REPORT ON MARINE BASED INDUSTRIES' DEMAND FOR FORESHORE LAND ON SYDNEY HARBOUR

FOR

THE OFFICE OF MARINE ADMINISTRATION

Prepared by

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EXECUTIVE SUMMARY

Marine Industry Overview

The charter vessel operators, marinas and marine repairers are about to undergo major restructuring of their industries as a result of the implementation of regulatory policies, actions of government and other market forces.

The EPA will be a force in its implementation of pollution control measures via its licensing powers under the Clean Water Act. 1979.

Changes in the engineering technology of the marine repair industry with associated economies of scale and improved labour productivity will also act to increase the size of a modern repair facility.

The above forces will have an impact on the marina and charter vessel industries due to their involvement in and dependence upon the marine repairs industry.

Smaller marinas dependent upon marine repairs revenue will be affected and some of the marginal players may become unprofitable and cease to operate. The current competitive actions i.e. the pricing policies of the Waterways Authority in the swing mooring market will, if unchanged, limit a vital source of revenue to these marinas and further impact on their revenues.

The shortage of foreshore land and the current trend to rezone the same to residential or open space uses will impact on the restructuring of these industries.

In general there is a lack of secure tenure for berthing facilities, public wharf access and foreshore land for all industries.

Capital renewal proposals for businesses in their current mode of operation are not feasible. Therefore, commitment of significant capital to meet the regulatory requirements, maintain wharf structures etc. and to provide modern and efficient marine facilities is rare.

Marine construction and repair facilities are often dirty, untidy and noisy by nature, but are essential to service a working harbour and pleasure craft and must be in locations suitable to the operational requirements of each industry.

Operational Characteristics of Each Industry

1. The Total Charter Vessel Market

From the Waterways Authority licensing data, there are approximately 190 boats licenced to operate as charter vessels on Sydney Harbour. The average length of vessel is 18.9 metres. From survey responses, it is estimated that 30% of the charter vessels use
floating berths for cleaning, victuallng or over night layover and 70% use fixed berth for the same purposes. It is noted that some vessels use swing moorings for over night layover.

As a guide, and allowing a 10 metre buffer between vessels, this usage pattern indicates a total current demand for fixed and pontoon berths in the industry of approximately 4,000 lineal metres and 1,300 lineal metres, respectively.

From interviews, the scheduled tourist and unscheduled domestic (corporate and special events) market segments are expected to grow. Remaining segments will undergo no growth.

2. Scheduled Charter Vessel Operators

A number of operators in the scheduled tourist market segment have changed hands (Blue Line, Matilda, Vagabond). This will inject new management and in particular marketing expertise. These operators are talking significant increases in their operations including larger vessel capacity. With a total scheduled tourist fleet of approximately 15 vessels (excluding Sydney Ferries) the expected increase in vessel numbers in this segment may be as high as 7-8 over the next five years. This translates to additional fixed berth space of 320 lineal metres.

Typical base facilities i.e. office, storage, staff and food preparation area required by scheduled tourist operators is 200-300 sqm. This equates to a total base facility requirement of approximately 3,000 sqm, excluding Sydney Ferries and assuming good utilization of space. Each vessel on average requires approximately 7-8 employees and generates 6 car spaces. Although, vessels of the Showboat type require 35 staff, plus 12 entertainers, and generate approximately 40 car spaces.

Most operators expressed difficulty at peak times gaining access to pick up/ set down wharves. Shelter and coach access are seen as being necessary at these wharves.

Some scheduled tourist charter operators with larger vessels often use dry maintenance facilities at Newcastle, Port Stephens, Port Macquarie and Wollongong. In these locations, it is possible to use their own labour and is cheaper to slip albeit with more expensive transit costs.

Operators in residential areas have difficulty with councils and residents in relation to noise and parking in residential streets.

Unscheduled Domestic Charters

Unscheduled Domestic operators interviewed stated that they did not intend to expand their fleet, although uncertain tenure and shortage of berthing facilities were given as given as reasons for restricting expansion. If facilities were made available, further expansion would be expected.
The total number of vessels operating in the unscheduled domestic market are approximately 174, with average vessel length of approximately 18 metres. Assuming a 50/50 split between fixed and floating berths, approximately 1,150 linear metres of each berth type may currently be required.

The larger operators operate from a wharf (or marina). Good access is required to public wharves for pick up/set down of passengers. Staff numbers range between 5-20 persons per boat with car parking between 3-15 per vessel depending on activity and the proximity of base to public transport.

Operators in the unscheduled domestic corporate sub segment expect future growth of 5-10% pa. This may translate to additional vessels in the next 5 years.

**Charter Industry Association**

The charter industry association stressed the importance of creating an environment conducive to the efficient operation of the industry. The key issues affecting cost are the minimisation of labour, vessel running costs, travel time to pick up/set down points, access for refueling and pump out, and time taken for maintenance. Base facilities should be located to minimise these costs.

The Charter Boat Association is seeking government assistance to create an integrated charter boat base in Sydney close to the CBD, with Rozelle identified as a preferred location.

3. **The Marina Industry**

The majority of marinas are on leasehold land with approximately 10% on freehold land.

It is apparent that there is a leakage of demand for marina space and associated business to outside Sydney Harbour. This is largely due to the shortage of suitable land, opposition from councils to expansion and modernization of existing marina facilities and congestion of Sydney’s waterways.

The marina industry is aware that it must concentrate on the provision of convenience to pleasure craft owners. The critical service components are ease of berthing, quality of berthing, ease of access to the berth and boat ease of preparation of the boat, ease of cleaning and rubbish removal, convenient car parking, proximity of wet and dry maintenance services and overall cost. The difficulties experienced with approval of expansion or modernisation plans is a major constraint on the industry.

Growth in demand for marina berths is constrained by the relative cheapness of private swing moorings and the relative ease in obtaining approval for a private marina.

Sydney Harbour has reached saturation point in the allocation of swing mooring space and the shortage of suitable land and water space necessitates better use of land and water. This suggests that a re-engineering of boat storage practices may be required to meet future increases in pleasure craft numbers.
The feasibility of the more efficient methods of providing boat berths (e.g. dry stack berths) with the implicit greater level of capital investment is beyond the scope of this report. However, with some 15,000 boats on Sydney Harbour, congestion of waterways by swing moorings and approximately 1,500 marina berths (before the closure of Birkenhead Point), this feasibility work appears urgent to determine the scope for “reengineering” of this industry.

Car parking for marina clients and employees remains a major problem in any reengineering of the industry.

It is expected that the implementation of stricter pollution controls on the marina industry will force the closure of smaller marinas in Sydney Harbour, resulting in a reduction of berth numbers. If marina operators are to inject more capital to re-engineer their operations to provide more efficient use of foreshore land, then the Waterways Authority will need to coordinate its activities with the industry, especially in the pricing of private swing moorings in order to promote the necessary investment environment. In any event, there is likely to be a greater concentration of ownership of marinas as some businesses come onto the market. An inevitable consequence will be an increase in the cost of berths to pleasure craft owners. Reengineering, if it occurs, may see a more efficient industry and better use of foreshore land.

4. Marine Repairers

There are 24 marinas on Sydney Harbour (including Birkenhead Point), 24 commercial boat sheds and 4 clubs with dry maintenance facilities. Dry maintenance is also carried out on private slipways in Sydney Harbour.

The average period between dry maintenance is nine months. This varies considerably between users eg racing yachts are more frequently hauled out of the water. This implies that the total market demand for dry maintenance is approximately 22,000 operations per annum of which an estimated 20% is undertaken on private slips. If EPA requirements prevented the use of private slips for maintenance, then this demand would need to be provided by commercial repair facilities.

If the EPA implement their stated performance outcomes in the next five years, then it is expected that a significant proportion of commercial slip ways will close. Private slip ways which are under utilised are likely to be busier if new facilities are not constructed. However, it is expected that the industry will respond with the construction of a number of more efficient travel lift/hard stand yards subject to the availability of suitable land and planning permission. If land does not become available due to planning constraints, and assuming that the EPA enforces the Clean Water Act as stated, then Sydney Harbour is likely to undergo a major crisis in the marine repair industry.

The industry advises that they cannot carry the cost of freehold title given current cash flow levels. This indicates that Crown land may be required with long lease tenure in order to make the commitment of the levels of capital expenditure required to construct these large travel lift facilities.
From interviews, the most efficient operation format appears to be a three travel lift/hard stand configuration. This involves two 35 tonne and one 70 tonne capacity travel lifts. The typical total land area required for this type of operation, including car parking, landscaping, set backs etc is approximately 32,000 sqm and water area is 4,500 sqm. Length of water frontage required is approximately 350 metres. Average stay is 3 days with 80% occupancy for say 65 boat bays. Annual boat through put assuming a six day working week is approximately 5,400 boats per annum.

On the basis of all marine repair works being carried out in yards of the scale outlined above, it is estimated that the total land area required to service current demand for dry maintenance work in Sydney Harbour is approximately 128,000 sqm of land, lineal wharf space of more than 1,400 metres and water space of more than 18,000 sqm. This equates to four large marine repair yards of the form outlined above.

In reality, the industry will not achieve this structure. It is likely that a number of current operators will convert to travel lift and hard stand facilities albeit of a size smaller than is most economically viable, largely due to a shortage of land and capital. Thus the industry structure may include only one or more large repair facilities and will, as a result, require additional land and water area over the amount stated above.

There will be a need for all levels of government to coordinate the planning processes to identify suitable sites for the restructuring of this industry so that a crisis is avoided.

5. Marine Contractors

There is a need for a marine contractors base in Sydney Harbour that will enable quick response to maintenance problems such as damaged public wharves etc. The location of the base should be central to minimize cost of repairs. However, it is evident that the marine contractors with a leasehold interest in this base will have a competitive advantage over other contractors in tendering for maintenance contracts.

An indicative estimate of land area required to support these operations, is approximately 20,000 sqm of land area and 750 lineal metres of fixed wharf space with good access for 40 ft trailer trucks. There is little expectation of additional space requirements.

These businesses are not easily kept tidy. The marine contractors operation is incompatible with residential use. However, they are essential to maintain the port of Sydney and must be considered in any planning process.

6. Police

The Water Police, if they are required to relocate, would prefer to be based in Balmain. They do not require additional space and currently use approximately 1,500 sqm of land.

7. Customs

Customs have no firm plans to reoccupy its Neutral Bay premises at the present time and have no plans to expand its operations.
The Customs premises, which include limited wharf space, may be suitable for alternative use, however street access is not good. This property may be suitable for adaptation to a charter vessel base.

8. **Sydney Ferries**

Sydney Ferries operate 26 vessels out of Mort Bay and provide scheduled tourist services. This market grew quite strongly and they state that it is now mature with an annual growth rate of 4% per annum. The growth area for services will be the Parramatta River, and to a lesser extent Manly. They expect to add approximately 2 vessels to their fleet over the next few years.

Sydney Ferries expressed an interest in relocating to Rozelle Bay so they could operate on a 24 hour basis without complaints from residents. They also advised that parking is a problem for staff. They expressed concern that when the adjoining Colgate land is converted to residential, this will exacerbate the problem with residents, and they suggested that they may sell their land at Balmain to fund construction of a new base at Rozelle Bay. It is believed that this proposal has not been fully considered by Sydney Ferries as little detail was available after some discussion.

Sydney Ferries stated that Circular Quay had insufficient space on the wharves for commuters.

9. **Maritime Museums**

Ideally the Sydney Maritime Museum would like an administrative, storage and workshop of 2500-3000 sqm plus 3000 sqm of hard stand in the same location as the berthing facility. The total linear length of berthing required is approximately 240 metres, which may be provided on a wharf frontage of 150 metres if end on mooring and mooring piles were allowed. This estimate excludes mooring for the James Craig which when fully rigged will not fit under the Glebe Island bridge.

Long term the requirements for mooring space and office/workshop facilities are not expected to increase as existing vessels reasonably adequately represent the marine history of Sydney Harbour and their fleet is not expected to increase significantly.

The National Maritime Museum have sufficient mooring facilities at Darling Harbour to meet their requirements. They have a maintenance facility at Berry’s Bay at the old Custom’s station. Although tenure is relatively short, they do not appear concerned.

10. **Fishing**

The Sydney based fishing fleet is small in comparison with other coastal based fleets, but accommodation is at a premium. Berthing for another 12 fishing boats would alleviate berthing pressure at the fish markets, enabling the 6 Pyrmont boats and the itinerant fleet to be accommodated. It would also help to overcome the problem of vessels tying up at the unloading jetty.
The fishing industry is being “squeezed” by quotas and regulation. If as claimed, the industry is no longer profitable, then the size of the fleet is unlikely to expand.

Conclusion

The current practice of rezoning foreshore land for residential use, if left to continue unabated and without due consideration of the marine industries on its foreshores, may result in the effective disappearance of these industries from the Harbour resulting in a lack of services necessary to support commercial shipping and pleasure craft and to maintain the many marine structures in Sydney Harbour.

All levels of government need to coordinate with the marine industries on Sydney Harbour to ensure that the restructuring of these industries occurs in an orderly and planned way so as to ensure that more efficient and environmentally responsible marine industries result. This will require an understanding of the operational processes, the cost structure and process re-engineering opportunities in each industry.

The Defence Services are in the process of disposing of significant tracts of foreshore land in Sydney Harbour, subject to further investigation as to the suitability of these lands, these lands should not be sold for residential until this planning process has reached a satisfactory outcome.

The key elements in this planning process appears to be that suitable and sufficient foreshore land should be located for each marine industry on Sydney Harbour and that the provisions of the Environmental Planning & Assessment Act should be implemented to provide land either zoned or rezoned for marine industrial use and the scope of the permitted uses under this zoning must exclude residential use.

These planning decisions need to be based upon regional rather than local considerations.

J.T. Rolls Pty Limited
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1 INTRODUCTION

The Office of Marine Administration (OMA) has instructed J.T. Rolls Pty Limited to survey the current and future requirements of users of foreshore land in Sydney Harbour.

The owners and users of foreshore land in Sydney Harbour are diverse in number and include a range of industries. These include residential property owners both freehold and strata, marine based industries, local councils and state and federal government entities.

Foreshore land on Sydney Harbour is implicitly a scarce resource. Each user is a stakeholder in Sydney Harbour whose competing interests must be properly managed to ensure efficient use of this asset and efficient operation of industries.

1.1 PURPOSE

The purpose of the report is to provide preliminary data on the structure of aggregate demand for foreshore land by each category of user by consideration of the growth prospects of the markets serviced by each user of the land and adjacent waters, together with the effects of associated regulatory bodies. It will be necessary to examine, where appropriate, the competitive structure of each user industry to ascertain future availability of capital and land and the likelihood of re-engineering of business processes that may occur due to new technology or changes in the regulatory environment.

1.2 SCOPE OF REPORT

The report is limited to users of foreshore land in Sydney Harbour. This encompasses Middle Harbour, Manly, Port Jackson, and areas west to Homebush Bay. These users are nominated in the body of this report.

1.3 METHODOLOGY

The methodology employed in the collation of data have predominantly been by face to face interview of owners of businesses, industry group representatives, and various government officials using a standard interview questionnaire. A copy of this questionnaire is included in Annexure A. This method produced by far the best response form interviewees and provided the opportunity to view first hand, the issues at hand. In addition, copies of relevant reports and industry proposals have been obtained and reviewed to assist in the assessment of each industry. Data on the leasing of waterway space on Sydney Harbour was provided by the Waterways Authority.

This report has been prepared within the time period permitted by the brief. This period was four weeks. As part of the brief for this consultancy, this report estimates the total foreshore land requirements for each industry group. These estimates are predominantly based upon interview and industry association data and are good indicative estimates of aggregate demand. This report adds that if more robust estimates are required, then a more rigorous analysis of each industry is necessary and in particular, the data provided by interviewees needs to be tested with a broader sample of interviewees in each industry.
2.0 STAKEHOLDERS ANALYSIS

There are many stakeholders that make up the players that use and regulate the use of foreshore land. The following stakeholders have an interest in the use of foreshore land:

The Stakeholders

- Charter Vessel Operators
- Public Transport
- Private Transport
- Marinas
- Marine Repairs
- Marine Contractors
- Commercial Fishing
- Defence Forces
- Maritime Museums
- Water Police
- Customs
- Recreational Clubs
- State Government
- Local Government
- Industry
- Volunteer Coastal Patrol
- Boy Scouts/Girl Guides
- Local Residents
- Pleasure Craft Owners

2.1 MARKET ANALYSIS

Further to the above, some of the above stated stakeholders operate in distinctly segmented markets. These are set out below in Table 1.

2.2 PUBLIC AUTHORITIES

The following public authorities are involved in the regulation of the users of foreshore land and waterways:

- Environment Protection Authority
- Waterways Authority
- Sydney Ports Corporation
- Office of Marine Administration
- Department of Urban Affairs and Planning
<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Market Segment</th>
<th>Sub Segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charter Vessel Operators</td>
<td>Scheduled Group Tourist Cruises</td>
<td>Lunch, Dinner and Coffee</td>
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<td></td>
<td>Unscheduled Domestic Cruises</td>
<td>Corporate, Special Events,</td>
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<tr>
<td></td>
<td>Educational</td>
<td>Novelty, and Other</td>
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<tr>
<td></td>
<td>Unscheduled Sailing Cruises</td>
<td>Bare Boat and Manned</td>
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<tr>
<td></td>
<td>Unscheduled Recreational Fishing</td>
<td></td>
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<tr>
<td></td>
<td>Unscheduled Water Taxis</td>
<td></td>
</tr>
<tr>
<td>Marinas</td>
<td>Less than 50 berths</td>
<td></td>
</tr>
<tr>
<td></td>
<td>More than 50 Berths</td>
<td></td>
</tr>
<tr>
<td>Marine Contractors</td>
<td>Marine Contractors</td>
<td>Barge Hire, Moorings, Diving, Tugs, Piling</td>
</tr>
<tr>
<td></td>
<td>Marine Ancillary Services</td>
<td>Fuel, Sullage, Waste Removal</td>
</tr>
<tr>
<td>Commercial Fishing</td>
<td>Harbour Based Seasonal Prawn Trawlers.</td>
<td></td>
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<tr>
<td></td>
<td>Sydney based Offshore Fishing Trawlers.</td>
<td></td>
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<tr>
<td></td>
<td>Itinerant Fishing Fleet.</td>
<td></td>
</tr>
<tr>
<td>Recreational Clubs</td>
<td>Sailing with marinas.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power with marinas.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Without marinas.</td>
<td>Dinghy Sailing, Power, Rowing, etc.</td>
</tr>
</tbody>
</table>
2.3 INDUSTRY STRUCTURE

The charter vessel, marina, marine contractor, marine repairs, recreational clubs and fishing markets are diverse and some understanding of the competitive structure of each industry is necessary to predict the behavior of each market.

2.3.1 Charter Vessel Operators

There are some 160 charter vessel operators operating on Sydney Harbour. The industry, as a result of its structure, is in general, extremely competitive with strong price competition between operators such that operating profits are kept at a level that discourages new entrants into the market.

The market can also be clearly segmented by customer type as follows:

a) The principal market segment is the scheduled charter vessels with the main customer, the inbound tourist. This segment is characterized by larger boats in excess of 20 metres length, with maximum passenger capacities in the range of 200 - 600 servicing a high volume of tourists who have a requirement to economically and efficiently use their time (especially tourists traveling in groups). Economies of scale are available to operators with the use of larger capacity boats with the only limitation being maneuverability. The average ticket price can be lowered using larger boats to provide an entry barrier to other competitors with smaller boats of similar age and standard also offering the scheduled coffee, luncheon and dinner cruises.

There are approximately 9 operators in this segment. These operators operate from fixed wharf “back of house” bases and require reliable access to passenger pick up/put down facilities centrally located in close proximity to Circular Quay or other major tourist destinations.

b) The second major market segment is the unscheduled charter with predominantly domestic and some tourist passengers. These passengers are generally domestic passengers celebrating a special event, tourists traveling outside a tour group, corporate entertainment, novelty charters including a floor show, educational tours involving school children etc. This segment is served by a diverse array of boats in terms of passenger capacity and waterline length. There are approximately 117 operators in this market segment.

The corporate charter sub segment enjoys the least amount of price competition and is serviced by the newest and more stylish boats.

The domestic special event charter sub segment is more price competitive and typically operates with older style and larger boats. The multiple boat operators in this segment operate from fixed wharf bases with back of house space. The single boat operators use base facilities (generally floating wharves at marinas) without back of house space, or operate from moorings and home offices and stores. All require access to public wharves for pick up/put down of clients.
c) The third market segment is unscheduled sail charters. There are approximately 15 operators on Sydney Harbour. These operations are generally require berths and limited office space which is often sublet at marinas. The primary markets for these operations are mainly domestic with limited tourists clientele. Price competition is limited.

d) The fourth market segment is the recreational fishing charter. These operators have similar base operations to sailing charter operators. There are approximately 10 dedicated fishing charter operators on Sydney Harbour and these businesses usually require larger vessels to go offshore and generally have passenger capacities between 20-50 persons.

e) The fifth market segment in the charter vessel market is the water based taxi service. There are 9 main operators of water taxis on Sydney Harbour. These operators are based in marinas in close proximity to the CBD where main travel routes are frequented.

Table 2 - Industry Structure, Charter Vessel Operators

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>No of Operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled Tourist Charter</td>
<td>9</td>
</tr>
<tr>
<td>Unscheduled Domestic Charter</td>
<td>117</td>
</tr>
<tr>
<td>Unscheduled Sail Charters</td>
<td>15</td>
</tr>
<tr>
<td>Recreational Fishing Charter</td>
<td>10</td>
</tr>
<tr>
<td>Water Taxis</td>
<td>9</td>
</tr>
</tbody>
</table>

2.3.2 Private Transport

Some charter vessel operators offer scheduled transport services in competition with Sydney Ferries. The number of players in this market segment are limited to two operators, the Hegarty and Rocket Ferry services. These boats are generally older vessels with 100-200 passenger capacity, are an adjunct to charter vessel operations and operate shuttle services and routes not profitable to Sydney Ferries.

2.3.3 Marinas

Most marinas in Sydney Harbour have evolved from small boat sheds. They were mainly involved in repairs to pleasure and commercial craft. The water in front of these “boat sheds” has been utilized by addition of fixed berths, moorings and more recently floating berths. The “boat shed” has had office space, retail and showroom space as well as additional car parking and other facilities added over time. A marina has become a bundle of businesses assembled to provide a quality boating experience to the public with convenience its major selling benefit, in much the same way as a shopping center operates today.
In some instances, the location suited the original use but the location is now incompatible with the expanded or proposed use. Local councils have regulated inappropriate use of foreshore land with regard to marinas. Most marina operators admit that there are very few if any locations in Sydney suitable for a new marina. Again, a comparable can be drawn with regional shopping centres.

The industry structure is therefore dictated by the supply of land and the original location of the old boat sheds. There are approximately 22 marinas in Sydney Harbour, excluding marinas associated with the power boat and yacht clubs which are dealt with later in this report.

The major expansion in water space use at marinas has been in the construction of floating berths. Their popularity is due to the convenience of floating berths i.e. ease of access and reduced wear and tear on boats. In many locations, expansion of water space has not been permitted by Council or the Waterways Authority. In general, those marinas that have grown with the introduction of pontoons and are generally those marinas are in excess of 50 berths. Those that have not been permitted to grow are generally less than 50 berths. We have chosen this parameter to segment the marina market. Our research indicates that there are approximately 3 marinas exceeding 50 berths and 19 marinas with less than 50 berths.

It is noted that the Environmental Planning and Assessment Act 1979 defines marinas in excess of 30 berths as designated developments. The industry uses the 50 berth mark as its arbitrary definition of small and large marinas. This report adopts the industry view.

A marina business comprises mooring facilities (swing mooring, fixed and floating berths), marine repairs (wet and dry maintenance), retailing (including ship chandler, food outlets and pleasure craft showrooms), fuel, pump out, and tender services.

The ownership of large marinas is becoming concentrated in the hands of a few players. D’Albora controls two large marinas at The Spit and Rushcutters Bay. There are other examples of multiple ownership in the smaller marinas. The industry structure would on first impression indicate limited competition and little price competition due to the importance of location of marina facilities to the pleasure boat owners. However, the depth of demand for marina facilities is price sensitive and it is limited due to the presence of the Waterways Authority as a competitor. Its practice of granting licences direct to the private boat owner at lower prices than a marina operator can offer swing moorings caps the marina swing mooring price and impacts on the relative pricing of fixed and floating berths.

2.3.4 Marine Repairs

There are approximately 69 commercial marine repair operations located in approximately 24 different boat sheds (excluding marinas and yacht clubs) in Sydney Harbour. These marine repair businesses provide a range of services and trades including slipping, painting, shipwright, motor mechanic, electrician, rigging, etc.

The marine repairs market can be segmented by the dry maintenance requirements (i.e. maintenance completed out of the water) of different waterline and beam characteristics of vessels on Sydney Harbour.
The commercial vessels such as punts, tugs etc. over 150 tonnes have beam and waterline characteristics that require large cradles and long slip ways or dry dock facilities necessitating significant foreshore land and waterway area.

The large pleasure vessels and smaller commercial vessels (e.g. charter vessels), with less beam and waterline length require smaller cradles and slip way capacity.

The less than 70 tonnes category is characterised by beams of less than 5 metres and waterline lengths of generally less than 20 metres. This segment services the pleasure craft on Sydney Harbour. Within this category, there are two methods of lifting and storing boats, the slip way/cradle and the travel lift/hard stand, the latter being more capital intensive and more efficient.

The number of operators in the 150 tonnes plus category is limited to two and the extent of price competition would appear to be minimal. The number of vessels on Sydney Harbour exceeding 150 tonnes is approximately 50. The involvement of the Australian Defence Industries in this segment (Garden Island) with its short term pricing policies tends to regulate pricing of dry maintenance in this segment such that monopoly profits are unobtainable.

Note that Sydney Ferries operate a dry dock facility at Mort Bay which has a capacity in excess of 200 tonnes. This facility is fully utilized maintaining Sydney Ferries vessels (with the exception of the Manly Ferry class). With very few exceptions, it does not service the commercial market.

Price competition in the less than 150 tonnes segment and more than 70 tonnes segment is competitive. There are 5 operators in this segment.

At the top end of the less than 70 tonnes segment is the large pleasure vessels and maxi yachts. Some of these vessels are not suitable to be lifted using a slip/cradle and can only be lifted using a travel lift. The maxi yachts really have one option for dry maintenance in Sydney Harbour and that is the North Sydney Marine Centre. Therefore this segment is further segmented and in some areas there is a distinct lack of competition within Sydney Harbour.

The industry structure is summarized in Table 3.

Table 3 - Industry Structure, Marine Repairers, Sydney Harbour

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>No of Operators</th>
<th>Method Of Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 150 tonnes</td>
<td>2</td>
<td>Slip/Cradle, Dry Dock</td>
</tr>
<tr>
<td>&lt; 150 tonnes and &gt; 70 tonnes</td>
<td>5</td>
<td>Slip/Cradle</td>
</tr>
<tr>
<td>&lt; 70 tonnes</td>
<td>60</td>
<td>Slip/Cradle or Travel Lift/Hard Stand</td>
</tr>
</tbody>
</table>
2.3.5 Marine Contractors

There are 4 large marine contractors with marine based plant on Sydney Harbour and approximately 19 smaller specialist marine contractors with marine based plant, predominantly servicing the Sydney Harbour market. There are additionally 7 marine based contractors providing fuel and pump out services to the commercial and pleasure craft markets.

Large Marine Contractors

The large marine contractors design and construct or maintain marine structures. Marine contractors are mobile and marine projects can attract builders domiciled outside Sydney Harbour and without barged based plant. The marine contractors with bases in Sydney Harbour have a high percentage of maintenance work which requires quick response times and plant on barges located within the harbour. Control of harbour foreshore space for base operations therefore gives an operator a competitive edge in tendering for maintenance works on Sydney Harbour. The large marine contractors control approximately 60% of the work on Sydney Harbour.

The two largest marine contractors on Sydney Harbour are Waterways Constructions and Australian Wharf and Bridge, both located at Rozelle Bay.

Specialist Marine Contractors

These are specialist contractors supporting marine builders. They are typically suppliers of barges for rent for materials transport, plant rental such as craneage, tugs to propel non self driven plant barges, mooring contractors, piling contractors etc.

Marine Based Ancillary Services

These are barge delivered fuel and sullage pump out operations that operate on Sydney Harbour and have base facilities on the harbour foreshores.

Table 4 - Industry Structure, Marine Contractors, Sydney Harbour

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>No of Operators</th>
<th>Main Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Marine Contractors</td>
<td>4</td>
<td>General Maintenance</td>
</tr>
<tr>
<td>Specialist Marine Contractors</td>
<td>19</td>
<td>Piling, Moorings etc.</td>
</tr>
<tr>
<td>Marine Ancillary Services</td>
<td>7</td>
<td>Fuel, Sullage etc.</td>
</tr>
</tbody>
</table>

2.3.6 Recreational Clubs

There are three main categories of recreational clubs in Sydney. These are yacht clubs (3), power boat clubs (1), and other clubs (21) such as dinghy sailing, power and rowing clubs. The 3 yacht clubs, and 1 power boat club have marinas. There are 46 other clubs around
Sydney Harbour excluding 10 University and secondary schools rowing sheds, i.e. 56 in total. Yacht clubs and power boat clubs offer similar services to marinas i.e. mooring, maintenance, fuel, storage etc.

**Yacht Clubs**

Yacht clubs differ from power boat clubs in the area of dry storage of craft. Yacht clubs generally offer one design yacht racing and these yachts are generally stored on the “hard” in cradles and launched via crane. The problem is that with insufficient hard stand space, the alternative is for a one design yacht owner to store the boat in the local streets. Councils do not permit owners to store one design yachts on trailers in the street and many are fined. There is considerable demand for dry storage facilities for one class yachts.

The Olympics will also require a significant one design yacht hard stand area and there is a proposal before State Government for a new facility to address this requirement.

**Power Boat Clubs**

Except for small craft, most motor pleasure craft are moored on swing moorings or at marinas. Small craft are mainly trailer launched and stored at home away from foreshore land. Some are stored in vertically stacked dry storage e.g. Akuna Bay Anchorage, a trend that could increase if overseas experience is any guide to the future.

**Other Clubs**

These clubs require boat storage, rigging area and pontoon launch facilities.

### 2.3.7 Fishing Industry

The fishing industry in Sydney Harbour comprises approximately 6 seasonal prawn trawlers based at the Sydney Fish markets at Blackwall Bay, and a further 10 boats located on moorings throughout Sydney Harbour; approximately 18 Sydney based offshore fishing trawlers with 12 located at the Sydney Fish Markets and the balance located at Piers 7 and 9, Pyrmont. The itinerant fishing fleet which comprises up to 20 boats, that fish up and down the coast and generally average a one to two week stay in Sydney Harbour between 5-10 times per year, depending upon fishing conditions. These vessels raft up to other fishing vessels at the Fish Markets or failing this, at any other suitable location.

### 2.4 CURRENT WATER SPACE USAGE

The Waterways Authority have supplied information detailing lease particulars for water space in Sydney Harbour. These have been analyzed to provide data on the area of water leased by each market segment. This data excludes swing mooring licences and water space controlled by City West Development Corporation and the Darling Harbour Authority.

This data is a reasonable guide to activity levels on Sydney Harbour by marine based industries. However, it is not a complete guide to land area used. Land area data is not readily available and requires collation of data from a number of sources such as local councils. This is
beyond the scope of this report. However, leased water space is a broad guide to land usage
by user category. Please refer to figure 1.

The following comments are made:

a) Approximately 50% of water space leased on Sydney Harbour is used by pleasure craft
and recreational clubs.

b) Land areas for marinas will be significantly less that the water space leased. Please see
3.3.2 for additional comments.

c) The space indicated for charter vessel operators is water space controlled by operators that
own the land on which their base facilities are located. Charter Vessel operators use space
at marinas and at the various wharves controlled by the Darling Harbour Authority and
City West Development Corporation. The water area used by charter vessels is therefore
understated in Figure 1. Please see 3.3.1 for additional comments.

d) The Defence Forces control a significant proportion of the water space leased. This space
is located at central locations around Sydney Harbour.

e) Industrial uses are generally located towards Homebush.

f) Marine contractors and marine repairers use a larger proportion of land than water. Land
requirements is approximately 3 times the water area required. Please see 3.3.4 for
additional comments.

g) Private transport includes various wharves used by Sydney Ferries. Government includes
water space used by various government departments including Luna Park, Admiralty
House, RTA etc.

h) Water area used by the Defence Forces relates to Navy and Australian Defence Industries
facilities around Sydney Harbour.

i) Other includes Boy Scouting, Girl Guides, floating restaurants, theaters, punts, etc.
FIGURE 1 - LEASED WATER SPACE BY USER GROUP
SYDNEY HARBOUR

Source: Waterways Authority
3.0 SURVEY OF STAKEHOLDERS

As part of this report, we have surveyed a representative sample of the various stakeholders involved in the use of foreshore land in Sydney Harbour.

3.1 SCOPE OF INTERVIEWS

The stakeholders interviewed on a face to face basis were as follows:

Table 5 - Schedule of Operators Interviewed

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Market Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Charter Vessel Operators</strong></td>
<td></td>
</tr>
<tr>
<td>Rosman</td>
<td>Unscheduled Domestic including Educational Charters</td>
</tr>
<tr>
<td>Captain Cook</td>
<td>Scheduled Tourist Charters</td>
</tr>
<tr>
<td>Sail Venture</td>
<td>Charters</td>
</tr>
<tr>
<td>Bounty Cruisers</td>
<td>Scheduled Tourist and Unscheduled Domestic Charters</td>
</tr>
<tr>
<td>Matilda Cruisers</td>
<td>Scheduled and Unscheduled Tourist Charters</td>
</tr>
<tr>
<td>Blue Line</td>
<td>Scheduled Tourist Charters</td>
</tr>
<tr>
<td>Vagabond</td>
<td>Scheduled Tourist Charters</td>
</tr>
<tr>
<td>Flagship</td>
<td>Scheduled Tourist and Unscheduled Domestic Charters</td>
</tr>
<tr>
<td>Elite Charters</td>
<td>Unscheduled Corporate Charters</td>
</tr>
<tr>
<td>Sydney Water Taxis</td>
<td>Unscheduled Domestic including Corporate Charters</td>
</tr>
<tr>
<td></td>
<td>Unscheduled Domestic</td>
</tr>
<tr>
<td><strong>Marinas</strong></td>
<td></td>
</tr>
<tr>
<td>D’Albora (The Spit and Rushcutters Bay)</td>
<td>Greater than 50 Berths</td>
</tr>
<tr>
<td>Clontarf</td>
<td>Less than 50 Berths</td>
</tr>
<tr>
<td>Balmain</td>
<td>Less than 50 berths</td>
</tr>
<tr>
<td>Elizabeth Bay</td>
<td>Less than 50 berths</td>
</tr>
<tr>
<td>Joel T</td>
<td>Less than 50 berths</td>
</tr>
<tr>
<td><strong>Marine Repairers</strong></td>
<td></td>
</tr>
<tr>
<td>Stannards (North Sydney Marine Centre)</td>
<td>Less than 150 tonnes</td>
</tr>
<tr>
<td>Woodleys (Berrys Bay)</td>
<td>Greater than 150 tonnes</td>
</tr>
<tr>
<td>River Quays</td>
<td>Less than 70 tonnes</td>
</tr>
<tr>
<td>Australian Defence Industries</td>
<td>Greater than 150 tonnes</td>
</tr>
</tbody>
</table>
Table 5 (Cont) - Schedule of Operators Interviewed

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Market Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marine Contractors</strong></td>
<td></td>
</tr>
<tr>
<td>Waterway Constructions (Rozelle Bay)</td>
<td>Main Marine Contractor</td>
</tr>
<tr>
<td>Polaris Marine (Rozelle Bay)</td>
<td>Specialist Marine Contractor/Ancillary Services</td>
</tr>
<tr>
<td>Australian Wharf and Bridge (Rozelle Bay)</td>
<td>Main Marine Contractor</td>
</tr>
<tr>
<td>Arrow Diving (Pyrmont)</td>
<td>Specialist Marine Contractor</td>
</tr>
<tr>
<td>Ability Barge</td>
<td>Marine Ancillary Services</td>
</tr>
<tr>
<td><strong>Recreational Clubs</strong></td>
<td></td>
</tr>
<tr>
<td>Royal Sydney Yacht Squadron</td>
<td>Yacht Club with marina</td>
</tr>
<tr>
<td>Cruising Yacht Club</td>
<td></td>
</tr>
<tr>
<td><strong>Industry Associations</strong></td>
<td></td>
</tr>
<tr>
<td>Marina Association</td>
<td></td>
</tr>
<tr>
<td>Australian Power Boat Association</td>
<td></td>
</tr>
<tr>
<td>Charter Vessel Operators Association</td>
<td></td>
</tr>
<tr>
<td><strong>Government &amp; Authorities</strong></td>
<td></td>
</tr>
<tr>
<td>Water Police</td>
<td></td>
</tr>
<tr>
<td>Customs</td>
<td></td>
</tr>
<tr>
<td>Sydney Ferries</td>
<td></td>
</tr>
<tr>
<td>Environmental Protection Authority</td>
<td></td>
</tr>
<tr>
<td>North Sydney Council</td>
<td></td>
</tr>
<tr>
<td>Department of Defence</td>
<td></td>
</tr>
<tr>
<td>North Sydney Council</td>
<td>Property Disposal Unit</td>
</tr>
<tr>
<td><strong>Fishing</strong></td>
<td></td>
</tr>
<tr>
<td>Sydney Fish Markets</td>
<td></td>
</tr>
<tr>
<td>George Christophrites</td>
<td>Boat owner</td>
</tr>
<tr>
<td>Dominic Bagnato et al</td>
<td></td>
</tr>
<tr>
<td>Department of Fisheries</td>
<td>Boat owner</td>
</tr>
<tr>
<td><strong>Museums</strong></td>
<td></td>
</tr>
<tr>
<td>Australian Maritime Museum</td>
<td></td>
</tr>
<tr>
<td>Sydney Maritime Museum</td>
<td></td>
</tr>
</tbody>
</table>

In all a total of 42 interviews were completed with the principals or senior management of each operator.
3.2 OBJECTIVES OF INTERVIEWS

The objectives of the interviews were to obtain direct responses from operators in a period of three weeks on a range of issues relating to current and future demand for foreshore land. The important issues were as follows:

Current Land Use

The survey was designed to provide typical land and water area requirements for each type of user. Each user's operation was broken down into the type of facility used e.g. office area, hard stand etc. to obtain "rules of thumb" for the average charter vessel operator, marine repair facility etc. During each interview, the degree of utilization of space was determined.

Future Land Use

The survey was also designed to obtain data on future land and water use expectations for each operator based upon anticipated growth or decline in each operator's primary markets. The reason for the growth/decline was sought.

Land and Water Tenure

Information was sought on the type and length of tenure enjoyed by the operator, whether the tenure was threatened and whether any space was subleased.

Demand for Public Wharf Facilities

The objective of these questions was to determine which are the most frequently used public wharves used by charter vessels, whether access is difficult, what form of congestion occurs and whether the current methods used by authorities to regulate access is working satisfactorily. Information was also sourced to determine if public wharves were being used for purposes other than pick up and put down.

Demand for Mooring Facilities

The term mooring is used as a generic one in this report and includes fixed berths, floating berths, swing and fore/aft moorings. One objective was to gain some indication of vacancy rates for the different types of moorings and to determine qualitatively, the relative depth of market demand for each type. Another objective was to determine which charter vessel operators used floating and swing mooring facilities. Finally, an indication as to what type of mooring space can be readily let if expansion was achievable.

Demand for Ancillary Services

Ancillary services includes fuel, sullage, cleaning, wet and dry maintenance, and waste removal. The objective was to determine the most common methods of sourcing each service and the difficulties encountered in doing so. Of particular interest was the sourcing of maintenance by different operators to shed light on the workings of the marine repairs industry.
Business Growth Prospects

The objective was to determine the market forces driving future expectations regarding growth or decline of business. Of particular interest was the impact of regulatory bodies, work practice re-engineering and new technology. It became evident that a good understanding of these issues was required in order to comment on future demand for foreshore land.

Monopolies

The actions of regulatory bodies, in particular local councils and the EPA could result in the consolidation of ownership of businesses. This may inadvertently create the opportunity for an operator to monopolize a market segment or sub segment.

3.3 INTERVIEW FINDINGS

The findings from the interviews are as follows:

3.3.1 Charter Vessel Operators

Scheduled Tourist Segment

Charter vessel operators in the scheduled tourist market segment operating larger boats employ on average approximately 8-9 persons per boat. These people are involved in the preparation of the boat for the charter, including preparation catering, manning of the boat during the cruise and final cleaning and berthing of the boat.

In this segment, the typical number of boats operated is 4-6 and are generally 15-30 metres in length with maximum passenger capacity of 150 - 400 persons.

Base Facilities

Typical office space required is approximately 100 sqm of floor area; storage area is approximately 50-100 sqm with another 50-100 sqm of floor area required for staff facilities and preparation catering kitchen. Each boat on average generates approximately 6 car spaces. These may be located within the compound or on street parking.

In summary, the average scheduled tourist charter boat operator requires approximately 250-300 sqm of office, store, cool room, preparation kitchen, staff facilities etc. and 24 car spaces.

Wharf Space

Each boat requires approximately 30-40 m of berth space. Generally this equates to 120-240 lineal metres of wharf or 1,200-2,400 sqm of hard stand area adjacent to the berths per operator. If the berths are marina type berths then the hard stand area may be reduced depending upon the configuration of the berths.
Tenure

In general, operators lease office, storage and berth space. Tenure is short and generally less than 12 months to lease expiry. Difficulties are being experienced by operators in negotiation of tenure with the Darling Harbour Authority and City West Development Corporation who control various wharves between Darling Harbour and Millers Point.

Berth rentals are in the range of $500-$3,000 per month per berth and office etc. rentals are in the order of $1,000-3,000 per month. We met some hesitancy in provision of this information and some operators offered incorrect figures.

Expansion Plans

The majority of operators stated that they did not intend to expand operations through additional boats. Only those operators that have been recently purchased by hotel and other offshore interests indicated expansion plans. We interpreted these expansion plans as due to the greater availability of capital from new owners. These operators indicated that they were seriously searching for a new location for their base operations. One operator indicated that it intended to double the size of its fleet. Most operators indicated that the primary reason for not expanding their operations was the uncertainty relating to their base operations and berth space.

All operators interviewed stated that demand from Asian tourists for scheduled services (the primary source of inbound tourists) had contracted over the last twelve months. One operator indicated that this contraction was in the order of 18% over the last twelve months. Many operators stated that domestic tourists using scheduled charters had grown and compensated in part for the contraction in inbound tourist numbers.

We were advised by the Charter Boat Industry Association that approximately 50% of inbound tourists take a scheduled charter.

We conclude that the primary market is currently fairly static in size. However, we believe that there is potential for the scheduled charter market to expand through professional marketing of scheduled charters via the hotel and travel agent booking networks. We do not believe that this opportunity has been exploited to date. We note that the purchase of Matilda Cruises, Blue Line and Vagabond by offshore purchasers and a hotel group may improve the market penetration of the scheduled charter into the tourists' other sightseeing options in the manner stated above. The ultimate growth of the scheduled charter market will be dependent upon the professionalism of its promotion, its efficiency and price competitiveness compared to other substitutes. This is beyond the scope of this report.

The current expansion plans of these charter operators reflects a strategy of achieving greater economies of scale through larger boats, the lowering of ticket prices, and buying of greater market share and possibly increasing the overall market size.
Pick Up/Put Down

All operators use public wharves for pick up and put down of passengers. The most commonly used wharves are Circular Quay, Man of War steps, various Darling Harbour wharves.

All operators indicated difficulty in access to the above stated wharves at peak times, i.e. around midday and seven o'clock and immediately prior to Christmas. At other times, access did not appear to be a problem for these operators. The regulation of use by way of licence of the various Circular Quay wharves appears to work for those operators having a licence.

The operators without access to Circular Quay were very quick to suggest that Sydney Ferries should not lay over ferries over night at Circular Quay and should permit additional charter vessel operators to use Circular Quay. Alternative locations for Sydney Ferries to lay over vessels was of concern.

All operators indicated that they would like to see additional wharf space be made available for pick up and put down at peak times.

Coach access is most desirable at set down/pick up points. Shelter, ticketing facilities, and seating are desirable in set down/pick up areas.

There appears no congestion at other public wharves remote to the CBD.

We concluded from these discussions that operators regard the location of pick up and put down of passengers as the "reception area" for their businesses. Ease of access for tourists, i.e. minimal delays in accessing the charter vessel, including transport to the pick up point, is critical in allowing the passenger to fully enjoy the cruise experience. Operators feel they can control the on board experience, but have on occasions very little control of the pick up and put down of passengers.

Ease of access is seen by operators as an important factor in the growth of their businesses. Many operators indicated that delays during pick up of passengers caused damage to their businesses and was the cause of most complaints.

No operators have difficulty accessing fuel, sewerage pump out, and waste removal services. The barge fuel operators appear to be servicing the charter vessel operators quite efficiently.

Ancillary Services

Dry maintenance is of concern to operators. Many operators take their vessels to Newcastle, Port Stephens, Port Macquarie and Wollongong because it is cheaper to slip and repair in these locations than in Sydney Harbour. For the operators running 30 metre vessels, Woodley's yard and Garden Island are the only yards in Sydney capable of handling these boats. The ability to use their own labour or contractors is a problem in Sydney and reflects a shortage of competition in the marine repairs industry in this segment.

Most operators are not complementary regarding the EPA and Waterways in relation to the retro-fitting of sullage tanks. Operators in predominantly residential areas are having
difficulties with local councils. For example, North Sydney Council has closed the car track to Captain Cook Cruises’ Neutral Bay base as a result of resident complaints regarding noise and cars/trucks traversing through the Andersen Park. All supplies etc. must now be transferred into their base by hand held trolley.

 Unscheduled Tourist and Domestic Market Segment

This market segment can be broken up into the following sub segments: Corporate, Special Events, Educational, and Novelty market segments. Corporate charters are companies chartering vessels to entertain clients, staff or visiting executives. Special Events charters are domestic and local domestic clients chartering boats for weddings, birthdays etc. Educational charters are pitched at schools and special interest groups. Novelty charters are boats offering dinner and entertainment such as “Studs Afloat”.

There is some overlap by operators in these sub segments. The overlaps generally occur by operators servicing both the Corporate and the Special Events markets or the Special Events, Educational and Novelty markets. The determinant is boat quality with the operators operating older boats servicing the Special Events, Educational and Novelty sub segments. Price sensitivity by passengers in these categories dictates lower ticket prices and therefore older boats with lower capital value.

 Corporate

The Corporate segment typically operates with 1-5 vessels, such vessels being relatively modern in comparison to other sub segments.

The larger corporate charter vessel operators such as Flagship Charters do not own all the vessels operated i.e. they lease a proportion of their fleet. These operators have strong marketing skills and act as agents for other operators in this market segment.

The larger operators operate from wharf (or marina) base facilities similar to the scheduled tourist segment and require good access to public wharves for pick up and set down of passengers. Space requirements are similar with the exception that catering is “out sourced” and the scope of cold storage space and kitchen facilities is reduced. The area of facilities required is typically less, and in aggregate is in the order of 200 sqm.

Of the multiple boat corporate charter operators interviewed, there is significant variation in the tenure over their base facilities. The operator interviewed whose base facilities are located at a wharf controlled by City West complained of uncertainty of tenure and is a monthly tenant. Another operator with base facilities located at Westport had recently been ejected from Birkenhead Point and had negotiated a 5+5 lease for base facilities, but expressed concern that this was a desperation move and that the limited berth space available would limit the growth of the business.

Typically, boat sizes are 10-20 metres and berths of approximately 20-30 metres in length each are required.
Management excepted, staffing of boats is on a casual labour basis and multiple boat operators employ between 4 and 25 staff depending upon activity. Car parking requirements are by operator in the order of 3-20 car spaces depending upon activity level and proximity of the base to public transport.

Operations with 1-2 boats are very likely to lease a small office at a marina and use marina berth space or operate from a home office and use a swing mooring at a marina.

Multiple boat operators operate on a similar basis as the scheduled tourist segment and separate the pick up and set down location from this base facility. They experience similar problems with public wharf access as do the scheduled tourist operators, but have more flexibility in scheduling times.

Marina based operators on some occasions use their base for pick up and put down of passengers.

All interviewees stated that the corporate charter market segment has undergone strong growth over the last two years. Reasons stated include recovery in corporate profits, increased foreign ownership of companies leading to the harbour cruises for visiting executives, Sydney as a venue has become more popular as a result of the Olympics etc.

Interviewees indicated a future growth rate of 5-10% pa for the corporate sub segment subject to international events such as a major recession, or Gulf War, which overnight eliminated US company clients from the market.

Interviewees indicated that the quality of the boat was a significant competitive parameter in the segment, and that charter rates (price) are a direct function of boat quality.

Special Events, Novelty and Educational

The Special Events sub segment is primarily local domestic demand. Operational methods are similar to the Corporate sub segment except that the boats are generally older.

Typical base facilities for these operators comprise approximately 150 sqm of office and low clearance storage space. Catering is out-sourced.

Up to 5 boats serve this market and are typically 15-20 metres in length, with a maximum passenger capacity of between 150 to 300 persons. Berths are generally fixed wharf, with very few operators based at marinas due to cost.

Tenure is by way of lease, and there is a great deal of variation in the term of the tenure in these sub segments. One interviewee located at North Sydney Marine Centre had recently negotiated a 5 year lease term. Others are on monthly tenancies.

Price competition and inability of customers such as schools to pay higher ticket prices discourages investment in these businesses. As a result, base facilities are typically demountable sheds on subleased space in marine repair yards with fixed berths in marinas or government owned wharves etc.
Access to public wharves for pick up and set down of passengers includes major CBD
wharves, but a higher proportion of non CBD wharves are used. One respondent indicated
that they used public wharves for pick up or set down of equipment and maintenance supplies.
Access to public wharves for these operators was in general considered relatively easy with
peak times occasionally a problem. There was little indication of additional access being
required to the CBD wharves.

Interviewees had no plans to expand their facilities and the outlook for the future was
generally limited growth in turnover in the 5% pa range.

**Security of Tenure of Base Facilities for all Segments**

53 operators have base facilities located at wharves or marinas.

Of the scheduled tourist operators, base facilities are leased with the exception of Captain
Cook Cruises which owns its land. Captain Cook lease water space and have an unexpired
lease term of 13 years.

Lease tenures among the scheduled tourist operators are between 1-12 months for the
majority of the operators. These operators have bases at fixed berths with adjacent
office/storage space. City West and DHA leasing policies are a problem for this segment.

Unscheduled Domestic operators fare better. These operators have base facilities less central to
the CBD and may be located at fixed and floating berths. Lease tenures range from 1 month to
5 years.

The Corporate segment appear to have the longest lease terms. Flagship charters lease wharf
space from City West and hold over as a monthly tenant. Elite Charters have negotiated a five
year lease at Westport. Rosman Ferries have negotiated a 5 year lease at the North Sydney
Marine Centre.

Five of the eight operators interviewed indicated that the tenure of leased base facilities are a
major concern.

**Industry Association**

The Charter Vessel Operators Association stressed the importance of creating an environment
conducive to the efficient operation of the industry.

From interview data, an operation cycle chart has been prepared (Figure 2) outlining the
typical operational cycles of charter boat operations.

The key issues in the cost structure of the industry are the minimization of labour, vessel
running costs and maintenance time (in particular dry maintenance). The key areas of concern
are the time taken to travel to the pick up and set down locations, the time taken to access fuel
and pump out facilities (ancillary services), the time taken to attend to wet maintenance and
the time taken to access dry maintenance facilities. This is non income earning time. The ratio
FIGURE 2 - TYPICAL CHARTER VESSEL OPERATION CYCLE

(Note: ................. Indicates Low Frequency Event)
of income earning time to total operational time for each boat i.e. a utilization rate of each boat is an important statistic.

The passengers in the scheduled tourist segment are predominately located in the CBD and fringe CBD hotels in Sydney. As a result, preferred pick up and put down locations are close to the CBD i.e. Man O' War Steps, Circular Quay wharves, Campbell's Cove and Cockle Bay.

Passengers in the Unscheduled Domestic segment are not concentrated in the CBD and preferred pick up and set down locations are more evenly spread around Sydney Harbour.

The preferred location for base facilities for the scheduled tourist segment operators is also close to the CBD. The unscheduled domestic segment operators are seeking base facilities that are central to Sydney Harbour.

Minimal distance between fuel, pump out and maintenance facilities is also required to minimize non income earning operational boat time. This means that these facilities should be ideally located adjacent to the base facilities i.e. close to the CBD.

Charter Vessel base facilities are sometimes noisy and generate traffic, often at night. Base locations close to residential areas are incompatible. Local councils are cognizant of this problem and the politics of the situation often results in the residents winning the political battle. There were many examples given by interviewees of local councils adopting an aggressive attitude to charter vessel operators.

The Charter Boat Operators Association are seeking government assistance in the creation of an integrated charter boat base in Sydney adjacent to the CBD. Rozelle Bay has been identified as their preferred location.

Conclusion

The Charter Vessel industry has developed from humble origins. In the past, it was a secondary source of income for vessels in a maritime port. The market has grown, boats have become dedicated to charter operations. International tourism has flourished and competition in the industry has created market niches as competitors have sought to differentiate their service to a range of customers’ needs.

The continued growth of tourism and the approach of the 2000 Olympics is attracting more professional management and capital into the industry. The scheduled tourist segment is about to undergo a significant injection of capital in the form of additional and larger boats and perhaps investment into base facilities. It is also about to receive the benefit of modern professional marketing and general management skills. An impediment to this capital injection is security of tenure of base operations. Any feasibility analysis required for capital expenditure is influenced by security of tenure of base operations. The industry appears incapable of carrying the cost of freehold title land on its balance sheet for base and pick up/put down facilities.

The conclusion from interviews is that there may be good economic arguments for government to promote the charter vessel industry and thus tourism. If so, there is a sound
argument that the stakeholders embark on a coordinated planning initiative to provide long
ure, suitably zoned land for charter boat base use. The location of this land should be
considered with the twin objectives of encouraging a more efficient industry in a location
compatible with residential use.

3.3.2 The Marina Industry

The majority of marinas are on leasehold land. Approximately 10% of marinas in Sydney are
on freehold land.

Facilities

The water area used by marinas varies extensively. Waterways records indicate that the large
marinas (greater than 50 berths) use between 10,000 and 30,000 sqm of water space. The
smaller marinas (less than 50 berths) use between 500 sqm and 5,000 sqm.

Land areas vary from 200 sqm for smaller marinas up to approximately 1000 sqm or more for
larger marinas. As a guide, for small marinas, water area (excluding swing moorings) is
approximately 2.75 times the land area required. For large marinas, the water area required
(excluding swing moorings) is up to 40 times the land area.

The larger marinas use approximately 1,500 sqm of floor space comprising office, low
clearance work shop space, retail, showroom, storage and client facilities. The smaller marinas
use approximately 500 sqm for office, low clearance work shop space, storage and client
facilities.

Of the marina operators interviewed, lease tenures over land and water were a minimum of 5
years and in discussion with the industry association, lease tenures were not considered a
priority issue.

It is concluded that marinas experience few problems with tenure over land or water space.
For example, the Waterways Authority data indicates that average unexpired term over water
space in Sydney Harbour is 10 years. The industry body indicates that less than 10% of marina
operators own their land.

Of the interviewed operators, three owned land, the other two had unexpired land lease terms
of 5 years or more.

Expansion Plans

All operators stated that any future expansion plans involved expansion of berth space i.e.
floating berths, but were unlikely to proceed due to council opposition to their proposals. The
traffic generated by marinas and the car parking space required are major issues.

From discussion it was concluded that demand for pontoon berth accommodation was strong
and that additional pontoon berths could be let quickly. The depth of the overall market for
berth space i.e. the extent of unsatisfied demand was uncertain. Each operator questioned,
talked about modernization of berth facilities involving reduction of fixed berths and an increase in floating berths. It was concluded that the plans for modernization of berth facilities were more about increasing market share than increasing the overall size of the market. However, it was noted that all operators spoke of loss of customers to Pittwater, Brooklyn and even Port Stephens. This leakage of demand could mean that if modernization did occur with an overall increase in berth numbers in Sydney Harbour, the overall size of the market may increase.

Private moorings are an option to marina berths, albeit not as convenient. The structure of the industry, the shortage of supply and the location of marinas around Sydney Harbour suggests a lack of price competition. However, the involvement of the Waterways Authority in the licensing of water space for private swing moorings and to a lesser degree, private residential marina berths, regulates the marina berth market and places a cap on the price for a marina berth. Thus, the Waterways Authority, through its monopoly in the swing mooring market, indirectly controls the profitability of marina businesses.

The smaller marinas indicated that business turnover over the last few years was static, and that profits have been declining. The reason put forward by the industry association was that the Waterways Authority policies were not allowing pricing of their facilities to provide a reasonable profit level and to cover long-run costs in the industry.

A physical inspection of the smaller marinas appeared to support this argument, and indicated that most facilities are in average to poor condition and that maintenance expenditure, especially on wharf structures, was not being undertaken.

Of the large marina operators surveyed, current vacancy rates on berth space averaged 30%. Similarly, swing mooring vacancy rates for smaller marinas averaged 30%. The depth of demand for both forms of accommodation is therefore limited.

The growth in demand for marina services has been outside Sydney, e.g., Brooklyn and Port Stephens. The reasons given were that these facilities are more modern, clients are prepared to travel north given better roads, the cost of a berth is similar, the waterways relatively uncluttered etc.

All operators indicated that they expected that their marine repair operations would close down in the next ten years. The reason for this observation was that in order to satisfy the requirements of the Environmental Protection Authority regarding control of pollutants, the capital expenditure necessary for compliance could not be supported by the business cash flow. This view was even expressed by the largest operator, D'Albora.

The policies of the Environmental Protection Authority are dealt with in 3.3.3 of this report.

The impact on the marina industry flowing from a closure of repair operations is of interest to this report. Discussions with operators indicated that marine repairs income forms a greater share of total revenue for smaller marinas compared to a larger marina. The price of a floating berth per annum is approximately twice that of a swing mooring. Therefore, larger marinas have a greater proportion of their total revenue tied to berths. If the slip ways of marinas are closed down, then all marinas will lose marine repairs income, including wet maintenance...
income. However, the larger marinas will have more options for alternative uses of the land and water space and will be more able to manage the change. However, all marinas will suffer a loss of berth clients due to the loss of convenience of a remote dry maintenance facility and the smaller marinas are likely to suffer more severe financial problems with the result that a number of marginal operators may be pushed out of the industry.

An alternative use for the slip way space suggested during interviews was the introduction to Sydney Harbour of dry stack storage for boats less than 10 metres. This use is compatible with boat brokerage which requires lifting facilities to survey boats prior to sale. It is evident that large marinas only could make this transition.

A feature of the marina industry is the trend towards concentration of ownership, e.g. D’Albora. Operators indicated that there are economies of scale in the marina berth market, and in the event that the repairs component of marina businesses is closed down, then it is likely to encourage further concentration of ownership in the industry. It is also likely that the marinas with expansion potential will be the first to change hands. The result could be fewer marinas of larger scale.

**Industry Association**

The Industry Association stated that the presence of the Waterways Authority as a competitor was having a major effect on the profitability of marina businesses. The current pricing of private swing mooring space was too low, and as a result most marinas could not obtain a reasonable price for their swing moorings and berths when the cost of providing and maintaining the marina facilities is taken into account.

The Waterway Authority price for a swing mooring space is approximately $340 per annum for a 10 metre vessel and after the licencee’s cost of maintaining the mooring is taken into account, the cost of a private swing mooring amounted to approximately $600 per annum. Swing Moorings at this price become a cost effective substitute for marina swing moorings and berth space. Most marinas are pricing their swing moorings on a break even basis.

We did not receive any details as to the true cost of provision of the marina facilities that back up the marina swing moorings suffice to say that a figure of $864 pa per swing mooring was put forward. It is likely that the situation is not as problematical as stated. However, it appears that the small marinas are not generating the cash flows necessary for their long term viability, as evidenced by the poor physical condition of wharves and other structures.

**Conclusions**

The industry is very much aware of the need to sell convenience to boat owners. We have prepared a typical pleasure craft use cycle from interviews which nomimates the various processes that marina operators can influence to provide a convenient boating experience. Please see Figure 3. These are ease of berthing, quality of berths, ease of access to the berth and boat, ease of preparation of the boat, ease of cleaning and garbage removal, ease of car parking, proximity of dry and wet maintenance and ancillary services and cost. These are critical factors in the buying decision process for the pleasure craft boat owner.
FIGURE 3 - TYPICAL MARINA BASED PLEASURE CRAFT USE CYCLE

(Note: ................ Indicates Low Frequency Event)
It is apparent that there is a demand leakage for marina space and associated business from Sydney. This is largely due to the shortage of suitable land, opposition from councils to expansion and modernization of existing marina facilities and the relative attractiveness of other waterways.

Growth in demand for marina berths is also constrained by the relative comparative cheapness of private swing moorings and the relative ease in obtaining approval for a private residential marina.

It is expected that the implementation of stricter pollution controls on the marina industry will force the closure of smaller marinas in Sydney Harbour, resulting in a reduction of berth numbers.

If marina operators are to inject more capital to re-engineer their operations to provide more efficient use of foreshore land, to comply with more strict pollution controls, and to provide a higher level of convenience to boat owners, then the Waterways Authority may need to coordinate its activities with the industry, especially in the pricing of private swing moorings in order to promote the necessary investment environment.

Nevertheless, there is likely to be a greater concentration of ownership of marinas. Either way, an inevitable consequence will be an increase in the cost of berths to pleasure craft owners.

The shortage of suitable land and water space indicates a need for better use of existing land resources. This suggests that a re-engineering of boat storage practices may be required to meet future increases in boat numbers.

Sydney Harbour has reached saturation point in the allocation of swing mooring space. Fore/aft mooring techniques may provide a more efficient use of water space, but we have been advised during interviews (by people not in the marina industry), that these moorings are unpopular with power boat and yacht owners due to difficulty in access and pick up of the mooring “dolly”.

We have calculated the comparative efficiencies of various methods of boat storage as follows:

a) a swing mooring requires 960 sqm of sea bed space assuming 15 m depth, 10 m boat and a catenary angle of 60 degrees.

b) fore/aft moorings require 325 sqm of seabed space assuming a 10 m boat and gutter and channel dimensions of 6.5 metres and 16.5 metres respectively.

c) a pontoon berth requires 156 sqm of sea bed space assuming a 10 m boat of beam 5 m, and a 12 m channel.

d) a wharf berth (with pile) requires 156 sqm of sea bed space assuming a 10 m boat of beam 5 m and a 12 m channel.

e) a dry stack berth requires an area of 35-50 sqm of hard stand space assuming a 10 m boat of beam 5 m, a three level dry stack structure and access width of 6 m.
The feasibility of the more efficient methods of providing boat berths (e.g. dry stack berths) with the implicit greater level of capital investment is beyond the scope of this report. However, with some 15,000 boats on Sydney Harbour, congestion of waterways by swing moorings and approximately 1,500 marina berths (before the closure of Birkenhead Point), this feasibility work appears urgent to determine the scope for "re-engineering" of this industry.

Car parking for marina clients and employees remains a major problem in any re-engineering of the industry.

3.3.3 Marine Repairers

**Environmental Protection Authority**

Demand for foreshore land by marine repairers cannot be addressed without consideration of the regulatory and economic forces acting on this industry.

Discussions with the Environmental Protection Authority (EPA) indicated that there is currently in progress a review of the processes used in the control of pollution monitoring and licensing. The current proposal is that the local councils take over the licensing process from the Environmental Protection Authority.

The Environmental Protection Authority currently administers the Clean Water Act 1970 which in principle places the burden of proof on the polluter and permits pollution on a licensing basis. The exact nature of the permitted pollution process is spelt out in the licence. The Environmental Protection Authority states that the pollution processes in the marine repairers industry are:

a) Control of waste waters
b) Control of waste products
c) Sanding and particle drift to the water and surrounds
d) Painting and escape of solvent particles into the water and surrounds
e) Noise

The Environmental Protection Authority provide guidelines to local councils for the assessment of development applications and the preparation of environmental impact statements.

The Environmental Protection Authority have set a series of "performance outcomes" for the industry which they plan to implement over the next five years. These performance outcomes are to be implemented as part of the licensing powers under the Act with licences renewed annually. The spokesperson for the Environmental Protection Authority freely admitted that the performance outcomes may put a number of marine repairers out of business.

The "performance outcomes" will necessitate significant process re-engineering of the industry. The main areas are as follows:

a) All dry maintenance will need to be completed above water.
All waste waters will need to be collected and filtered of solid waste. If not contaminated, water can be returned to the harbour, or if contaminated removed to trade waste receptacles or the sewer. This process will necessitate raising the work area onto a concrete hardstand that will not permit waste water or storm water run off into the harbour, but will channel it into waste collection points.

c) All sanding and painting operations will need to be carried out in enclosed locations with mechanical exhaust with filters capable of providing a safe working environment. This will necessitate the construction of high clearance structures.

d) Noise suppression may require some operations to be completed within closed structures or other sound attenuation methods to be employed.

The Environmental Protection Authority talks about "pollution reduction programs". However, our assessment is that in order for these programs to be implemented, marine repairers will need to close down and rebuild their operations at significant capital cost.

A good example of the extent of rebuilding required is the North Sydney Marine Centre. The whole of Stannards yard with the exception of one slip way has been reconstructed into a concrete hard stand and four high clearance structures for cleaning down, painting, and other repair work. This reconstruction was funded by the sale of the adjoining Groom Yard after a deal was struck with North Sydney Council to rezone this land to residential use, thus increasing the residual land value of this property.

Another example is the Patton's yard in Careening Cove. A development application was made to council to convert the yard to a travel lift and hard stand operation with enclosed work areas. The council rejected the development application on the grounds of residential objections and the size of the proposed redevelopment.

It is noted that Captain Cook Cruises and River Quays are attempting the same method of financing construction of new modern facilities.

Physical inspection of the marine repairers yards revealed that the condition of most is poor and that the existing capital improvements are being run down.

It is concluded that conditions exist in this industry for significant change and restructuring as a result of the actions of the Environmental Protection Authority and local councils. As a result, it is expected that over the next five years, many of these businesses will close rather than attempt to comply with revised licence conditions. For those marine repairers having freehold title, the alternative is to obtain residential use zoning and to sell, not an unattractive option.

**Greater than 150 Tonnes**

There are approximately 50 vessels of displacement greater than 150 tonnes on Sydney Harbour.
Sydney has three yards capable of servicing this segment. They are Garden Island (dry dock), Sydney Ferries at Balmain (dry dock) and Woodleys (slipway/cradle). We have been advised that Sydney Ferries are hesitant to accept commercial vessels. The market segment is therefore limited to two operators.

All interviewees indicated that Goat Island could not be operated as a commercial private yard. The reasons given were that the cost of recommissioning the yard would be significant and the cost of importing materials/supplies etc. and transferring staff by water would make it uneconomic and inefficient amongst other stated reasons.

Woodleys indicated that they were losing business to yards outside Sydney, mainly Newcastle, Port Macquarie and Wollongong. Woodleys will not permit outside contractors, and insist upon using their own labour. Woodleys complain that their competition, particularly Garden Island price their services with no regard to the long term costs of maintaining the facilities.

In discussions with a marine contractor, Woodleys charges are in the order of $1,000 per day to slip a vessel over 150 tonnes and that the typical cost to complete repairs is approximately $10,000 plus labour and materials. This compares to the cost of taking a large vessel to Wollongong where slip way charges are $100 per day and towage is approximately $6,000 for the round trip.

Business growth over the last five years at Woodleys yard has been static. Improvements to profitability have been made through productivity improvements in labour practices.

The land at Berry’s Bay leased by Woodleys is underutilized. Woodleys indicated that they are considering conversion to hard stand but added that they would require additional land if this was to occur. Woodleys currently occupy approximately 5,400 sqm of land. We understand from other interviewees that the closure of the Woodleys yard may be imminent and that the land may be leased in part by Captain Cook Cruises.

In order to fully comply with the Clean Water Act, these yards will need to reengineer their business plant. This implicitly means conversion to the hydraulic dry dock and hard stand. It is a modern version of an old technology and involves hydraulic jacking of a concrete platform and cradle, off concrete piles up to a concrete hard stand. This is a significant marine structure with cradle wheel loads requiring concrete slab depths approaching 1 metre. This represents a significant capital investment.

Woodleys advised that the EPA have been involved with their operations and are basically happy that all reasonable measures are being taken by Woodleys to control pollution given the use of slip ways. However, they would not comply with strict EPA guidelines. The comment was made that at the moment, the EPA was unlikely to close the operation down as it is the only active private yard in the market servicing large vessels. However, it was thought to be only a matter of time until the EPA tries to force an upgrade of the operations and at that point Woodleys would most likely close.

Interviewees all indicated that they felt the ADI operation at Garden Island was inefficient and is subsidized by the Government.
Less that 150 tonnes, greater than 70 tonnes

The number of vessels of displacement less than 150 tonnes increases rapidly as displacement decreases. The number of operators servicing this segment increases to approximately five.

Hendersons at Balmain are typical of this market. The market is competitive and services commercial vessels of 20-30 metres in length and timber of vessels of longer water line length. With the exception of the Sydney Ferries facility at Mort Bay, which does not compete in this segment, all facilities are slip way and cradle operations with typically two slips operating. These yards handle a proportion of the charter vessels on Sydney Harbour.

In general, the problems confronting the greater than 150 tonnes segment are the same for these operators and do not warrant repetition.

This segment also appears unstable. The cost of compliance with the Clean Water Act is one factor. The possible introduction of travel lift technology is another. At the current time, there is no travel lift in Sydney Harbour capable of lifting in excess of 70 tonnes. However, it is considered only a matter of time before the technology becomes available to lift larger vessels using this technology. Note that some older craft (e.g. timber) cannot be lifted in a travel lift and have to be lifted in a heavily “chocked” cradle. However, in the event that a large travel lift (up to 100-120 tone capacity) and hard stand yard is built in Sydney Harbour, then there is scope for a more efficient competitor to cause a restructuring of the segment with the exit of marginal businesses.

Less than 70 tonnes

The industry opinion is that within the next 10 years and as a result of the EPA actions, most marine repairers will choose to leave the industry in Sydney Harbour.

Other marine repairers will adopt the travel lift and hard stand method. At present, the commonly accepted optimum size of the travel lift and hard stand operation is one travel lift of 70 tonnes capacity with 5,000 sqm of concrete hard stand. This allows space for approximately 20 boats to be worked on at any one time.

All interviewees stated that for the less than 70 tonnes segment, the slip way and cradle method for dry maintenance has been superseded by the travel lift and hard stand method. The reason stated by interviewees is the ability of management to provide continuity of work for the different trades i.e. to improve the productivity of labour. The method also allows increased productivity for lifting plant. The general consensus amongst interviewees is that economies of scale apply to the industry and that an efficient marine repair facility would require two or three travel lifts and approximately 15,000 sqm of hard stand. Examples of such installations in Fort Lauderdale, USA were given.

There is reasonable cause to expect that the marine repairs industry will undergo significant restructuring over the next ten years. Many yards will close as a result of the actions of the EPA and/or the opening of Sydney’s first “maxi yard”. We are of the view that a “maxi yard” is inevitable as the industry strives to become more efficient.
Security of Tenure for Facilities

From data supplied by the Waterways Authority, of the 24 boat sheds operating on Sydney Harbour, 13 are on annual leases.

Of the operators with more than 12 months unexpired duration of lease term, the average unexpired lease term is 8.4 years. Interviewees indicated unexpired water lease terms of 2-20 years and land lease tenures of 5-11 years. These terms are not representative of the industry. It is clear that there is a great deal of variation in unexpired lease duration.

From interviews, the tenure issue does not appear to be a priority and environmental issues are more pressing.

Conclusions

There are approximately 15,000 moored craft in Sydney Harbour. There are 24 marinas on Sydney Harbour with approximately 1,500 marina berths (including Birkenhead Point) with dry maintenance facilities. There are a further 24 commercial boat sheds and 4 clubs with dry maintenance facilities. There are also more private slipways in Sydney Harbour than commercial.

From discussions with marine repairers, the average period between dry maintenance is nine months. This varies considerably between users eg racing yachts are more frequently hauled out of the water. This implies that the total market demand for dry maintenance is approximately 22,000 operations per annum. It is not known how much of this work is completed by owners on private slip ways, but interviewees say that it is a significant proportion of the total demand (estimate 20%). If EPA requirements prevented the use of private slips for maintenance, then this demand would need to be provided by commercial repair facilities.

A significant proportion of commercial slip ways may close over the next ten years. Private slip ways are likely to be under utilized and may become busier if new facilities are not constructed. However, the industry may respond with the construction of a number of travel lift/hard stand yards subject to the availability of suitable land and planning permission. If land does not become available due to planning constraints, and given that the EPA proceeds and forces performance compliance, then Sydney Harbour will undergo a major crisis in the marine repair industry.

The industry advises that they cannot carry the cost of freehold title given current cash flows. This indicates that Crown land may be required. The capital expenditure required to construct these facilities will necessitate long term tenure for feasibility.

The most efficient operation format for a marine repair operation appears to be a three travel lift configuration. This involves two 35 tonnes and one 70 tonnes capacity travel lifts. The operational cycles of this type of marine facility is outlined in Figure 4. The typical land and water areas required are set out in Table 6 and 7.
### Table 6 - Breakdown of Land Area by Function, Maxi Marine Repair Facility

<table>
<thead>
<tr>
<th>Function/Use</th>
<th>(sqm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard stand for 78 boats bays (65 repair berths)</td>
<td>12,300</td>
</tr>
<tr>
<td>Workshops/Office</td>
<td>5,900</td>
</tr>
<tr>
<td>Car Parking for 150 cars</td>
<td>6,000</td>
</tr>
<tr>
<td>Landscaping/Access Roads etc</td>
<td>8,000</td>
</tr>
<tr>
<td><strong>Total Land Area</strong></td>
<td><strong>say 32,000</strong></td>
</tr>
</tbody>
</table>

### Table 7 - Breakdown of Water Area by Function, Maxi Marine Repair Facility

<table>
<thead>
<tr>
<th>Function/Use</th>
<th>(sqm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 pile berths at 5 m each</td>
<td>4,200</td>
</tr>
<tr>
<td>Cranage Work Areas (2)</td>
<td>300</td>
</tr>
<tr>
<td><strong>Total Water Area</strong></td>
<td><strong>4,500</strong></td>
</tr>
</tbody>
</table>

Other parameters of this type of facility are as follows:

a) Length of water frontage required is approximately 350 m.

b) Average stay is 3 days with 80% occupancy for 65 boat bays.

c) Annual boat throughput assuming a six day working week is approximately 5,400 boats per annum.
FIGURE 4 - TYPICAL MARINE REPAIRER OPERATION CYCLE

(Note: Indicates Low Frequency Event)
On the basis of all marine repair works being carried out in yards of the scale outlined above, it is estimated as a guide that the land area required to service current demand for dry maintenance work at more than 128,000 sqm of land, lineal wharf space of more than 1,400 m and water space at more than 18,000 sqm. This equates to four maxi marine repair yards.

In reality, the industry will not achieve this structure and these efficiencies will not be achieved. It is more likely that a number of smaller yards of less efficiency will be built. The land area required based upon four maxi-yards is therefore a minimum.

There will be a need for all levels of government to co-ordinate its planning processes to identify suitable sites for the restructuring of this industry so that a crisis is avoided.

3.3.4 Marine Contractors

Not all marine contractors are marine based. The operators owning barge based plant require foreshore land. Others rent the barges and keep plant land based. Some keep barge based plant out of Sydney and tender for construction rather than maintenance work. During construction, their plant is stored at the project and is removed from Sydney Harbour on completion. The businesses that carry out maintenance work in Sydney Harbour require barge based plant stored in Sydney Harbour.

There are approximately eleven operators with barge based plant on Sydney Harbour.

Maintenance Marine Contractors

The marine contractors interviewed included the two largest operators in the Sydney Harbour market, Waterways Constructions and Australian Wharf & Bridge. These operators account for the majority of the work completed in Sydney Harbour and each uses approximately 3,500 sqm of land and requires approximately 120 lineal metres of wharf space. The required wharf space is a function of the number of barges (with plant) operated by the contractor. The storage space is a function of business activity and the need to store timber and to a lesser extent, steel piles for immediate use. Both these operators are involved in the maintenance of marine structures in Sydney Harbour. The office area varied from 50 to 400 sqm.

All marine contractors indicated that they expected no growth in their businesses in the next few years. This comment was based upon the expectation that there would be no significant marine structures built in Sydney in the next few years and that the maintenance market would be steady.

Marine Subcontractors

The marine subcontractors land requirements varied considerably with the piling contractors requiring the most storage area with a requirement of approximately 3,000 sqm. Other subcontractors required less space, e.g. Polaris Marine, a barge rental, refueling and tug contractor requires a yard of 700 sqm and minimum wharf space of 25 lineal metres.
The marine subcontractors indicated that they had limited growth expectations but mentioned that a possible growth area may be the removal by barge of excavated materials from construction sites and dredging works.

All interviewees indicated that they leased land and water space. Waterways Constructions, Australian Wharf & Bridge and Polaris Marine are either monthly tenants or their lease expires within 12 months. Waterways Construction's lease is tied to its maintenance contract with the Waterways Authority and expires in September 1997. All interviewees indicated that they could not operate and provide the same level of maintenance service or maintain the current pricing structure to local and state government, if base facilities and barge moorings were not central to Sydney Harbour.

**Security of Tenure for Base Facilities**

All of the marine contractors interviewed indicated that their unexpired water and land space lease terms are less than 12 months. From interviews, it is concluded that this position is typical of the industry and of real concern.

**Conclusions**

There is a need for a marine contractors base in Sydney Harbour that will provide quick response to maintenance problems such as damaged public wharves etc. This is broad community requirement. From interviews, an typical marine contractor operational cycle for maintenance works has been prepared (Figure 5).

An indicative estimate of land area required to support these operations, is approximately 20,000 sqm of land area and 750 lineal metres of fixed wharf space with good access for 40 ft trailer trucks.

These businesses are not easily kept tidy. For example, debris removed from damaged or unsafe wharves is usually returned to base for disposal and short term storage is required. Turpentine piles are stored due to the unreliability of supply lines. Steel piles left over after a project are stored at base for later use or purchase by other operators at reduced prices.

The marine contractor's operations are incompatible with residential use.
FIGURE 5 - TYPICAL MARINE CONTRACTOR MAINTENANCE OPERATION CYCLE

(Note: ------------ Indicates Low Frequency Event)
**Marine Ancillary Services**

Refueling of commercial vessels is principally undertaken by barge operation with A-Barge being the largest operator with 2 vessels. Commercial ships are fueled by Shell barges direct.

Pleasure craft generally refuel from drums or from marina bowers.

Fuel barges are approximately 15m in length, and require mooring facilities of say 20m. The requirement for hardstand is minimal say 5m wide.

Barges source their fuel from Caltex, and indicated that Shell were not particularly accommodating. When Caltex close down they expect to have to source their fuel from road tankers. They require fuel once a day and take 45 minutes to fill from a road tanker, 30 minutes at Caltex. Tanker access will be required to wharf edge for refueling, and a Sydney Ports Inspector is required to check hoses each time a road tanker is used.

Refuellers expressed concern that lack of tenure for wharf space is a business risk, and loss of access would finish their business.

Several pump-out facilities are provided at marinas, charter vessel bases and wharf locations. (i.e. Jones Bay Wharf) and principally used by charter vessels. Marinas report that the use of their pump out facilities are minimal as only pleasure craft over 13m and built since 1993 require tanks. (D’Albora Marine at the Spit report that usage averages 4 times a month.) The use of pump out will increase with time and if ever pleasure craft are forced to retrofit tanks. Charter vessels use road tanker pump out for industrial waste and grease traps, and garbage is removed from wharves by Council. Wharf access must be available for these vehicles.

### 3.3.5 Recreational Clubs

**Royal Sydney Yacht Squadron**

The Royal Sydney Yacht Squadron (RSYS) own their land at Kirribilli and lease water space for their marina and boat repair facilities. The Club operates a travel lift and hard stand maintenance operation, but the scale of this is small in comparison to the accepted industry opinion of the minimum hard stand area required for an efficient dry maintenance operation (5,000 sqm). The hard stand area is approximately 3,000 sqm of which 50% is used for boat storage. The RSYS feared that the future environmental compliance cost of operation of their dry maintenance facilities may make them uneconomic causing closure of the same.

The RSYS stated that they required additional land and water area for hard stand storage of one class yachts e.g. J24’s, Etchells, Solings and Yrglings. This would only occur by way of purchase of adjoining properties and they doubted whether the council would approve of any expansion of their operations due to the predominantly residential nature of the area.

There was concern regarding adequate facilities for one class yacht racing during the Olympic Games and the lack of firm proposals for yachting facilities similar to other sports.
The Cruising Yacht Club of Australia

The CYCA lease land and water area. Lease tenures are not short term. The major problem with their operations is the lack of car parking. The club receives a complaints from local residents regarding noise and car parking congestion and the Council has reacted by erecting 2 hour resident parking only signage that operates between 8:00 a.m. and 8:00 p.m., 7 days per week in New Beach Road. Needless to say this has impacted on membership.

The CYCA are seeking additional land and water space to expand its operations and to accommodate on site car parking facilities. They similarly do not see Council cooperation in realizing these plans.

The CYCA also raised the issue of Olympic yacht racing facilities and said that the proposals currently being discussed with SOCOG for the use of the adjacent RAN land and the Sir David Martin Reserve were progressing very slowly.

Power Boat Association

The Power Boat Association representative advises that the principal concern of their members is the availability of ready access to well maintained boat ramps. Members of the Association have expressed concerns that there is a general lack of maintenance and a deterioration of launch ramp facilities.

The Joint Hardstand Committee

The main yacht clubs and the motor yacht clubs have made a joint submission to State Government regarding the best method of controlling marine repairs pollution. This proposal apparently includes a major marine repair facility to be located at Rozelle Bay.

3.3.6 Government

Police

The Water Police are based at Wharf 25, Johnstons Bay. The Water Police provide their own maintenance facilities which involves a travel lift and hard stand area. They also operate fixed berth storage of up to 6 boats of average length of 10 metres. The hard stand maintenance area is approximately 600 sqm and the current dry maintenance facilities include 10 metre clearance work bays. A boat ramp is also used. Office area is approximately 500 sqm. Total land area is approximately 1,500 sqm. The interviewee was not sure of these areas.

The Water Police state that they currently under utilize the land leased. They do not require additional land in the future.

The Water Police currently lease the land and water space from City West Development Corporation. City West have expressed a desire for the Water Police to relocate but the Water Police have ten years remaining on their lease.
The Water Police if they are required to relocate would prefer to be based in Balmain. There is a proposal to relocate the Water Police to the back of White Bay. This proposal is apparently unattractive to the Water Police.

**Customs**

Customs have one base facility on Sydney Harbour located at Neutral Bay. Customs operate offices at various inbound tourist passenger terminals around Sydney. In the last two years, Customs has re-organized its operations. The marine units that were located at Neutral Bay have been relocated into a central office (in Canberra) and boats are kept predominantly out of Sydney Harbour to permit off shore patrols of the eastern coastline.

The facilities at Neutral Bay are currently empty and the wharves are used for detention of visiting yachts etc.

The Neutral Bay premises are located on leasehold land on a 99 year lease. The term to expiry was not known.

Customs have no firm plans to relocate back into the Neutral Bay premises at the present time. Furthermore, Customs have no plans to expand its operations.

The customs premises, which include limited wharf space, may be suitable for alternative use. However we do not believe that the location is suitable for the Water Police as significant hard stand and wharf space would need to be constructed in a predominantly residential zone. Street access is not good.

This property may be suitable for adaptation to a charter vessel base.

**Sydney Ferries**

The Sydney Ferries currently operate 26 vessels. These are 6 catamarans, 7 river catamarans, 3 lady class ferries, 4 Manly ferries and 3 jet catamarans. Vessel sizes range from 25 to 72 metres in length. Sydney Ferries are currently seeking to purchase 2 additional catamarans and potentially a further 8 more vessels over the next few years. Some vessels will be retired over this period but the overall fleet number should increase.

Current facilities are located in Mort Bay, Balmain and Circular Quay. The lands are owned by Sydney Ferries. The Balmain facilities include two land finger wharves with integrated fuel services. The base includes approximately 500 sqm of office space and an unspecified amount of high clearance work space. Sydney Ferries operate their own dry maintenance facilities with the use of a dry dock. Only the Manly Ferries are maintained outside the base and maintenance is generally completed at Garden Island or at Newcastle.

Sydney Ferries are under no pressure to relocate and are not requiring additional land. If fleet numbers grow by 2 vessels, then additional wharf space will be sought either by expansion of its current facilities in Balmain or at Circular Quay. Boats are stored over night at Circular Quay and at Balmain.
Fuel is obtained from Caltex at Ballast Point. Sewerage pump out is completed at Circular Quay.

Sydney Ferries provide scheduled charter services. This market grew quite strongly and they state that it is now mature and they expect an annual growth rate of 4% per annum. The growth area for services will be the Parramatta River, and to a lesser extent Manly.

Sydney Ferries expressed an interest in relocating to Rozelle Bay so they could operate on a 24 hour basis without complaints from residents. They also advised that parking is a problem for staff. They expressed concern that the adjoining Colgate land will be converted to residential and this will exacerbate the problem. They suggested that they may sell their land at Balmain to fund construction of a new base at Rozelle Bay, but it is believed that this proposal has not been considered seriously by Sydney Ferries as little detail was available after some discussion.

Sydney Ferries stated that Circular Quay had insufficient space on the wharves for commuters.

3.3.7 Maritime Museums

*Sydney Maritime Museum*

The Sydney Maritime Museum charter is to “Restructure and operate heritage vessels.” The Museum is largely staffed and operated by volunteers and is a non profit organization.

The vessels owned by the Museum and requiring mooring facilities are:

**Table 8 - Sydney Maritime Museum Vessel Schedule**

<table>
<thead>
<tr>
<th>Vessel Name</th>
<th>Length (m)</th>
<th>Beam (m)</th>
<th>Tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea Heritage Dock</td>
<td>60</td>
<td>16.0</td>
<td>NA</td>
</tr>
<tr>
<td>James Craig</td>
<td>55</td>
<td>9.5</td>
<td>400</td>
</tr>
<tr>
<td>John Oxley (Pilot Vessel)</td>
<td>51</td>
<td>9.8</td>
<td>500</td>
</tr>
<tr>
<td>M.V. Kanagra</td>
<td>47</td>
<td>9.6</td>
<td>391</td>
</tr>
<tr>
<td>Tug Waratah</td>
<td>33</td>
<td>6.1</td>
<td>125</td>
</tr>
<tr>
<td>Lady Hopetown</td>
<td>23</td>
<td>4.2</td>
<td>32</td>
</tr>
<tr>
<td>Schooner Boomerang</td>
<td>21</td>
<td>5.1</td>
<td>60</td>
</tr>
<tr>
<td>Gretel II</td>
<td>20</td>
<td>3.7</td>
<td>27</td>
</tr>
<tr>
<td>Harman (Cockatoo Work Boat)</td>
<td>14</td>
<td>3.3</td>
<td>NA</td>
</tr>
<tr>
<td>Berrima</td>
<td>12</td>
<td>2.7</td>
<td>13</td>
</tr>
<tr>
<td>Protex (Nicholson/Stannard Ferry)</td>
<td>11</td>
<td>3.0</td>
<td>8</td>
</tr>
<tr>
<td>Whaler</td>
<td>8</td>
<td>1.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Plus service punts and barges</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Waratah and Lady Hopetown are coal burners and require access for coal bunkering and ash removal. Smoke pollution is likely to be an issue if moored in residential or public areas.
The Sea Heritage dock is used for vessel restoration.

The Museum currently uses wharves 5 & 8 Rozelle, accessed from James Craig Road, for mooring vessels and for their workshops. Total wharf length is approximately 150 metres with several vessels rafted up. As vessels are restored and made operational rafting makes operation very difficult.

The Museum operates its boats on a charter basis (charter clients organize their own catering) and require access to wharf space for pick up and set down of passengers. At present they are able to ensure the majority of pick up and set downs are from the Rozelle facility, a practice that will be continued. The parking is also good in James Craig Road. On busy days 20 car parks would be required for volunteers and say 30 for passengers. The Kanangra and James Craig when restored will each take a maximum of 200 passengers, and passenger parking and access will be a larger consideration. Coach access is limited to irregular tours and would only be on a basis of one coach at a time.

The hard stand area associated with each wharf is approximately 30 metres deep, of which the first 10 metres is wharf structure. The wharf is in variable condition with no maintenance having taken place in at least the last 13 years.

The Museum workshop on Wharf 5 is approximately 500 sqm (4m clearance) and houses metalwork, woodwork, plumbing, and general workshops. The office, library, research, storage and display facility at 6 Mayfield Street Rozelle is 1400 sqm.

Ideally the Museum would like an administrative, storage and workshop of 2,500-3,000 sqm plus 3,000 sqm of hard stand in the same location as the berthing facility. The total linear length of berthing required is approximately 240 metres, which could likely be provided on a wharf frontage of 150 metres if end on mooring and mooring piles were allowed. (Excludes mooring for James Craig which when fully rigged will not fit under the Glebe Island bridge.)

Mooring (70 metres of wharf) is required for the James Craig when it is restored.

Long term the requirements for mooring space and office/workshop facilities are not expected to increase significantly as existing vessels reasonably adequately represent the marine history of Sydney Harbour.

The proposal, (if it eventuates) for the Museum to be part of the Walsh Bay development poses problems with the mix of a working museum and workshops in the centre of a residential precinct. The development proposal is more in line with a static display and the restoration, maintenance and some operational facilities would need to be located at another venue.

National Maritime Museum

The National Maritime Museum has a major display facility at Darling Harbour, is Commonwealth funded, and unlike the Sydney Maritime Museum does not have the emphasis on operation.
The vessels owned by the Museum are generally moored at their wharves in Darling Harbour, they believe there is sufficient capacity to meet their foreseeable needs. It is unlikely the size of their fleet will increase significantly, apart from possibly the Endeavour, in the next few years. The Museum vessels are:

### Table 9 - National Maritime Museum Vessel Schedule

<table>
<thead>
<tr>
<th>Vessel</th>
<th>Length (m)</th>
<th>Beam (m)</th>
<th>Displacement (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advance</td>
<td>32.5</td>
<td>6.1</td>
<td>146</td>
</tr>
<tr>
<td>Akarana</td>
<td>12.0</td>
<td>2.2</td>
<td>9</td>
</tr>
<tr>
<td>Bareki</td>
<td>12.39</td>
<td>4.36</td>
<td>24.5</td>
</tr>
<tr>
<td>Broadbill</td>
<td>NA</td>
<td>NA</td>
<td>4</td>
</tr>
<tr>
<td>CLS4 (Light Ship)</td>
<td>21.9</td>
<td>8.5</td>
<td>160+</td>
</tr>
<tr>
<td>John Louis</td>
<td>20.5</td>
<td>5.04</td>
<td>36</td>
</tr>
<tr>
<td>Kathleen Gillet</td>
<td>13.18</td>
<td>4.56</td>
<td>23</td>
</tr>
<tr>
<td>Krait</td>
<td>21.3</td>
<td>3.04</td>
<td>50</td>
</tr>
<tr>
<td>Epic Lass</td>
<td>11.9</td>
<td>2.9</td>
<td>10</td>
</tr>
<tr>
<td>Sekar Aman</td>
<td>15</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Thistle</td>
<td>11.27</td>
<td>2.89</td>
<td>15</td>
</tr>
<tr>
<td>To Do</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Vampire</td>
<td>118.9</td>
<td>13.1</td>
<td>3,286</td>
</tr>
<tr>
<td>Mullett</td>
<td>7.9</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

The Museum has a repair and maintenance facility at Berry’s Bay (Old Customs station) and has a water frontage of approximately 50 metres and land area of 2,500 metres. The land to high water mark is on Waterways lease, with the remainder State Property land. Several heritage buildings (coal bunker, workshops, customs cottages) and a small slip are on the site. Although they have no long term lease they appear unconcerned with their lack of tenure.

The Museum’s timber vessels cannot be lifted by travel lift, and require tractional slipway. The Museum is concerned at the number of repair yards and slipways that have closed in recent years (Neptune, Goal Island, Halvorsen’s Ryde, Birkenhead Point), and they have difficulty in obtaining three quotes for slipping their vessels of 30 tonnes and more.

### 3.3.8 Fishing Industry

#### Fish Markets

The fishing fleet requiring mooring facilities in Sydney Harbour comprises:

a) Harbour Prawn Fleet:

Typical boats are 6-7 metres in length and trawl within the harbour for the November to March season. Remainder of the year they are tied up at berths or moorings in the harbour. Approximately 6 trawlers are tied up at the Fish Markets, with some at Leichhardt and in Botany Bay.
b) Offshore Sydney based trawlers and long line boats:

Typical boats are 15-23 metres in length and weigh up to 80 tonnes. Approximately 12 boats are berthed at the Fish Markets with another 6 at Piers 7 & 9 Pyrmont. The boats trawl for fish and prawns throughout the year.

c) Itinerant fishing fleet:

These boats work the coast most of the year fishing for tuna etc. Up to 20 boats may arrive in the harbour and berth at the markets staying for a week or so before moving on, to return several weeks later. Typically the boats are 13-23 metres in length but are faster and lighter than the trawlers. When in harbour they “raft up” together.

A typical commercial fishing operation cycle has been prepared from interviews (Figure 6).

Access to the fish unloading jetty can be a problem, as boats often moor at the jetty.

The Sydney based fishing fleet is small in comparison with other coastal based fleets, but accommodation is at a premium. Berthing for another 12 fishing boats would alleviate pressure enabling the 6 Pyrmont boats and the itinerant fleet to be accommodated, and would help overcome the problem of vessels tying up at the unloading jetty.

Some existing berths cannot be utilized as there is insufficient depth. Dredging is not considered a viable option as the sea wall is likely to be undermined.

The pontoon jetty for pleasure craft (stay limited to 2 hours) ideally needs to be extended.

A Master Plan for redevelopment of the adjoining foreshore envisages complementary retail and wholesale outlets plus open space.

Fishing berths are let at nominal rates with the Markets receiving their returns on the sale of fish.

**Fishing Fleet**

The 6 boats (Bagnato family) moored at Pyrmont have monthly tenure and been advised by City West that they will have to relocate within the next year or so. They have not been able to find an alternative berthing location.

The fishing industry is being “squeezed” by quotas and regulation. If as claimed, the industry is no longer profitable, then the size of the fleet is unlikely to expand.

Access to the fish market unloading jetty needs to be policed or the number of berths increased.
FIGURE 6 - TYPICAL COMMERCIAL FISHING OPERATION CYCLE

(Note: ........................ Indicates Low Frequency Event)
Fishing boats are generally slipped twice a year. Slipping facilities are limited and decreasing and are expensive (e.g. $250 per day plus lifting charges.) Operators need to be able to use their own labour to keep costs down.

Fueling is generally by barge, and is not a problem. As much maintenance as possible is carried out at the berth. Waste and oil disposal can be a problem. Minor net repairs are carried out on the boat with major repairs on the wharf or “off site”.

A separate car park for fishermen (as at Nelson Bay) would be desirable, as on occasions they cannot get access with their vehicles.

3.3.9 Defence Services

Land at North Head where the School of Artillery is located will be vacated and sold. No foreshore land at the adjacent Chowder Bay Refueling Facilities will be become available for sale.

The land at HMAS Platypus at Neutral Bay is currently in the process of being rezoned to residential use and will be sold. Land area is approximately 2 ha.

Approximately 7 ha of land in two parcels at Clarke’s Point Reserve, Woolwich, will be rezoned to residential and sold. These facilities include a dry dock which is now unserviceable and has been flooded.

Cockatoo Island includes contaminated land and may have a negative residual land value for residential use but may have value for industrial use. The view is that yard on this island can be recommissioned and sold to a private operator. However, it is noted that interviewees in the marine repair industry stated that the operation is not feasible as a going concern due to the cost of commissioning the slip ways etc. and the ongoing cost of importing materials and labour over water on a daily basis.

Spectacle Island is not proposed to be sold.

Approximately 19.6 ha of land will be sold at Ermington for residential use. There is some contamination of this site but should not impact on the value to a great degree.

The ADI site formerly the Lars Halvorsen yard at Putney has been advertised for sale for residential use.

It should be noted that the stated objectives of the Property Disposal Unit of the Department of Defence are as follows:

a) Maximize sale proceeds.

b) Act in accordance with sound planning principles.

c) Consult widely with the public and other bodies.

There appeared little awareness by the Property Disposal Unit of the current problems facing the marine industries on Sydney Harbour.
These Defence properties are centrally located in Sydney Harbour and represent solutions to shortage of land for marine industrial use.

4.0 PLANNING ISSUES

The power to approve development applications (the determining authority) for marinas, marine repair facilities, in fact any structure located above, at or below the mean high water mark is vested in the relevant local council, and in some cases, the Minister for Planning under the Environmental Planning and Assessment Act, 1979.

In fact, the Act states that “marinas (comprising pontoons, jetties, piers or other structures (whether water based or land based) designed to provide moorings or dry storage for a total of 30 or more vessels used primarily for pleasure or recreation, or comprising (whether or not in addition to the foregoing) works such as slipways, hoists or facilities for the repair and maintenance of vessels at which 5 or more vessels used primarily for pleasure or recreation are handled or are capable of being handled at any one time)...” is deemed to be a designated development.

Other Acts such as the Clean Water Act, 1970 are relevant to the provisions for designated developments in the Environmental Planning and Assessment Act, 1979.

The approval process for designated developments can be protracted. Requirements under the Environmental Planning and Assessment Act such as an environmental impact statement, advertising of the development, third party right of appeal and the s 101 powers of the Minister of Planning make the process complicated and time consuming for applicants.

It is not surprising that local councils are difficult to deal with with regard to this type of development application i.e. for expansion of existing or new marine industrial facilities.

In discussions with the interviewees, a common message regarding foreshore land was evident. There is a push by owners of foreshore land, local residents, developers and councils to replace marine and industrial uses with residential and open space. Whilst regional government is concerned about the loss of suitable foreshore space for marine industrial use, there appears a degree hesitancy by regional government to intervene in the planning processes to address the requirements of the marine industry.

5.0 CONCLUSION

The charter vessel operators, marinas and marine repairers are about to undergo restructuring of their industries as a result of the implementation of regulatory policies, actions of government and other market forces.

The scheduled tourist segment of the charter vessel market is about to undergo expansion with the introduction of more vessels of larger capacity due to the changes in ownership of some operators.

Changes in the engineering technology of the marine repairs industry with associated economies of scale and improved labour productivity will also act to increase the size of a
modern repair facility. The EPA will be a force in its implementation of pollution control measures via its licensing powers under the Clean Water Act. 1979.

Smaller marinas dependent upon marine repairs revenue will be affected and some of the marginal players will be unprofitable and cease to operate. The current competitive actions i.e. the pricing policies of Waterways in the swing mooring market will, if unchanged, limit a vital source of revenue to marinas.

The cost of marine maintenance will increase if marine contractors are forced from base facilities located centrally in Sydney Harbour.

The shortage of foreshore land and the current trend to rezone the same to residential or open space uses will impact on the restructuring of these industries.

In general there is a lack of secure tenure for berthing facilities, public wharf access and foreshore land for all industries.

Capital renewal proposals for businesses in their current mode of operation are not feasible. Therefore commitment of significant capital to meet the regulatory requirements, maintain wharf structures etc. and to provide modern and efficient marine facilities is rare.

The Defence Services control a significant proportion of foreshore land located centrally in Sydney Harbour. This land is more suitable for industrial use in some cases due to land contamination. This land is currently being sold by the Commonwealth Government with little consideration of the future of maritime industries in Sydney Harbour.

The current practice of rezoning foreshore land for residential use, if left to continue unabated and without due consideration of the marine industries on its foreshores, will result in the effective disappearance of these industries from the Harbour resulting in a lack of services to support both commercial shipping including pleasure craft and to maintain the many marine structures in Sydney Harbour.

All levels of government need to coordinate with the marine industries on Sydney Harbour to ensure that the restructuring of these industries occurs in an orderly and planned way so as to ensure that more efficient marine industries result.

Marine construction and repair facilities are often dirty, untidy and noisy by nature, but are essential to service a working harbour and pleasure craft and must be in locations suitable to the operational requirements of each industry.

The key element in this process appears to be that suitable and sufficient foreshore land should be zoned for industrial use and the permitted uses should exclude residential use.

Planning decisions need to be based upon regional rather than local considerations.

J.T. Rolls Pty Limited
24 February 1997
INTERVIEW/PHONE QUESTIONNAIRE
Survey of Demand for Sydney Harbour Foreshore Land
For the Office of Maritime Administration

Introduction: Survey of Sydney Foreshore land users for the Office of Marine Administration
Formerly the Office of Marine Safety and Port Strategy

We are talking to a range of stakeholders who use the Sydney foreshore about how they use land
and water space, what their current and future land requirements will be.

The main objective is to obtain a view on the demand for foreshore land in the future.

The information obtained from your answers will be aggregated and individual confidentially
will be maintained.

Name of Organization: ____________________________________________

Contact Name: ________________________________________________

Position: _____________________________________________________

Contact Phone: ____________________________ Date: ________________

- Your operation is best described as:

Charter Vessel ☐ Public Transport ☐ Police ☐
Private Transport ☐ Marina ☐ Customs ☐
Marine Contractor ☐ Commercial Fishing ☐ Yacht Club ☐
Defence Forces ☐ Maritime Museum ☐ Government ☐
Other ☐ Marine Repairs ☐

- Do you have any other locations in Sydney for your operations?

Location __________________________________________

Description of Operations __________________________________________

JT ROLLS PTY LTD
DEMA! FOR FORESHORE LAND

- How much foreshore land do you occupy? Please express in square metres. ___________ (sqm)
- How much water space do you occupy? ___________ (sqm)
- How do you use foreshore land? Please indicate the type of structure and its primary use.

<table>
<thead>
<tr>
<th>Type of Structure</th>
<th>Area (sqm)</th>
<th>Primary Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Clearance Work Area (less than 4 metre clearance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Eg Workshop)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Clearance Work Area (greater than 4 metre clearance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Eg Covered slipway)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Area (Eg Administration, Marketing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Showroom (Eg at a marina)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slipways (Get number of slips and cradles)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardstand Area (Eg Boat storage and maintenance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Craneage/Travel Lift (Get number and tonnage capacity)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Area (Equipment store only, not boats)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car Park (Number of Cars or area)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interview notes:

疗法:
• Do you experience any difficulties in gaining access to or negotiating tenure over water space or land facilities?

• Do you require additional or less land for the future? For what facilities?
  
  Less  □  No Change  □  More  □

• Do you require additional or less water space for the future? For what facilities?
  
  Less  □  No Change  □  More  □

• Do you intend to expand your facilities in the near future?  
  Yes  □  No  □

  If yes, please detail what your expansions plans are. (check for underutilisation of land or water area)

• Do you lease or own the foreshore land?
  
  Own  □  Lease  □  Nil  □  Not Applic.  □

• If you lease, what gross rental do you pay?  
  _________ ($/pa)

• What gross rental do you pay for the water space?  
  _________ ($/pa)

Interview notes:
Survey of Foreshore Users
Office of Maritime Administration

- What is the unexpired term of your leases?
  Land ____________________ (years)  Water ____________________ (years)

- Are you a monthly tenant ____________________ (yes/no)

- Is your tenure threatened in any way?

- Do you sublease space for your operations or to another business?  Yes  No

- If you own the land on which your operations are based, what proposals do you have for the future use of it?

DEMAND FOR PUBLIC WHARF FACILITIES (Mainly Charter Vessel Operators)

- Please provide details of the boats operated by you.

  Name of Vessel  Length  Max Passengers

  ______________________________________________________
  ______________________________________________________
  ______________________________________________________
  ______________________________________________________
  ______________________________________________________
  ______________________________________________________
  ______________________________________________________
  ______________________________________________________
  ______________________________________________________
  ______________________________________________________
• Do you use public wharves eg for pick up and put down of passengers? Please list in order of frequency of use:

1

2

3

4

• Do you use public wharves for any other purpose?

• How difficult is it to get access to public wharves? (Please circle)

   Impossible  Difficult  Relatively Easy  Not a problem  Not Applic.

Nominate public wharves that are difficult to access and why

• Do you expect to require additional or less access to public wharves in the future?

   Less  No Change  More

• What tenure do you have over access to and use of these locations?

   Licence  Verbal Agreement  Nil

• Do you pick up and put down passengers at your operations base?

   Yes  No  Not Applicable
DEMAND FOR MOORING FACILITIES

- If you use or provide mooring facilities, please indicate the type and number of each.

<table>
<thead>
<tr>
<th>Number</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wharf Berths</td>
<td></td>
</tr>
<tr>
<td>Pontoon Berths</td>
<td></td>
</tr>
<tr>
<td>Moorings</td>
<td></td>
</tr>
</tbody>
</table>

- What is the current vacancy rate for the private mooring facilities provided by you?

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage Vacant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wharf Berth</td>
<td></td>
</tr>
<tr>
<td>Pontoon Berth</td>
<td></td>
</tr>
<tr>
<td>Moorings</td>
<td></td>
</tr>
</tbody>
</table>

- Do you need or want additional or less private mooring facilities in the next five years? Nominate number required.

<table>
<thead>
<tr>
<th>Less</th>
<th>No Change</th>
<th>More</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Why?

<table>
<thead>
<tr>
<th>Why?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
DEMAND FOR ANCILLARY SERVICES (Mainly Marina Operators and Charter Vessels)

- What services do you out source or provide in the operation of your business?

<table>
<thead>
<tr>
<th>Service/Product</th>
<th>Provide Own (yes/no)</th>
<th>Out Source (yes/no)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
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<tr>
<td>Sewerage Pump Out</td>
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<tr>
<td>Cleaning</td>
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<tr>
<td>Waste Removal</td>
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<tr>
<td>Wet Maintenance</td>
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<tr>
<td>Dry Maintenance</td>
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<tr>
<td>Catering</td>
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</tbody>
</table>

- Do you anticipate that you will have greater or reduced demand for ancillary services over the next five years? Please specify.

<table>
<thead>
<tr>
<th>Service/Product</th>
<th>Demand Outlook (expressed as a percentage increase/decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
<td></td>
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<tr>
<td>Sewerage Pump Out</td>
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<td>Cleaning</td>
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<tr>
<td>Maintenance</td>
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<tr>
<td>Catering</td>
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</tbody>
</table>


Survey of Foreshore Users
Office of Maritime Administration

- Why?

- Do you encounter any difficulties in accessing these ancillary services?

PRIMARY MARKETS

- Where in your operations do you expect growth/decline to occur in the future?

- What is the major factor influencing demand for your services/products?

REGULATION

- What changes in the regulatory environment are impacting on your operation(s)?

  Ask for Environmental Protection Authority (EPA), Council, Waterways etc.
• Describe the impacts and the effects on your operations.

• Are you currently involved in any dispute(s) with Council, EPA, Waterways, local residents, etc. Please give details.

MONOPOLIES
• Given the current trend to reduced supply of foreshore land in Sydney, are you aware of any monopolies that are being created. Why?

FURTHER CONTACTS
• Please suggest any other contacts whom you think would be interested in talking to us.

FINAL COMMENT
• Would you care to make any further comments?