a choice between competing values, overlaid by a subjective assessment that the risk that the technical assessments are wrong is acceptable. [1]

Community research

The report *A Study of Resident Attitudes to Port Hacking,* [2]did not report a quantitative measurement of attitudes (p.11) but suggested that the views expressed are strongly held throughout the community. Two fundamental findings emerged:-

a).   That the requirements of all sections of the community who could use and potentially use the waterway and foreshore should be considered in addressing improvement works; and.

b).   That the shoaling problem and siltation at the heads of bays be addressed not as a one off problem but in the total context of what the people want from their waterway.

"The vast majority of people in this study were in favour of some form of controlled dredging to alleviate the sand shoaling problems in the major navigational channels and siltation from the heads of bays". **(p.16)**

Congestion of the waterway was seen as a major threat to the waterway, particularly with increasing use of the Port. It was suggested that increasing congestion will lead to more conflict between:-

- boat ramp users and residents

- motor boat users and sailors

- passive and active users

- specific interest groups and the general public (p.27)

There was a general concern about the ability of the Port to adequately cope with the increased demand for access to the Port. *"Many of the waterway users in this study stressed that the Port Hacking waterways system is already overtaxed. They cast serious doubts as to whether the system could cope with increased usage in the future."* **(p.28)**

This independent research report identified what residents want for the Port in terms of what they don't want. They rejected:

"Anything which is likely to dramatically change the character of the Port and its waterways: **and**
- extensive foreshore development" **(p.29)**

It was felt that there was a need for balance between the desires of the users of the waterways - either active or passive - and maintenance or preservation of the unique charm of the Port and the Hacking River, (p.59) A lack of confidence in Port authorities was strongly identified in the surveyed group.(p.60) The most sensitive area of discussion was identified as any potential development of the Southern foreshores of the Port.(p.67) Ecological concerns dominated the discussions held by the research group. Effects on foreshores, fish communities, Royal National Park and the overall communities were all viewed from the aspect of environmental degradation.

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[1]   See Martin P.V. in "Ecopolitics 5" University of NSW May 1991
[2] Elliott and Shanahan, October 1987

A VALUES FRAMEWORK FOR PORT HACKING

The community:

a) places the highest priority on the unspoilt aesthetics of the Port;

b) is oriented towards recreational uses of the Port which involve active interaction with the waterway and foreshores.

c) Within that context, the community is in favour of improving the navigational amenity of the Port.

These research findings are important, but limited in two respects, namely:

- The study dealt with residents only, whereas Port Hacking is a regional resource and a significant proportion of the Port's users come from outside the Shire

- The study found a widespread awareness of the shoaling but failed to establish whether that awareness was well-informed. The extent, nature and causes of shoaling in Port Hacking is widely misunderstood within the local community.

A Statement of Policy

The various groups who endorse this plan do not wish to "protect" the Port from all change or eliminate any recreational use.

Responsible development can occur in ways which will not only protect the valued characteristics of the Port, but also use development as a means for redressing past damage. We wish to encourage those initiatives and developments which will enhance Port Hacking .

Within this policy framework, a number of criteria have been developed which

ought be applied to all development proposals, or to choices concerning the regulation of activities within the Port.

Suggested criteria

Does the proposal or activity facilitate all present uses?

Some forms of recreational and commercial exploitation of Port Hacking will result in the reduction of other legitimate uses. Because of their nature many of the less "machine intensive" forms of recreation (swimming, paddling, surf-skis, windsurfing and foreshore uses) tend to be ignored in the process of considering individual developments. Many of these uses are the least environmentally damaging, the least costly to maintain, and the most beneficial in terms of physical fitness and health of the participants.

Any proposal or activity within the Port ought be placed in a context of effects on the overall usage of the Port, and active consideration given to protecting the more numerous and benign uses.

Will the proposal or activity preserve the inherent physical nature of the Port?

Activities or developments which require restructuring of the Ports' topography or which will directly or indirectly contribute to changes in the ecosystem of the Port ought be the subject of more stringent restrictions than those which do not require such irreversible changes.

Proposals which involve the reinstatement of the natural values of Port Hacking and its catchment ought be actively encouraged.

Does the development or activity fit with the National Park context of the Port?

Whilst the National Park does not physically encompass the whole of the Port and its catchment, the National Park does provide the major defining

characteristic of Port Hacking. Recognising this any development within the region of Port Hacking ought be considered in the light of the impact of the proposal on the Park , and its appropriateness in association with the National Park.

Is it cost effective?

It is naive economics to do "cost/benefit" analysis from the perspective of the proponent alone, which fail to consider consequent impacts on the public purse. Yet the majority of arguments for economic benefit from particular developments are justified on this false basis. The result is that the ratepayers and taxpayers end up bearing the costs, whilst the developer secures the benefit. This form of taxation of the broader community to benefit a small number is untenable as a basis for planning.

The cost effectiveness of particular development proposals and other plans ought be carefully evaluated, but in a broad context. To illustrate: proposals to spend public money on facilities improvement ought be evaluated in the light of the effectiveness of the expenditure in improving the facilities for the total user population; proposals for private expenditure such as bringing a tourist vessel into the Port ought be evaluated in the light of the possible consequent public expenditure which will be required in the future to make that venture profitable; expansion of yachting facilities ought be considered in the light of how this will impact on future expenditures on other facilities required by this user group. Arguments based on creating an infrastructure which is dependant on attracting increased users ought not be permitted to use this as a basis for justification of the expenditure, as the likely consequence is additional public expenditure to meet the uses of that group, coupled with an artificial increase in a particular user population.

Governing Principles

Detailed sets of rules which define in minute detail the non-permissable characteristics of particular proposal (i.e. the degree of setback, rules concerning type and placement of sewerage treatment system, foreshore species to be planted, types of construction material, prohibited activities in particular areas) are important in providing certainty. Unfortunately this approach to rule making often fails to deal adequately with new activities or proposals which have not been envisaged by the rule makers. It often leads to an exploitative legalism, with proponents of activities which are clearly outside the spirit of the controls resorting to technical legal argument to achieve the result they wish. It also raises the risk (demonstrable in the failure of foreshore development codes) that the result will be a bureaucratic focus on the technical rules with little apparent achievement of the ends for which the rules have been created. Such problems have in the past frustrated the various authorities in their genuine attempts to control inappropriate foreshore development, or offensive uses of the Port.

Within the context of an overall co-ordinated management of Port Hacking, we are of the view that the technical rules ought be subordinate to a set of general governing principles. Ideally these ought be enshrined as overriding principles governing the management of Port Hacking.

Governing Principles for Managing Port Hacking

* Any proposal for development should be evaluated against the Values Framework for Port Hacking, and approval may be refused for reasons of the failure of that development to satisfy the Values Framework.

* Public infrastructure expenditure which is discernibly for the benefit of a particular user group should be provided on a "user pays" basis.

> * Strict compliance with all rules designed to protect the environment of Port Hacking ought be required.
>
> * The management of Port Hacking should be conducted in a way which encourages full community participation.

It will be necessary to establish a forum for the management of Port Hacking in an integrated manner. The management body will need a governing constitution, whether by way of an agreement between participating authorities or (preferably) through a governing piece of legislation. The mechanism for enshrining the Values framework and the Governing Principles would be in the context of such a constitution. Naturally some refinement of these principles to fit with legal wordings and format would be necessary.

The Port Hacking Plan of Management

The following recommendations have been framed with a view to implementing the values and governing principles we have outlined, at the same time accepting that many of the problems we have identified are not susceptible to simple or immediate solutions. The good management of Port Hacking involves a number of complex interactions and necessary compromises.

A. Preliminary Enquiry

A Preliminary Enquiry to be convened by November 1992 with the objective of proposing to the State Government the most appropriate legal structure for co-ordinating the management of Port Hacking. This Enquiry would be required to report by March 1993. It would be required to report on the most appropriate structure, including Regional Environmental Plans, a Management Trust, National Park status, a Co-ordinating Committee, or other appropriate mechanisms.

It would also be asked to endorse those management proposals which it feels ought be put in place immediately upon commencement of the new management Structure.

The structure of the enquiry would need to ensure that community representation and involvement is given at least as great a weight as bureaucratic input and involvement. If necessary, financial assistance would be provided to community groups without legal or research skills and resources for the purpose of ensuring that their submissions are properly prepared and presented, and that the issues are fully explored..

B. Sutherland Shire Working Party

A Working Party ought be established with a view to seeking some degree of consensus outside the Enquiry among the different groups and the officials of Sutherland Shire on all those matters where such consensus is possible. The aim is to

facilitate the workings of the enquiry.

Citizen representatives would be appointed to the working party. They would work alongside the Council officials, and representatives of those major government bodies who decide to participate in the Working Party.

The Working Party must in its earliest stages, develop through contact with the community an understanding of concerns, aspirations and expectations. This process includes early contact with special interest groups such as boating clubs, commercial operators such as boatsheds, ferry operators, sporting groups and environmental organisations.

Experience has shown that it is too late to canvass ideas and proposals at draft stage. By then, there is perhaps no understanding, a misunderstanding and even mistrust of proposals. The problem is compounded as the proposers become defensive and thus the success of constructive consultation is compromised.

By adopting a process of early and continuing community participation, debate on, and resolution of contentious issues can occur in the earliest stages of work. Final recommendations are more likely to be accepted.

As the Working Party's deliberations reach a draft proposal stage, that proposal should have the widest possible public circulation for further public comment.

C. Jurisdiction

The area to be covered by the Plan of Management ought to encompass all of the Port, the Hacking River Catchment, and a region out to sea which is considered sufficient for the protection of the Port Hacking ecosystem.

Management Principles and Values

A. The Management of the Port shall be based upon a clear espousal of Principles and Values.

Whilst detailed rules are important, proper planning and administration requires a clear understanding of the reasons why the plan exists, and the set of values which the controlling entity wishes to see demonstrated in the execution of the Plan. The espousal of the Values and Principles for managing Port Hacking ought be the responsibility of the Authority

B. The Management Values

The Values which ought to to govern all activities and developments within Port Hacking are:

Does the proposal or activity facilitate all present uses?

Any proposal or activity within the Port ought be reviewed in a context of its effects on the overall usage of the Port, and active consideration given to protecting the more numerous and benign uses.

Will the proposal or activity preserve the inherent physical nature of the Port?

Activities or developments which require restructuring of the Ports' topography or which will directly or indirectly contribute to changes in the ecosystem of the Port ought to be the subject of more stringent restrictions than those which do not require such irreversible changes.

Does the development or activity fit with the National Park context of the Port?

Any development within the region of Port Hacking ought to be considered in the light of the impact of the proposal on the Park , and its appropriateness in association with the National Park.

Is the proposal cost effective in the fullest sense?

The cost effectiveness of particular development proposals and other plans ought be carefully evaluated including consideration of the subsequent costs on the public purse, diminution of usage by other user groups, and ecological impacts.

C. Management Principles

The authority responsible for the management of Port Hacking should adhere to certain management principles in making its decisions.

<u>Governing Principles for Managing Port Hacking</u>

* Any proposal for development should be evaluated against the Values Framework for Port Hacking, and approval may be refused for reasons of the failure of that development to satisfy the Values Framework.

* Public infrastructure expenditure which is discernibly for the benefit of a particular user group should be provided on a "user pays" basis.

* Strict compliance with all rules designed to protect the environment of Port Hacking ought to be required.

* The management of Port Hacking should be conducted with full community participation.

<u>Community Education and Involvement</u>

A.Consultative process

Whilst the authority charged with the management of Port Hacking will require enforcement powers in some form, the process of managing ought initially to be based upon the use of consultation. Thus, for example, where marinas are contributing to pollution, the process ought be one of negotiating a plan of management for their pollution problem, rather than immediate recourse to law. Only failing the consultative approach should regulation be used.

Another such example would be the use of consultation between various water sporting groups and the Maritime Services Board to minimise conflict and overlapping activities.

B. Public Education

Public education campaigns will be developed to assist in building an understanding of the Port, its value, and practices for protecting the Port and its users. It is important that an attempt be made to improve the extent to which people value the heritage (natural, aboriginal and more recent) which is available to them, though achieving this result will not arise as a result of activities in relation to the Hacking region alone..

- A public education campaign aimed at adults and the younger members of the community, concerning waterway safety issues and navigation rules, and responsible environmental practices.

- Information packages to be prepared for foreshore property owners and construction companies concerning the reduction of foreshore based problems, particularly construction problems.

- Multi-lingual notices to be displayed outlining why strict rules concerning over-fishing, limitations on crustacea collection and pollution are enforced, and seeking community co-operation.

- A public education campaign will be carried out to develop responsible household/urban practices to minimise stormwater contaminants.

C. Enforcement

Improved enforcement would be sought through:

- a programme of rationalisation of the prosecution powers of the different protective agencies, using cross-reporting, combined publicised "raids", and cross-deputisation.

- development of a community enforcement programme, with community groups being provided with support in the reporting of particular offences and the gathering of evidence for prosecutions. This model which has proven effective internationally is likely to be most effective in relation to the gathering of evidence for successful prosecution of irresponsible jet-ski users and foreshore polluters.

- the allocation of sufficient resources to be effective in the policing the various regulations, (including after dark), and a re-examination of prosecution policies to affect deterrence.

- the amendment of Council laws licensing foreshore activities such as marina operation or boat hire, so that licenses to operate a particular business will be dependant upon the operator having implemented a plan to minimise wrongful use of his facilities to damage the eco-system or cause offense or danger to others.

What Future do you want for Port Hacking?

Suggestions or enquiries about this proposal may be sent to

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