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## Community Survey 2003

### A Study of Attitudes & Awareness of Residents in the Lake Macquarie Catchment

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& Catchment Coordinator

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## Executive Summary

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The research project saw 600 residents from the Lake Macquarie catchment area surveyed by telephone. Interviews were conducted in July 2003.

The survey sample can be broken up as follows:

- ◆ 55% female and 45% male.
- ◆ 38% aged 55 or over and 7% aged between 18 and 24.
- ◆ 35% retirees and pensioners and 27% engaged in full time work.
- ◆ 90% live in a separate house.

*The points below summarise the main findings of the research:*

- ◆ The community is generally positive in its perception of the Lake. When asked to give the current quality of Lake health a rating (1 being poor, 10 being excellent), the community gave a (mean score) of 6.4, a marginal increase on the result from the 2001 (6.24) and 2000 surveys (6.13).
- ◆ The community is also positive about the future of the Lake. When asked whether the state of the Lake would be better, worse or the same in five years time, 58% of people thought it would improve 17% said it would remain the same and 18% said it would get worse. These results are similar to the 2001 wave of the survey and an improvement in those recorded in 2000.
- ◆ Water movement in and out of Swansea Channel and drainage are considered the most important Lake health issues by the local community. This order is consistent with the 2000 and 2001 survey results.

# 1. Introduction

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The Living Lake Macquarie Survey 2003 was commissioned by The Office of the Lake Macquarie & Catchment Coordinator and prepared by FordComm Consulting. The study was a repeat of surveys carried out in April 2000 and October 2001.

This document presents the results of the telephone survey of 600 residents of the Lake Macquarie catchment area. The aims of the survey were to:

- ◆ Obtain information on the issues that concern local residents.
- ◆ Obtain information on community attitudes towards and perceptions about the local environment.
- ◆ Obtain information about peoples activities and impacts on the environment

The methods of data collection and analysis are described in Section 2, and the results are presented in Section 3.

## 2. Methods Of Data Collection And Analysis

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### 2.1 Data Collection

The following methods were used to collect data from households in Lake Macquarie.

**Questionnaire development:**

The questionnaire used was developed by Ford Communications Pty Ltd. A copy is provided in Appendix I.

**Survey technique:**

Telephone interviews.

**Period:**

Interviews were conducted between 14 - 29 July 2003.

**Survey area:**

Residents living in the Lake Macquarie Catchment (LMC) area were surveyed. A representative suburb listing is provided in Table 1 on the following page.

**Sample selection:**

The sample of households contacted was derived from a random selection of household telephone numbers from the Telstra White Pages directory for postcodes and place names in the LMC area. On the first contact with the selected household the person answering the telephone was asked to confirm that the residence was in the LMC area. If the residence was not in the area the interview did not proceed, and a replacement telephone number was randomly selected.

**Respondent selection:**

The person living in the household aged 18 or over who had the next birthday was selected as the respondent for the household contacted. If the selected household did not answer, the number was engaged, or the required respondent was not available, up to five calls back were made. Where this procedure did not result in a successful interview a replacement telephone number was randomly selected.

**Final sample size:**

600 completed interviews.

**Sample variation:** A sample size of 600 yields a sample variation of  $\pm 5.8$  per cent at a confidence level of 95 per cent, given a response probability of 50 per cent.

In practical terms, this means that if 50 per cent of the randomly selected respondents in the sample answered "yes" in a yes/no question (the result with the highest possible variation in statistical accuracy), the true proportion of the population who would answer "yes" (if all were surveyed) would lie between 44.2 per cent and 55.8 per cent, 95 times out of 100.

**Table 1: Suburbs in the Lake Macquarie Catchment**

Cameron Park	Pelican	Buttaba
West Wallsend	Little Pelican	Arcadia Vale
Holmesville	Swansea	Wangi Wangi
Barnsley	Cams Wharf	Myuna Bay
Edgeworth	Croudace Bay	Eraring
Killingsworth	Valentine	Dora Creek
Glendale	Eleebana	Cooranbong
Argenton	Warners Bay	Martinsville
Cardiff Heights	Lakelands	Morriset
Cardiff	Speers Point	Mandalong
Garden Suburb	Teralba	Bonnells Bay
Macquarie Hills	Wakefield	Yarrowonga Park
Cardiff South	Booragul	Balcolyn
Hillsborough	Marmong Point	Silverwater
Boolaroo	Woodrising	Sunshine
Kotara South	Bolton Point	Mirrabooka
Highfields	Fennell Bay	Brightwaters
Charlestown	Fassifern	Windermere Park
Kahibah	Ryhope	Morriset Park
Whitebridge	Freemans Waterhole	Wye Point
Gateshead	Blackalls Park	Wye
Mount Hutton	Awaba	Nords Wharf
Windale	Toronto	Summerland Point
Tingira Heights	Carey Bay	Mannering Park
Floraville	Coal Point	Gwandaln
Belmont North	Kilaben Bay	Chain Valley Bay
Belmont	Rathmines	Point Wolstoncroft
Belmont South	Fishing Point	Crangan Bay
Marks Point	Balmoral	Doyalson North

## **2.2 Structure of the survey sample**

In summary the survey sample comprised of:

- ◆ Approximately 55 per cent of respondents were female and 45 percent male.
- ◆ Persons aged 55 or over accounted for about 38 per cent of respondents, with seven per cent of respondents aged between 18 and 24.
- ◆ Retirees and pensioners accounted for 35 per cent of respondents while 27 per cent were engaged in full time work
- ◆ Approximately 90 per cent of respondents live in a separate house.

## **2.3 Cross-tabulations**

Results relating to the attitudes and perceptions of residents about the local environment of the Lake Macquarie catchment area were cross-tabulated according to:

- ◆ Age
- ◆ Sex
- ◆ 2000 and 2001 results

## 2.4 Presentation of the results in Section 3

The significant results by age and gender are presented in tabulated form in Appendix II for each consecutive question in the survey.

Open-ended responses were coded under representative headings to enable easier analysis. The *verbatim* responses to the open-ended questions are provided in Appendix III.

## 2.5 Average perception and satisfaction ratings

Respondents were requested to use the two scales to rate their satisfaction with or perception of environmental outcomes or amenities. One scale involved the ranking of issues on a scale of:

Poor    2    3    4    5    6    7    8    9    Excellent

Average scores were calculated by assigning the values of 1 to 'Poor' and 10 to 'Excellent', with the other ratings coinciding with their assigned numbers. 'Don't know' responses were excluded from the calculation.

The other scale involved asking respondents to rank against the scale:

Strongly disagree	(1)
Disagree	(2)
Neither agree nor disagree	(3)
Agree	(4)
Strongly agree	(5)

Average agreement ratings were calculated by assigning the value shown in parentheses next to the respective ratings, with all 'don't know' responses excluded from the calculation.

### 3. Results

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The following commentary gives the findings of the 2003 community survey compared with results obtained in earlier waves of the survey. Detailed results are included in this report as Appendix II (only the statistically “significant” results are presented).

For each section a commentary is provided on the general results obtained in the survey in 2003. Significant results for each of the sub-groups of the population are also presented, and these segments are based on the gender and age of respondents.

#### 3.1 General Issues of Concern to Local Residents

In an unprompted question respondents were asked to suggest the three (3) most important issues facing their local community. The main issues mentioned were:

- ◆ Maintain/improve roads & road system (24.4% of respondents)
- ◆ Crime (15% of respondents)
- ◆ General environment (13.5% of respondents)
- ◆ Lake, beach and waterways (13% of respondents)

Approximately 17% of respondents did not provide an answer to this question.

These issues have consistently been rated as most important by residents in the catchment over the three years that the survey has been conducted.

The results are shown in the table below:

<b>Response</b>	<b>Percent</b>
Maintain/improve roads & road systems	24.4%
No answer	16.6%
Crime	15.0%
General environment	13.5%
Lake, beach, waterways	13.0%
Maintain & improve public transport and supporting infrastructure	9.6%
Education facilities	9.4%
Control/reduce residential & other development	9.4%
Employment	7.5%
Health services	7.4%

**\*\* Note: Only the top 10 issues are recorded in this abbreviated table. Respondents were asked to list their top three issues in order of importance. Hence, the above percentages do not add to 100%.**

### 3.2 Attitudes Towards Changes in the Quality of the Environment

#### Rating of the environment

Respondents in the survey rated the current overall environment of Lake Macquarie at 6.4 on a scale of 1 to 10 where 1 was equal to poor and 10 was equal to excellent. This compares with 6.2 in 2001 and 6.1 in 2000.

#### Report

##### RATING OF OVERALL LAKE MACQUARIE ENVIRONM

YEAR	Mean	Std. Deviation	N
2000	6.13	1.67	597
2001	6.24	1.50	637
2003	6.40	1.32	582
Total	6.26	1.51	1816

These results can also be expressed in a different way, namely that 18% of respondents gave the environment a score of 8 and above, while 74% gave a score between 5 and 7 out of 10, as shown in the table below.

##### RATING OF OVERALL LAKE MACQUARIE ENVIRONMENT \* YEAR Crosstabulation

% within YEAR

	YEAR			Total
	2000	2001	2003	
RATING OF OVERALL LAKE MACQUARIE ENVIRONMENT Under 5	12.2%	9.0%	8.1%	9.8%
5-7	69.5%	71.4%	74.1%	71.6%
8-10	18.3%	19.7%	17.9%	18.6%
Total	100.0%	100.0%	100.0%	100.0%

There has been an upward trend in the results between the 2000, 2001 and 2003 surveys and generally, respondents appear to be more positive in their overall rating of the Lake.

It continues to be the trend for older respondents to be more positive in their rating. For example, 28% of respondents aged 65+ gave the Lake a rating of 8-10 as compared to 9% of respondents in the 18-24 age group.

#### Changes in the environment over the past 5 years

The following table shows the community's attitudes towards changes in the quality of the environment over the past five years in 2000, 2001 and 2003.

**QUALITY OF ENVIRONMENT IN LAKE MACQUARIE AREA OVER PAST 5 YRS \* YEAR Crosstabulation**

% within YEAR

		YEAR			Total
		2000	2001	2003	
QUALITY OF ENVIRONMENT IN LAKE MACQUARIE AREA OVER PAST 5 YRS	Got better	41.7%	46.2%	49.7%	45.9%
	Got worse	26.2%	19.9%	15.8%	20.6%
	Remained the same	27.9%	31.5%	28.5%	29.4%
	Don't know/cannot say	4.2%	2.4%	5.9%	4.1%
Total		100.0%	100.0%	100.0%	100.0%

Respondents were generally positive in their outlook on changes in the environment in the past five years. In 2003 half of the survey sample (50%) believed the environment had improved, with only 16% believing the health of the environment had deteriorated.

In comparison with the 2000 survey results, the response was clearly more positive. This year's survey found that 78% of respondents felt the environment had improved or remained the same, while in 2000 that figure was approximately 70%.

The other significant statistic is in comparing the outlook between age categories. Again, the younger age grouping (18-24) appears to be more pessimistic about changes in the Lake, with 25% responding that the environment had improved, as compared to 65% of people in the 55-64 years age group.

## Changes in the Environment Over the Next Five Years

The following table shows the community's attitudes towards anticipated changes in the quality of the Lake environment over the next five years.

**QUALITY OF ENVIRONMENT IN LAKE MACQUARIE AREA OVER NEXT 5 YRS \* YEAR Crosstabulation**

% within YEAR

		YEAR			Total
		2000	2001	2003	
QUALITY OF ENVIRONMENT IN LAKE MACQUARIE AREA OVER NEXT 5 YRS	Get better	48.0%	56.6%	58.2%	54.3%
	Get worse	22.9%	21.3%	17.9%	20.7%
	Remain the same	21.9%	17.9%	16.6%	18.8%
	Don't know/cannot say	7.2%	4.2%	7.3%	6.2%
Total		100.0%	100.0%	100.0%	100.0%

The majority of people thought the quality of the environment in Lake Macquarie would improve or remain the same over the next five years. A large proportion (58%) said the environment would get better while another 17% thought it would stay the same.

This is a significant increase on the results from the original survey (2000), where only 48% of people thought the environment would improve and continues the consistent increase in the positive outlook of respondents in relation to the future of the Lake.

While the whole sample was positive, once again, the older age groupings appeared to be more positive about the future of the Lake, particularly in the 55-64 years age category (65%). This compared to 41% in the 18-24 age group.

### 3.3 Importance of Various Environmental Issues

In an open-ended question respondents were also asked to identify the most important environmental issues facing Lake Macquarie and the surrounding area. The major issues mentioned were:

- ◆ Lake, beach, waterways (mentioned by 39.8% of respondents)
- ◆ General environment (23.7%)
- ◆ Preserve & restore natural environment (19.4%)
- ◆ Clean up weeds and other pollution (19.3%)
- ◆ Garbage, litter, dumping (17.8%)
- ◆ Improve water supply and quality (17.4%)

Approximately 9% of respondents did not provide an answer to this question. The detailed results are shown in the table below:

Response	Percent
Lake, beach, waterways	39.8%
General environment	23.7%
Preserve & restore natural environment	19.4%
Clean up weeds & other pollution	19.3%
Garbage, litter and dumping	17.8%
Improve water supply and quality	17.4%
Industrial pollution	12.0%
Control/reduce residential & other development	11.2%
Commercial fishing	8.9%
No answer	8.9%

**\*\* Note: Only the top ten issues are included in the table. Respondents were asked to list their top three issues in order of importance. Hence, the above percentages do not add to 100%.**

Due to the open ended nature of the question a direct comparison between the results of the three waves of the survey is difficult.

Respondents were also presented with a list of environmental issues and asked how important they are to maintaining the environmental quality of Lake Macquarie. Although all of the issues were seen as important by respondents, the most important issues were water movement between the Lake and the ocean in Swansea Channel (9.1 out of 10) and drainage systems (8.8).

#### Report

YEAR		IMPORTANCE OF SEAGRASSES	IMPORTANCE OF URBAN DEVELOPMENT	IMPORTANCE OF DRAINAGE SYSTEMS	IMPORTANCE OF VEGETATION AROUND THE LAKE FORESHORES	IMPORTANCE OF SEAWALLS AROUND THE LAKE FORESHORES	IMPORTANCE OF WATER MOVEMENT BETWEEN LAKE AND OCEAN IN SWANSEA CHANNEL
2000	Mean	7.62	6.94	8.78	8.32	7.08	8.66
	Std. Deviation	2.27	2.61	1.69	1.84	2.48	2.02
	N	541	581	592	593	569	558
2001	Mean	8.28	7.44	9.02	8.44	7.08	8.73
	Std. Deviation	2.00	2.43	1.45	1.84	2.62	1.78
	N	587	615	626	630	584	585
2003	Mean	8.23	7.30	8.76	8.49	7.36	9.05
	Std. Deviation	1.92	2.39	1.58	1.68	2.36	1.53
	N	515	555	578	582	533	548
Total	Mean	8.05	7.23	8.86	8.41	7.17	8.81
	Std. Deviation	2.09	2.48	1.58	1.79	2.50	1.80
	N	1644	1752	1796	1805	1686	1691

Looking at the results in a slightly different way, the proportion of people who rated the issue between 8-10 out of 10 is summarized below:

- ◆ seagrasses (71%)
- ◆ urban development (56%)
- ◆ drainage systems (82%)
- ◆ vegetation around the lake foreshores (75%)
- ◆ seawalls around the lake foreshores (56%)
- ◆ water movement between the lake and ocean in Swansea Channel (89%)

#### IMPORTANCE OF SEAGRASSES \* YEAR Crosstabulation

% within YEAR

		YEAR			Total
		2000	2001	2003	
IMPORTANCE OF SEAGRASSES	Under 5	8.5%	3.6%	3.7%	5.2%
	5-7	30.5%	22.7%	25.8%	26.2%
	8-10	61.0%	73.8%	70.5%	68.6%
Total		100.0%	100.0%	100.0%	100.0%

#### IMPORTANCE OF URBAN DEVELOPMENT \* YEAR Crosstabulation

% within YEAR

		YEAR			Total
		2000	2001	2003	
IMPORTANCE OF URBAN DEVELOPMENT	Under 5	16.2%	11.9%	11.0%	13.0%
	5-7	31.0%	29.5%	33.5%	31.3%
	8-10	52.8%	58.6%	55.5%	55.7%
Total		100.0%	100.0%	100.0%	100.0%

#### IMPORTANCE OF DRAINAGE SYSTEMS \* YEAR Crosstabulation

% within YEAR

		YEAR			Total
		2000	2001	2003	
IMPORTANCE OF DRAINAGE SYSTEMS	Under 5	3.2%	1.4%	2.2%	2.3%
	5-7	12.8%	11.2%	16.1%	13.3%
	8-10	84.0%	87.4%	81.7%	84.4%
Total		100.0%	100.0%	100.0%	100.0%

**IMPORTANCE OF VEGETATION AROUND THE LAKE FORESHORES \* YEAR  
Crosstabulation**

% within YEAR

		YEAR			Total
		2000	2001	2003	
IMPORTANCE OF VEGETATION AROUND THE LAKE FORESHORES	Under 5	4.0%	4.0%	2.1%	3.4%
	5-7	19.2%	16.5%	22.7%	19.4%
	8-10	76.7%	79.5%	75.3%	77.2%
Total		100.0%	100.0%	100.0%	100.0%

**IMPORTANCE OF SEAWALLS AROUND THE LAKE FORESHORES \* YEAR  
Crosstabulation**

% within YEAR

		YEAR			Total
		2000	2001	2003	
IMPORTANCE OF SEAWALLS AROUND THE LAKE FORESHORES	Under 5	15.3%	15.9%	11.6%	14.4%
	5-7	31.5%	31.0%	32.5%	31.6%
	8-10	53.2%	53.1%	55.9%	54.0%
Total		100.0%	100.0%	100.0%	100.0%

**IMPORTANCE OF WATER MOVEMENT BETWEEN LAKE AND OCEAN IN SWANSEA CHANNEL \* YEAR Crosstabulation**

% within YEAR

		YEAR			Total
		2000	2001	2003	
IMPORTANCE OF WATER MOVEMENT BETWEEN LAKE AND OCEAN IN SWANSEA CHANNEL	Under 5	4.7%	2.2%	1.8%	2.9%
	5-7	13.8%	16.3%	9.7%	13.3%
	8-10	81.6%	81.5%	88.5%	83.8%
Total		100.0%	100.0%	100.0%	100.0%

### 3.4 Activities and Their Impacts on the Environment

One of the key figures in the 2000 survey was the 37% of respondents who did not see the connection between domestic activities and impacts on the Lake environment. As a result, this was emphasised in media materials and focussed on in the Living Lake Macquarie newsletter. The 2001 survey found this figure had increased marginally to 42%, but had decreased again in 2003 to 35%

The apparent increase in those who do not see the connection between domestic activities and Lake health should be seen in context with the progress made in other areas. For example, the increased importance the community is placing on

the health of the environment, in particular that of the Lake, beaches and waterways.

The results are tabled below:

**PERSONAL ACTIVITIES/ACTIONS DON'T HAVE AN IMPACT ON LAKE MACQUARIE ENVIRONMENT \*  
YEAR Crosstabulation**

% within YEAR

		YEAR			Total
		2000	2001	2003	
PERSONAL ACTIVITIES/ACTIONS DON'T HAVE AN IMPACT ON LAKE MACQUARIE ENVIRONMENT	Strongly disagree	22.8%	16.8%	16.6%	18.7%
	Disagree	31.4%	33.5%	31.5%	32.2%
	Neither	8.6%	6.6%	14.2%	9.7%
	Agree	21.5%	30.7%	25.7%	26.1%
	Strongly agree	15.1%	11.6%	9.1%	11.9%
	Don't know	.7%	.8%	2.9%	1.4%
Total		100.0%	100.0%	100.0%	100.0%

The younger age grouping (18-24) continue to responded very differently to their older counterparts. By comparison, the 18-24 age group recorded a 70% awareness of the link between domestic activity and the Lake environment, as against 37% for those aged over 65 years. This perhaps reflects the "generation gap" in thinking of domestic activity and the local environment.

The survey included a selection of questions relating to specific behavioural trends like the washing of cars, fertilising of lawns and gardens and the cleaning of driveways. These questions were designed to measure behaviour as opposed to attitudes. Behaviour was considered a better indicator of the effectiveness of past education programs and the messages conveyed to the community within the Lake Macquarie & Catchment Coordinator's program. Much of this education was aimed at reducing problems such as run-off into drainage systems.

### **Vehicle Washing**

Approximately 90% of respondents have access to a car or a motor cycle and these people were then asked how often they wash their vehicle and where they would normally wash it.

The following table shows the community's activities in terms of frequency for washing motor car and motor cycles, with 17% of respondents saying that they wash their vehicle once each week or more, and a further 45% saying once or twice each month. 3% of respondents suggest that they never wash their vehicle.

**FREQUENCY WASHING CAR/MOTORCYCLE \* YEAR Crosstabulation**

% within YEAR

		YEAR			Total
		2000	2001	2003	
FREQUENCY WASHING CAR/MOTORCYCLE	Never	3.8%	3.6%	3.3%	3.6%
	Once a week or more	20.9%	16.7%	16.5%	18.0%
	Once or twice a month	46.3%	50.9%	44.6%	47.4%
	Once or twice every 6 months	15.0%	17.0%	24.7%	18.8%
	Once or twice every 12 months	4.7%	5.7%	6.6%	5.6%
	Irregularly	9.3%	6.1%	4.4%	6.6%
Total		100.0%	100.0%	100.0%	100.0%

The following table shows the community's activities in terms of location for washing motor car and motor cycles, with 65% of respondents saying that they wash their vehicle on the lawn, and this has remained constant over the past three waves of the survey. A further 23% said on the street or driveway.

This reflects the high level of awareness built up by a range of community education programs over the years, both in relation to water conservation and stormwater run-off.

Respondents who never wash their vehicle are excluded from this question.

**WHERE DO YOU WASH IT \* YEAR Crosstabulation**

% within YEAR

		YEAR			Total
		2000	2001	2003	
WHERE DO YOU WASH IT	On the lawn	65.2%	65.0%	65.0%	65.1%
	On the street/driveway	23.7%	24.7%	23.3%	23.9%
	At a commercial car wash	9.2%	10.0%	9.5%	9.6%
	Carport	.4%	.2%	.9%	.5%
	Footpath	.4%	.2%		.2%
	Rain washes it	.4%			.1%
	On nature strip	.2%			.1%
	Varies	.2%			.1%
	Work	.4%		.7%	.4%
	Doesn't			.4%	.1%
	Boat Ramp			.2%	.1%
	Total		100.0%	100.0%	100.0%

## Maintaining Lawns, Gardens and Paths

About 95% of people contacted said they had a lawn or garden. Of these respondents, 49% said that they fertilise their lawn or garden.

The following table shows a comparison in the habits of respondents who fertilise their lawns or gardens over the three waves of the survey.

### FERTILISE LAWN/GARDEN \* YEAR Crosstabulation

% within YEAR

		YEAR			Total
		2000	2001	2003	
FERTILISE LAWN/GARDEN	Yes	44.9%	51.5%	48.5%	48.4%
	No	55.1%	48.5%	51.5%	51.6%
Total		100.0%	100.0%	100.0%	100.0%

### FREQUENCY FERTILISE LAWN/GARDEN \* YEAR Crosstabulation

% within YEAR

		YEAR			Total
		2000	2001	2003	
FREQUENCY FERTILISE LAWN/GARDEN	Never	4.7%	.3%	3.2%	2.6%
	Once a week or more	1.1%	1.6%		.9%
	Once or twice a month	5.8%	5.0%	3.6%	4.8%
	Once or twice every 6 months	25.6%	27.0%	17.8%	23.6%
	Once or twice every 12 months	44.8%	59.6%	61.9%	55.6%
	Irregularly	18.1%	6.6%	13.5%	12.4%
Total		100.0%	100.0%	100.0%	100.0%

The majority of people surveyed said that they fertilise their gardens once or twice every 12 months (62%).

In response to a question on methods of cleaning household pathways, the majority of those people surveyed said they used a broom (55%). A further 13% said they either used a blower or never cleaned them (17%). This left 15% of people who used a hose to clean their paths.

Generally, these results are fairly consistent with both the 2000 and 2001 surveys and the results for the three waves of the survey are summarised in the table below:

**METHOD USED TO CLEAN PATHS \* YEAR Crosstabulation**

% within YEAR

		YEAR			Total
		2000	2001	2003	
METHOD USED TO CLEAN PATHS	Sweep with a broom	54.5%	55.9%	55.3%	55.3%
	Hose	16.8%	17.6%	15.0%	16.5%
	Use a blower	6.9%	11.3%	12.5%	10.2%
	I don't clean them	21.5%	15.3%	16.8%	17.8%
	Other	.3%		.4%	.2%
Total		100.0%	100.0%	100.0%	100.0%

**3.5 Recreational Usage of Lake Macquarie**

There is only a small proportion (15%) of households in the Lake Macquarie catchment where there is no-one in the household that uses Lake Macquarie for recreational purposes. In 11% of households one person uses the Lake, in 29% of households there are two people, in 16% of households three people and in 29% of households four or more people.

For respondents involved in this survey the majority (51%) suggest that they use the Lake at least once each week and a further 28% of people suggest once or twice each month. Only 3% of people suggest that used the Lake once or twice every 12 months and a further 5% suggest that they use it irregularly.

The survey suggests that the local community still regularly base recreational activities around the Lake. This is particularly the case in the 18-24 age-grouping, where 62% of respondents claimed to use the Lake once a week or more. This high level of usage is generally consistent with the results from the 2001 and 2000 survey.

The following table breaks down the way in which people use the Lake. A more detailed table of results is provided in Appendix II.

<b>Activity</b>	<b>Irregularly</b>	<b>Never</b>	<b>Other</b>
<b>Recreational fishing</b>	3.7%	61.3%	35%
<b>Sailing</b>	3.1%	84.1%	12.8%
<b>Boating</b>	5.5%	54.8%	39.7%
<b>Swimming</b>	4.5%	60.4%	35.1%
<b>Windsurfing</b>	0.4%	97.3%	2.3%
<b>Cycling around the foreshore</b>	2.9%	64.1%	33%
<b>Walking along the foreshore</b>	3.5%	6.6%	89.9%
<b>Picnicking on the foreshore</b>	8.2%	17.8%	74%

**Note: The 'Other' category includes once a week or more, once or twice a month, once or twice every six months and once or twice every 12 months.**

The most popular Lake related activities continue to be walking and picnicking. The least popular were windsurfing and sailing.

These results were consistent with the findings of the 2001 and 2000 survey report. Picnicking and walking around the Lake would suggest a familiarity with foreshore areas and this continues to be generally true in reference to the question which asked respondents to allocate a rating of importance to a list of key issues.

**Appendix I**  
**Questionnaire used in the Community Survey**

LAKE MACQUARIE CATCHMENT TELEPHONE SURVEY - July 2003

Telephone Number: \_\_\_\_\_ Questionnaire No: \_\_\_\_\_

Time of interview: \_\_\_\_\_ Date of interview: \_\_\_\_\_

Good morning/afternoon/evening. My name is ..... from FordComm Consulting in Newcastle. We are carrying out a study in the local area. As part of this study I need to select a person from your household to interview. May I speak to the person in your household who is at least 18 years of age and who has the next birthday. **[IF PERSON NOT HOME ARRANGE TIME TO CALL BACK]**

Q.a **[TO RESPONDENT]** I would like to ask your opinions about various issues affecting the local area. What is the postcode of the suburb or locality you live in?

\_\_\_\_\_

Q.b Which Council area do you live in (i.e. where do you pay your Council rates)?

- |   |                |   |            |
|---|----------------|---|------------|
| 1 | Lake Macquarie | 3 | Wyong      |
| 2 | Newcastle      | 4 | Don't know |

Q.c **[IF RESPONDENT STILL UNSURE OF COUNCIL AREA]** What is the name of your street or road? **[IF RESPONDENT DOES NOT LIVE IN CATCHMENT TERMINATE INTERVIEW]**

\_\_\_\_\_

Q.d The interview will take about 10 minutes. Is now a convenient time to do the interview?

- |   |   |
|---|---|
| 1 | Yes -----> Commence interview (Go to Q.1) |
| 2 | No -----> Go to Q.e                       |

Q.e Could I call back at a more convenient time?

- |   |                               |
|---|-------------------------------|
| 1 | Yes -----> Go to Q.f          |
| 2 | No -----> Terminate interview |

Q.f What time and day. Thank you. I will call back at \_\_\_\_\_ on \_\_\_\_\_.

Q.1 I'd like to ask you some general questions about the local area. What do you think are the three most important issues affecting your community?

**[RECORD ANSWER IN FULL]**

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

Q.2 Looking back, over the past five years do you think that the quality of the environment in Lake Macquarie area has .....?

**[READ OUT OPTIONS 1 TO 3 - CIRCLE ONE ANSWER ONLY]**

- |   |            |   |                       |
|---|------------|---|-----------------------|
| 1 | Got better | 3 | Remained the same     |
| 2 | Got worse  | 4 | Don't know/cannot say |

Q.3 Looking ahead, over the next five years do you think that the quality of the environment in Lake Macquarie area will .....? **[READ OUT OPTIONS 1 TO 3 - CIRCLE ONE ANSWER ONLY]**

- |   |            |   |                       |
|---|------------|---|-----------------------|
| 1 | Get better | 3 | Remain the same       |
| 2 | Get worse  | 4 | Don't know/cannot say |

Q.4 On a scale of 1 to 10 where 1=poor and 10=excellent, how would you rate the current overall environment of Lake Macquarie? **[CIRCLE ONE RESPONSE - CIRCLE 11 IF THE RESPONDENT CANNOT GIVE AN ANSWER]**

- 1 Poor
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 Excellent
- 11 Don't know

Q.5 On a scale of 1 to 5 where 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree and 5=strongly agree, what is your attitude towards the following statement? **[DON'T READ OUT DON'T KNOW BUT CIRCLE 6 IF THE RESPONDENT CANNOT GIVE AN ANSWER]**

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Don't Know
My activities and actions do not have an impact on the Lake Macquarie environment	1	2	3	4	5	6

Q.6 Now specifically thinking of environmental issues. What do you think are the three most important environmental issues affecting Lake Macquarie and the surrounding area, in order of importance i.e. from most to least important? **[RECORD ANSWER IN FULL]**

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_

Q.7 What actions would be most effective in solving each of these issues? **[READ OUT THE ANSWERS GIVEN IN Q.6 ABOVE AND RECORD ANSWERS IN FULL]**

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_

Q.8 And now some questions about specific environmental issues in Lake Macquarie. On a scale of 1 to 10 where 1=not important and 10=extremely important, how important are the following issues in maintaining the environmental quality of Lake Macquarie? [CIRCLE ONE RESPONSE FOR EACH ISSUE - CIRCLE 11 IF THE RESPONDENT CAN NOT GIVE AN ANSWER]

	Not Important										Extremely Important	Don't Know
	1	2	3	4	5	6	7	8	9	10	11	
Seagrasses	1	2	3	4	5	6	7	8	9	10	11	
Urban development	1	2	3	4	5	6	7	8	9	10	11	
Drainage systems	1	2	3	4	5	6	7	8	9	10	11	
Vegetation around the lake foreshores	1	2	3	4	5	6	7	8	9	10	11	
Seawalls around the lake foreshores	1	2	3	4	5	6	7	8	9	10	11	
Water movement between the lake and ocean in Swansea Channel	1	2	3	4	5	6	7	8	9	10	11	

Q.9 Do you own or have access to a car or motorcycle?

- 1 Yes
- 2 No → Go to Q.12

Q.10 How often do you USUALLY wash it?

[DO NOT READ OUT ANSWERS - ALLOW ONE ANSWER ONLY]

- 1 Never → Go to Q.12
- 2 Once a week or more
- 3 Once or twice a month
- 4 Once or twice every 6 months
- 5 Once or twice every 12 months
- 6 Irregularly

Q.11 Where do you USUALLY wash it? [ALLOW ONE ANSWER ONLY]

- 1 On the lawn
- 2 On the street/driveway
- 3 At a commercial car wash
- 4 Other (please specify where) \_\_\_\_\_

Q.12 Do you have a lawn or garden?

- 1 Yes
- 2 No → Go to Q.16a

Q.13 Do you fertilise your lawn or garden?

- 1 Yes
- 2 No → Go to Q.15

Q.14 How often [do you USUALLY fertilise your lawn or garden]? **[DO NOT READ OUT ANSWERS - ALLOW ONE ANSWER ONLY]**

- 1 Never → Go to Q.15
- 2 Once a week or more
- 3 Once or twice a month
- 4 Once or twice every 6 months
- 5 Once or twice every 12 months
- 6 Irregularly

Q.15 How do you clean the paths in your garden? **[DO NOT READ OUT ANSWERS - ALLOW ONE ANSWER ONLY]**

- 1 Sweep with a broom
- 2 Hose
- 3 Use a blower
- 4 I don't clean them

**And now some questions on usage of the Lake**

Q.16a How many members of your household, including yourself, use Lake Macquarie (i.e the lake itself) for recreational activities, including walking along the foreshore and using the cycleways?

- 1 None → Go to Q.18
- 2 One
- 3 Two
- 4 Three
- 5 Four or more

Q.16b How often do you personally use Lake Macquarie for recreational activities, including walking along the foreshore and using the cycleways?

- 1 Never → Go to Q.18
- 2 Once a week or more
- 3 Once or twice a month
- 4 Once or twice every 6 months
- 5 Once or twice every 12 months
- 6 Irregularly

Q.17 Specifically, how often have you been involved in the following activities in the past 12 months? **[READ OUT ACTIVITIES AND CIRCLE ONE ANSWER ONLY]**

	Once a week	Once or twice week or more	Once/twice a month	Once/twice every 6 months	Irregularly every 12 months	Never
Recreational fishing	1	2	3	4	5	6
Sailing	1	2	3	4	5	6
Boating	1	2	3	4	5	6
Swimming	1	2	3	4	5	6
Windsurfing	1	2	3	4	5	6
Cycling around the foreshore	1	2	3	4	5	6
Walking along the foreshore	1	2	3	4	5	6
Picnicing on the foreshore	1	2	3	4	5	6

Q.18 Do you have any other comments about environmental issues affecting Lake Macquarie? **[RECORD ANSWER]**

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Q.19 Should further research be conducted in group discussions about the Lake Macquarie environment and other issues in the future, would you be willing to take part? The meetings would last about 2 hours and refreshments are provided.

- 1 Yes
- 2 No → Go to Q.21

Q.20 Could I please have your name, address and postcode so that we can contact you in the future about discussion meetings? **[GET DETAILS OF PARTICIPANT]**

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ POSTCODE: \_\_\_\_\_

**And now a few questions to help classify your answers**

Q.21 What is the gender of the respondent? **[CIRCLE ONE ANSWER ONLY]**

- 1 Male
- 2 Female

Q.22 What is your age? \_\_\_\_\_

Q.23 What is your work status? **[CIRCLE ONE ANSWER ONLY]**

- 1 Full-time
- 2 Part-time/casual
- 3 Unemployed
- 4 Home duties
- 5 Student
- 6 Retired/Pension

Q.24 What type of dwelling do you live in?  
**[DO NOT READ OUT ANSWERS - ALLOW ONE ANSWER ONLY]**

- 1 Separate house
- 2 Townhouse
- 3 Flat/unit
- 4 Other (please specify) \_\_\_\_\_

Q.24a How many years have you resided in the Lake Macquarie area? \_\_\_\_\_

Q.25 How many people aged **18 years and over** are there living **permanently** in your household, **including yourself**? \_\_\_\_\_

Q.26 This space is for any additional comments made by the person or any comments you would like to make about the interview? **[RECORD ANSWER]**

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Thank you for your co-operation today

## **Appendix II**

### **Detailed significant results of the 2003 Community Survey**

**QUALITY OF ENVIRONMENT IN LAKE MACQUARIE AREA OVER PAST 5 YRS \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
QUALITY OF ENVIRONMENT IN LAKE MACQUARIE AREA OVER PAST 5 YRS	Got better	25.4%	46.6%	50.6%	64.5%	57.0%	49.5%
	Got worse	19.7%	13.0%	21.4%	9.2%	14.0%	15.9%
	Remained the same	45.1%	31.7%	25.6%	19.7%	24.6%	28.6%
	Don't know/cannot say	9.9%	8.7%	2.4%	6.6%	4.4%	5.9%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**QUALITY OF ENVIRONMENT IN LAKE MACQUARIE AREA OVER NEXT 5 YRS \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
QUALITY OF ENVIRONMENT IN LAKE MACQUARIE AREA OVER NEXT 5 YRS	Get better	41.4%	59.6%	59.4%	64.5%	60.5%	58.2%
	Get worse	31.4%	14.3%	21.2%	13.2%	13.2%	17.9%
	Remain the same	20.0%	21.1%	14.1%	13.2%	14.0%	16.6%
	Don't know/cannot say	7.1%	5.0%	5.3%	9.2%	12.3%	7.3%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**RATING OF OVERALL LAKE MACQUARIE ENVIRONMENT \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
RATING OF OVERALL LAKE MACQUARIE ENVIRONMENT	Under 5	1.4%	7.6%	12.9%	6.6%	6.4%	8.1%
	5-7	90.1%	77.7%	71.8%	67.1%	66.1%	73.9%
	8-10	8.5%	14.6%	15.3%	26.3%	27.5%	18.0%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**ACTIVITIES/ACTIONS DON'T HAVE AN IMPACT ON LAKE MACQUARIE ENVIRONMENT \* AGE Cross**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
PERSONAL ACTIVITIES/ACTIONS DON'T HAVE AN IMPACT ON LAKE MACQUARIE ENVIRONMENT	Strongly agree	26.8%	13.0%	18.8%	17.1%	12.3%	16.7%
	Disagree	43.7%	30.4%	32.9%	27.6%	24.6%	31.3%
	Neither	5.6%	19.3%	14.7%	11.8%	12.3%	14.0%
	Agree	14.1%	26.1%	20.0%	31.6%	36.8%	25.7%
	Strongly agree	7.0%	8.1%	11.8%	9.2%	8.8%	9.3%
	Don't know	2.8%	3.1%	1.8%	2.6%	5.3%	3.0%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**IMPORTANCE OF SEAGRASSES \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
IMPORTANCE OF SEAGRASSES	Under 5	8.3%	6.3%	3.4%		1.0%	3.9%
	5-7	26.7%	31.3%	26.7%	21.4%	17.7%	25.6%
	8-10	65.0%	62.5%	69.9%	78.6%	81.3%	70.5%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**IMPORTANCE OF URBAN DEVELOPMENT \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
IMPORTANCE OF URBAN DEVELOPMENT	Under 5	12.3%	14.1%	9.4%	8.0%	10.5%	11.0%
	5-7	53.8%	37.6%	24.4%	25.3%	34.3%	33.4%
	8-10	33.8%	48.3%	66.3%	66.7%	55.2%	55.6%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**IMPORTANCE OF DRAINAGE SYSTEMS \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
IMPORTANCE OF DRAINAGE SYSTEMS	Under 5		2.5%	2.4%	1.3%	2.8%	2.1%
	5-7	30.9%	20.4%	9.0%	9.2%	15.6%	15.9%
	8-10	69.1%	77.1%	88.6%	89.5%	81.7%	82.0%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**IMPORTANCE OF SEAWALLS AROUND THE LAKE FORESHORES \* GENDER Crosstabulation**

% within GENDER

		GENDER		Total
		Male	Female	
IMPORTANCE OF SEAWALLS AROUND THE LAKE FORESHORES	Under 5	16.7%	6.4%	11.6%
	5-7	30.5%	34.5%	32.5%
	8-10	52.8%	59.1%	55.9%
Total		100.0%	100.0%	100.0%

**IMPORTANCE OF SEAWALLS AROUND THE LAKE FORESHORES \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
IMPORTANCE OF SEAWALLS AROUND THE LAKE FORESHORES	Under 5	6.0%	7.3%	11.9%	13.0%	21.3%	11.7%
	5-7	53.7%	29.8%	29.1%	30.4%	28.7%	32.5%
	8-10	40.3%	62.9%	58.9%	56.5%	50.0%	55.8%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**IMPORTANCE OF WATER MOVEMENT BETWEEN LAKE AND OCEAN IN SWANSEA CHANNEL \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
IMPORTANCE OF WATER MOVEMENT BETWEEN LAKE AND OCEAN IN SWANSEA CHANNEL	Under 5	2.9%	1.3%	1.3%	2.7%	1.9%	1.8%
	5-7	18.8%	12.8%	5.2%	2.7%	10.6%	9.7%
	8-10	78.3%	85.9%	93.5%	94.5%	87.5%	88.5%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**FREQUENCY WASHING CAR/MOTORCYCLE \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
FREQUENCY WASHING CAR/MOTORCYCLE	Never	1.5%	3.3%	3.7%	1.4%	5.2%	3.3%
	Once a week or more	24.2%	18.7%	18.6%	11.0%	7.2%	16.3%
	Once or twice a month	39.4%	43.3%	37.9%	57.5%	52.6%	44.8%
	Once or twice every 6 months	34.8%	22.0%	24.2%	24.7%	22.7%	24.7%
	Once or twice every 12 months		8.7%	9.3%	2.7%	6.2%	6.6%
	Irregularly		4.0%	6.2%	2.7%	6.2%	4.4%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**FERTILISE LAWN/GARDEN \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
FERTILISE LAWN/GARDEN	Yes	38.8%	39.4%	50.0%	67.1%	52.3%	48.5%
	No	61.2%	60.6%	50.0%	32.9%	47.7%	51.5%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**METHOD USED TO CLEAN PATHS \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
METHOD USED TO CLEAN PATHS	Sweep with a broom	62.7%	50.7%	54.7%	52.8%	59.2%	55.1%
	Hose	11.9%	17.1%	14.9%	18.1%	11.7%	15.0%
	Use a blower		13.2%	17.4%	13.9%	11.7%	12.6%
	I don't clean them	22.4%	19.1%	13.0%	15.3%	17.5%	16.9%
	Other	3.0%					.4%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**W MANY HOUSEHOLD MEMBERS USE LAKE MACQUARIE FOR RECREATIO  
GENDER Crosstabulation**

% within GENDER

		GENDER		Total
		Male	Female	
HOW MANY HOUSEHOLD MEMBERS USE LAKE MACQUARIE FOR RECREATION	None	13.5%	17.7%	15.7%
	One	9.4%	11.7%	10.6%
	Two	33.7%	23.7%	28.6%
	Three	13.2%	19.1%	16.2%
	Four or more	30.2%	27.8%	29.0%
Total		100.0%	100.0%	100.0%

**HOW MANY HOUSEHOLD MEMBERS USE LAKE MACQUARIE FOR RECREATION \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
HOW MANY HOUSEHOLD MEMBERS USE LAKE MACQUARIE FOR RECREATION	None	14.3%	11.8%	13.5%	10.7%	29.2%	15.8%
	One	2.9%	9.3%	7.6%	9.3%	23.0%	10.7%
	Two	8.6%	24.2%	24.1%	44.0%	42.5%	28.4%
	Three	32.9%	16.8%	16.5%	17.3%	4.4%	16.3%
	Four or more	41.4%	37.9%	38.2%	18.7%	.9%	28.9%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**HOW OFTEN DOES RESPONDENT USE LAKE MACQUARIE FOR RECREATION \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
HOW OFTEN DOES RESPONDENT USE LAKE MACQUARIE FOR RECREATION	Never	3.3%	2.1%	2.0%	7.4%	12.6%	4.7%
	Once a week or more	62.3%	52.4%	51.7%	52.9%	41.4%	51.6%
	Once or twice a month	34.4%	32.2%	28.6%	22.1%	20.7%	28.1%
	Once or twice every 6 months		8.4%	6.8%	5.9%	12.6%	7.3%
	Once or twice every 12 months		2.8%	4.1%	4.4%	2.3%	3.0%
	Irregularly		2.1%	6.8%	7.4%	10.3%	5.3%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**FREQUENCY DOING RECREATIONAL FISHING \* GENDER Crosstabulation**

% within GENDER

		GENDER		Total
		Male	Female	
FREQUENCY DOING RECREATIONAL FISHING	Once a week or more	9.3%	2.4%	5.9%
	Once or twice a month	18.2%	5.3%	11.8%
	Once or twice every 6 months	7.3%	4.5%	5.9%
	Once or twice every 12 months	14.2%	9.3%	11.8%
	Irregularly	3.2%	4.1%	3.7%
	Never	47.8%	74.4%	61.1%
Total		100.0%	100.0%	100.0%

**FREQUENCY DOING BOATING \* GENDER Crosstabulation**

% within GENDER

		GENDER		Total
		Male	Female	
FREQUENCY DOING BOATING	Once a week or more	9.0%	3.3%	6.1%
	Once or twice a month	15.5%	11.1%	13.3%
	Once or twice every 6 months	14.3%	6.6%	10.4%
	Once or twice every 12 months	11.0%	8.6%	9.8%
	Irregularly	6.1%	4.9%	5.5%
	Never	44.1%	65.6%	54.8%
Total		100.0%	100.0%	100.0%

**FREQUENCY DOING WALKING ALONG THE FORESHORE \* GENDER Crosstabulation**

% within GENDER

		GENDER		Total
		Male	Female	
FREQUENCY DOING WALKING ALONG THE FORESHORE	Once a week or more	40.2%	52.9%	46.5%
	Once or twice a month	27.6%	28.1%	27.9%
	Once or twice every 6 months	12.2%	9.1%	10.7%
	Once or twice every 12 months	6.5%	3.3%	4.9%
	Irregularly	5.3%	1.7%	3.5%
	Never	8.1%	5.0%	6.6%
Total		100.0%	100.0%	100.0%

**FREQUENCY DOING RECREATIONAL FISHING \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
FREQUENCY DOING RECREATIONAL FISHING	Once a week or more		8.5%	6.1%	6.2%	3.8%	5.7%
	Once or twice a month	15.3%	15.5%	6.8%	10.8%	12.5%	11.8%
	Once or twice every 6 months	8.5%	5.6%	6.8%	3.1%	5.0%	5.9%
	Once or twice every 12 months	13.6%	10.6%	19.0%	9.2%	1.3%	11.8%
	Irregularly	6.8%	4.9%	3.4%	1.5%	2.5%	3.9%
	Never	55.9%	54.9%	57.8%	69.2%	75.0%	61.1%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**FREQUENCY DOING BOATING \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
FREQUENCY DOING BOATING	Once a week or more	5.0%	7.8%	6.8%	6.3%	1.3%	5.9%
	Once or twice a month	20.0%	12.1%	13.6%	12.7%	11.4%	13.5%
	Once or twice every 6 months	18.3%	12.1%	11.6%	1.6%	6.3%	10.4%
	Once or twice every 12 months	10.0%	10.6%	13.6%	7.9%	2.5%	9.8%
	Irregularly	11.7%	5.7%	6.1%	3.2%	2.5%	5.7%
	Never	35.0%	51.8%	48.3%	68.3%	75.9%	54.7%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**FREQUENCY DOING CYCLING AROUND THE FORESHORE \* AGE Crosstabulation**

% within AGE

		AGE					Total
		18-24	25-39	40-54	55-64	65 over	
FREQUENCY DOING CYCLING AROUND THE FORESHORE	Once a week or more		14.4%	5.5%	12.3%	5.0%	8.2%
	Once or twice a month	16.7%	16.5%	13.1%	9.2%	2.5%	12.3%
	Once or twice every 6 months	5.0%	16.5%	6.9%	1.5%	1.3%	7.8%
	Once or twice every 12 months	8.3%	1.4%	9.7%	3.1%	2.5%	5.1%
	Irregularly	3.3%	3.6%	4.1%		1.3%	2.9%
	Never	66.7%	47.5%	60.7%	73.8%	87.5%	63.8%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**FREQUENCY DOING PICNICKING ON THE FORESHORE \***

% within

		AG					Tota
		18-	25-	40-	55-	65	
FREQUEN	Once a week or		7.9	7.5	9.4	2.5	6.1
DOIN	Once or twice a	25.4	35.0	28.6	26.6	21.5	28.6
PICNICI	Once or twice						
ON	month	30.5	23.6	24.5	34.4	26.6	26.6
FORSHO	Once or twice every						
	month	5.1	10.7	18.4	14.1	11.4	12.9
	Irregularl						
	Neve	10.2	9.3	7.5	4.7	7.6	8.0
		28.8	13.6	13.6	10.9	30.4	17.8
Tota		100.0	100.0	100.0	100.0	100.0	100.0

## Means

### Report

RATING OF OVERALL LAKE MACQUARIE ENVIRONMENT

GENDER	Mean	Std. Deviation	N
Male	6.37	1.32	285
Female	6.43	1.32	297
Total	6.40	1.32	582

### Report

RATING OF OVERALL LAKE MACQUARIE ENVIRONMENT

AGE	Mean	Std. Deviation	N
18-24	6.56	.92	70
25-39	6.48	1.25	158
40-54	6.15	1.40	170
55-64	6.53	1.29	75
65 over	6.49	1.48	109
Total	6.40	1.32	582

**Report**

GENDER		IMPORTANCE OF SEAGRASSES	IMPORTANCE OF URBAN DEVELOPMENT	IMPORTANCE OF DRAINAGE SYSTEMS	IMPORTANCE OF VEGETATION AROUND THE LAKE FORESHORES	IMPORTANCE OF SEAWALLS AROUND THE LAKE FORESHORES	IMPORTANCE OF WATER MOVEMENT BETWEEN LAKE AND OCEAN IN SWANSEA CHANNEL
Male	Mean	8.30	7.37	8.77	8.47	6.95	9.12
	Std. Deviation	1.95	2.38	1.51	1.73	2.56	1.36
	N	258	269	282	285	269	275
Female	Mean	8.17	7.24	8.76	8.51	7.77	8.99
	Std. Deviation	1.88	2.39	1.64	1.64	2.07	1.68
	N	257	286	296	297	264	273
Total	Mean	8.23	7.30	8.76	8.49	7.36	9.05
	Std. Deviation	1.92	2.39	1.58	1.68	2.36	1.53
	N	515	555	578	582	533	548

**Report**

AGE		IMPORTANCE OF SEAGRASSES	IMPORTANCE OF URBAN DEVELOPMENT	IMPORTANCE OF DRAINAGE SYSTEMS	IMPORTANCE OF VEGETATION AROUND THE LAKE FORESHORES	IMPORTANCE OF SEAWALLS AROUND THE LAKE FORESHORES	IMPORTANCE OF WATER MOVEMENT BETWEEN LAKE AND OCEAN IN SWANSEA CHANNEL
18-24	Mean	7.99	6.51	8.44	8.66	7.14	8.65
	Std. Deviation	2.04	2.42	1.52	1.63	1.90	1.90
	N	60	66	68	69	66	69
25-39	Mean	7.76	6.99	8.46	8.48	7.72	8.79
	Std. Deviation	2.12	2.47	1.78	1.66	2.03	1.60
	N	144	150	157	160	151	149
40-54	Mean	8.34	7.78	9.04	8.39	7.42	9.28
	Std. Deviation	1.89	2.28	1.45	1.77	2.39	1.24
	N	146	160	167	168	151	153
55-64	Mean	8.61	7.91	9.05	9.12	7.38	9.41
	Std. Deviation	1.61	2.10	1.22	1.15	2.52	1.22
	N	70	74	75	75	70	73
65 over	Mean	8.66	7.09	8.79	8.13	6.84	9.11
	Std. Deviation	1.58	2.38	1.62	1.80	2.88	1.61
	N	96	106	110	109	95	104
Total	Mean	8.23	7.30	8.76	8.49	7.36	9.05
	Std. Deviation	1.92	2.39	1.58	1.68	2.36	1.53
	N	515	555	578	582	533	548