



**Proposed Modifications to Boat Storage at the  
Rose Bay and Point Piper Marinas  
Peer Review of the Traffic and Parking Report prepared  
by Christopher Hallam & Associates Pty Ltd**

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## 1. INTRODUCTION

This report has been prepared as a peer review of the Traffic and Parking Assessment Report prepared by Christopher Hallam and Associates Pty Ltd<sup>1</sup> (the “Hallam Report”) which forms part of the DA submission to Woollahra Council for proposed modifications to the boat storage facilities at the Rose Bay and Point Piper Marinas.

For convenience, this report has been formatted in the same way as the Hallam Report, with Chapter 2 commenting on the surveys of boat usage and parking demand conducted by Christopher Hallam and Associates Pty Ltd, Chapter 3 commenting on the traffic and parking implications of the proposed modifications and Chapter 4 presenting the conclusion of the peer review.

The proposed modifications to the boat storage facilities at the Rose Bay and Point Piper marinas will result in an overall reduction in the number of licensed boat storage facilities (by 50 spaces), and a reversal of the existing majority of moorings (approximately 77%) to a proposed majority of berths (approximately 91%) in both marinas, as follows:

	Existing			Proposed		
	Berths	Moorings	Total	Berths	Moorings	Total
Rose Bay	29	72	101	124	10	134
Point Piper	23	100	123	35	5	40
Total	52	172	224	159	15	174

It is noted that some 30% of the existing mooring licenses at the Rose Bay and Point Piper marinas are currently unused, such that the number of facilities currently in use is actually 52 berths and 124 moorings, yielding a total of 176 existing facilities in use, still greater than the 174 storage facilities proposed.

It is also understood that the NSW Maritime intends to introduce up to an additional 15 private swing moorings in conjunction with the proposed modifications to the boat storage facilities at the Rose Bay and Point Piper marinas.

<sup>1</sup> Christopher Hallam and Associates Pty Ltd “Traffic and Parking Assessment of Proposed Modifications to Rose Bay and Point Piper Marinas” September 2006.

## 2. SURVEYS OF BOAT USAGE AND PARKING DEMAND

The Hallam report sets out the results of an extensive survey program conducted by Christopher Hallam and Associates Pty Ltd over the last 7 or 8 years to provide information on boat usage and parking demand at Marinas. Much of this survey data was carried out as part of a study conducted for the Boating Industry Association of NSW<sup>2</sup> (“Boating Industry Association Report”), and a copy of the Boating Industry Association Report is included as Appendix A to the Hallam Report. Additional surveys subsequently conducted at the Rose Bay and Point Piper Marinas, at the Double Bay Marina, and at the Royal Motor Yacht Club are described in Chapter 2 of the Hallam Report.

The surveys of boat usage and parking demand at marinas conducted by Christopher Hallam and Associates provide a good basis for determining the parking implications of the proposed modifications to the Rose Bay and Point Piper marinas in that:

1. The surveys were carried out at 7 separate marinas, notably Rose Bay, Point Piper, Royal Motor Yacht Club, Double Bay, Gladesville, Cabarita and Dolans Bay marinas.
2. The surveys were carried out over an extended period of time involving a total of 336 survey days as follows:

Rose Bay	39 days in April/May 2000 61 days in December/January 2000/2001 65 days in June/July/August 2006
Point Piper	31 days in April/May/June 2000 65 days in June/July/August 2006
Double Bay	5 days during Easter 2006
RMYC	18 days in June/July/August 2006
Gladesville	16 days in July 1998 and May 1999 12 days in July 1999 and October 1999
Cabarita	12 days in July 1999 and October 1999
Dolans Bay	12 days in December/January 2000/2001

3. A consistent survey methodology was used in all of the survey enabling consolidation of the survey results.

## 2.1 Boat Usage and Parking Demand - Berths and Swing Moorings

A summary of the results of the surveys of boat usage and parking demand at the Rose Bay, Point Piper, Gladesville, Cabarita and Dolans Bay marinas is set out in Table 3.9 of the Boating Industry Association report as follows:

**TABLE 3.9 - Summary of Boat Usage and Parking Demand Rates - Weekends**

Factor	Rose Bay Marina		Point Piper	Gladesville/Westport		Dolans Bay
	Autumn	Summer	Autumn	July 98	July, Oct 99	Summer
00/01	2000	2000/01	2000	+ May 99		
Boats used/berth	0.143	0.153	0.111	-	0.049	0.181
Parking demand/berth	0.175	0.238	0.114	0.138	-	0.188
Boats used/mooring	0.193	0.225	0.083	-	0.115	0.197
Parking demand/mooring	0.295	0.362	0.121	0.106	-	0.197
Number of survey days - berth	7	20	16	8	6	12
Number of survey days - mooring	13	20	15			
Cars/boat marina berths	1.22	1.55	1.02	-	-	1.04
Cars/boat swing moorings	1.53	1.62	1.37	-	-	1.00

A summary of the results of more recent surveys of boat usage and parking demand at the Rose Bay, Point Piper, RMYC and Double Bay marinas is set out in Table 2.6 of the Hallam Report which is reproduced below.

**TABLE 2.6 - Summary of Marina Boat Usage and Parking Demand**

Factor	Autumn	Summer	Autumn	Winter	Winter	Easter
Boats used/berth	0.143	0.153	0.111	0.055	0.045	0.11
Parking demand/berth	0.175	0.238	0.114	0.067	0.048	0.212
Boats used/mooring	0.193	0.225	0.083	0.068		0.33
Parking demand/mooring	0.295	0.362	0.121	0.071		0.370

The survey results reveal a consistent trend that:

- Boats on moorings are used more frequently than boats on berths.
- The parking demand generated by boats on moorings is higher than the parking demand generated by boats on berths.

<sup>2</sup> Christopher Hallam and Associates Pty Ltd "Boating Industry Association of NSW - The Car Parking Implications of Marina Developments" April 2001.

### *Implications of Boat Length*

The results of the surveys of the group size (ie number of people on each boat) and parking demand for boats of different lengths at the Rose Bay and Dolans Bay marinas are set out in Tables 3.11 and 3.12 of the Boating Industry Association Report as follows:

**Table 3.11 - Group Size and Cars Parked by Boat Length**

Weekdays	Rose Bay Marina - All Days		Dolans Bay Marina			
	Autumn		Summer		Autumn	
Length (foot)	Group	Cars	Group	Cars	Group	Cars
15-20	3.00	1.17	2.38	1.36	1.78	1.04
21-25	2.25	1.16	2.90	1.41	1.65	1.15
26-30	2.79	1.26	3.27	1.56	2.10	1.00
31-35	4.04	1.54	3.81	1.78	2.56	1.06
36-40	2.86	1.27	4.93	2.37	1.47	1.00
41-50	-	-	3.58	1.45	-	-
> 50	4.80	1.60	2.13	1.50	-	-

**Table 3.12 - Group Size and Cars Parked by Boat Length - Rose Bay Marina**

Boat length (foot)	Autumn		Summer	
	Group	Cars	Group	Cars
26-35	3.30	1.37	3.49	1.66
Over 35	3.33	1.38	4.27	1.99

The results of more recent surveys of the group size and parking demand of different length boats at the Rose Bay, Point Piper and RMYC marinas are set out in Table 2.10 of the Hallam Report as follows:

**Table 2.10 - Summary of the Effect of Boat Length RMYC + Point Piper + Rose Bay - Winter 2006  
All Berths and Moorings**

Length (foot)	Mean Length (ft)	Sample size	Avg Group	Cars/boats	Cars/person in Group
0-29	24.4	143	2.70	1.05	0.52
30-39	33.1	147	3.09	1.13	0.48
40-49	43.7	102	3.36	1.04	0.38
50-59	51.7	34	4.35	1.24	0.36
60+	66.1	7	4.29	0.71	0.20

The survey results indicate a consistent trend of increased group size with increased boat length. However, a proportional increase in the parking demand of boats with increased

length is not indicated. In fact, the surveys reveal little difference in the parking demand characteristics of larger boats with their larger groups of people, compared to smaller boats with smaller groups of people. This appears to be a logical consequence of the larger group size on bigger boats creating the potential for higher occupancy levels in the cars used to transport people to/from the marinas. At best, it might be argued that the parking demand potential of larger boats (say 50 feet or greater) is 20% more than the parking demand potential of smaller boats (less than 30 feet).

### **3. TRAFFIC AND PARKING IMPLICATIONS OF PROPOSED MODIFICATIONS**

#### ***Parking Implications***

The factors which will affect the parking demand implications of the proposed modifications to the boat storage facilities at the Rose Bay and Point Piper marinas are:

1. The reduction in the overall number of boat storage facilities.
2. The change from an existing majority of moorings to a proposed majority of berths.
3. The potential for the proposed new marina facilities to accommodate larger sized boats.

As noted in the Introduction to this report, the proposed modifications will reduce the number of licensed boat storage facilities at the Rose Bay and Point Piper marinas by 50 spaces, or approximately 22% of the total number of licensed facilities. Accordingly, if the existing boat usage and parking demand characteristics were maintained in the modified marinas, the total parking demand potential of the proposed marinas would be some 22% less than the parking demand potential of the existing marinas.

It is also noted in the Introduction that 30% of the existing mooring licenses (or nearly 22% of the existing boat storage facilities) are currently unused. However, it is understood that there is a 14 month wait to lease one of the cheaper NSW Maritime private swing moorings and that the Rose Bay and Point Piper marinas have not sought to market the unused moorings in anticipation of the proposed modifications to the boat storage facilities at those marinas, and to avoid consequent disruption to boat owners who might lease the currently unused moorings. For assessment purposes, it is reasonable to assume that the parking demand potential of both the existing and modified marinas is based on full utilisation of the licensed boat storage facilities.

The likelihood that the NSW Maritime will install up to an additional 15 private swing moorings in conjunction with the proposed modifications to the boat storage facilities at the Rose Bay and Point Piper marinas is recognized. If the NSW Maritime does actually install

up to an additional 15 private moorings, the reduction in the overall number of boat storage facilities following the proposed modifications reduces to 35 spaces.

For assessment purposes therefore, it has been assumed that following the proposed modifications to the boat storage facilities at the Rose Bay and Point Piper marinas there will be an overall reduction of 35-50 spaces, or 16-22% of the total number of licensed boat storage facilities permitted at the Rose Bay and Point Piper marinas.

The surveys conducted by Christopher Hallam and Associates Pty Ltd which are described in the previous chapter consistently indicate that boats on swing moorings have a significantly higher usage rate than boats in berths, and that boats on swing moorings generate a higher parking demand than boats in berths. There is no reason why that same trend should not be experienced following the proposed modifications to the boat storage facilities at the Rose Bay and Point Piper marinas. As noted in the foregoing, the proposed modifications will substantially increase the number of berths at the marinas and substantially reduce the number of swing moorings. In those circumstances, and in the absence of other factors which might affect the trend identified by the surveys, it can be reasonably assumed that the parking demand potential of the Rose Bay and Point Piper Marinas following the proposed modifications will be reduced.

That circumstance is reflected in Table 3.3 of the Hallam Report which calculates that the total parking demand potential of the 224 licensed boat storage facilities at the existing marinas is 75 spaces, while the parking demand potential of the 189 licensed boat storage facilities after the proposed modifications (174 facilities at the Rose Bay and Point Piper marinas plus up to 15 new NSW Maritime private swing moorings) is 49 spaces. That calculation therefore indicates that the proposed modifications to the Rose Bay and Point Piper marinas will reduce their parking demand potential by 26 spaces if the NSW Maritime installs up to an additional 15 private moorings at Rose Bay.

**Table 3.3 - Current and Projected Summer Parking Demand**

<b>Berth/Mooring</b>	<b>Existing</b>	<b>Projected</b>
Berths	52 x 0.238 = 12.4	159 x 0.238 = 37.8
Moorings	172 x 0.362 = 62.3	15 x 0.362 = 5.4
Public moorings	-	+15 x 0.362 = 5.4
Total	224            75 cars	189            49 cars

To take into account the potential for the Rose Bay and Point Piper marinas, following the proposed modifications to the boat storage facilities, to accommodate larger boats, the Hallam Report increased the parking demand rate for berths in Table 3.3 by 20%, increasing the parking demand potential of the marinas from 49 cars to 56 cars. This is still 19 spaces less than the parking demand potential of the existing marinas (75 cars).

The Hallam Report then conducted a sensitivity test which revealed that the parking demand rate of berths would have to be 70% higher than the parking demand rates indicated by the surveys, to achieve a situation where the parking demand potential of the Rose Bay and Point Piper marinas following the proposed modifications is the same as the parking demand potential of the existing marinas.

On that basis, the Hallam Report concludes that it is very unlikely that the parking demand potential of the marinas following the proposed modifications will be higher than the parking demand potential of the existing marinas. On the basis of the available information, that conclusion appears to be correct.

### ***Traffic Implications***

In circumstances where the parking demand generated by the Rose Bay and Point Piper marinas following the proposed modifications to the boat storage facilities is unlikely to exceed the parking demand potential of the existing facilities, it can be reasonably concluded that the proposed modifications will not increase the traffic generation potential of the marinas.

In these circumstances, it can be concluded that the proposed modifications to the boat storage facilities at the Rose Bay and Point Piper marinas have no unacceptable traffic implications.

## 4. CONCLUSION

The conclusions of the Hallam Report are that:

1. The proposal is to remove most of the existing swing moorings controlled by Point Piper and Rose Bay marinas, to remove the existing mooring berths and to then construct new berths. The total number of berths will increase from 52 to 159, while the total number of swing moorings will reduce from 172 to 15. Overall, the total boats able to be accommodated at these two marinas will reduce by 50. It is anticipated that up to 15 private swing moorings will be allocated by NSW Maritime to the general public.
2. Extensive surveys have been undertaken of boat usage and car parking demand at these and other marinas. They indicate that boats on swing moorings are used more than boats in marina berths. Looking at car parking demands for different boat lengths, there is no clear relationship. While longer boats tend to have more people on them, a pattern of higher car occupancy for larger group sizes has been observed.
3. Based on average parking demand rates at Rose Bay Marina for weekend days in Summer, the existing and projected parking demand have been calculated. These show that the existing Summer weekend parking demand is some 75 cars for the two marinas and that with the proposed modifications, this number would reduce to about 50 cars.
4. The proposed modifications will allow longer boats to be stored at the marinas. It does not necessarily follow that all marina berths will have boats of the available maximum length. The provision of longer berths allows more flexibility in the allocation of berths. Based on the data available, we would not expect longer boats to have any more than a 20% additional demand for parking, compared with the boat lengths at present. For the future peak weekend parking demand to be as high as the existing, the parking rate for all new berths would have to be 70% higher than that currently occurring. This is highly unlikely to occur. We hence conclude that the parking implications of the proposal are likely to be positive, without any additional cars, and probably with fewer cars parked on the adjacent streets.
5. With no increase in car parking, the external traffic implications will be minimal.

On the information available the calculations set out in the Hallam Report, and these conclusions, appear to be correct.

It is of course possible that the operating characteristics of the Rose Bay and Point Piper Marinas, following the proposed modifications to the boat storage facilities, might not be entirely consistent with the trends indicated by the survey programme. However, the surveys which were conducted produced generally consistent results and there is no reason to believe

that the modified Rose Bay and Point Piper Marinas will have different operating characteristics to those of the marinas which were surveyed.

At worst, given the reduction in the overall number of boat storage facilities involved in the proposed modifications, it is difficult to anticipate that the traffic and parking generation potential of the Rose Bay and Point Piper Marinas, following the proposed modifications, will be greater than that of the marinas operating under the existing licences.

It follows that, at best there should be some improvement in traffic and parking conditions in the vicinity of the Rose Bay and Point Piper Marinas following the proposed modifications, and at worst there should be no change to the traffic and parking conditions.