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Community Survey 2001

A Study of Attitudes & Awareness of Residents In the Lake Macquarie Catchment

Prepared for: The Office of the Lake Macquarie
& Catchment Coordinator

Prepared by: FordComm Consulting

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Executive Summary

The research project saw 602 residents from the Lake Macquarie catchment area surveyed by telephone. Interviews were conducted from Monday, 13 August to Tuesday, 21 August inclusive.

The survey sample can be broken up as follows:

1. 51% female, 49% male
2. 40% > 50 years, 12% 18-24 years
3. 77% had lived in the area for 10 years or more
4. 25% Retirees & pensioners, 36% full-time employed
5. 97% lived in Lake Macquarie LGA

The points below summarise the main findings of the research:

- ◆ The environmental health of Lake Macquarie is now level with crime as the most important general issue in the local community. In 2000, 10% of respondents rated the Lake in their top 3 list of key issues. In 2001 that figure has risen to 27%.
- ◆ The health of Lake Macquarie is by far the most important environmental issues in the eyes of the local community. 76% of respondents rated the Lake in their top 3 list of environmental issues. The next highest ranked was industrial pollution (29%).
- ◆ 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 6.24, a marginal increase on the result from the 2000 survey (6.13). The perception by young people (18-24) has risen considerably, with the mean up from 5.85 (2000) to 6.37.
- ◆ 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, 78% of people thought it would improve or remain the same. 56% of respondents said it would get better over that time.
- ◆ Drainage systems, water movement in and out of Swansea Channel and foreshore vegetation are considered the most important Lake health issues by the local community. This order is consistent with the 2000 survey results. However, on a scale of 1 (not very important) to 10 (very important), all five issues presented increased their rating compared to last year's study. For example, the rating for the importance of drainage systems to Lake health rose from 8.78 (2000) to 9.03. This reflects a growing awareness of the key issues effecting the health of the Lake.

1. Introduction

The Living Lake Macquarie Survey 2001 was commissioned by FordComm Consulting of the Hunter Valley Research Foundation (HVRF). The study was a repeat of the survey carried out in April 2000.

This document presents the results of the telephone survey of 602 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

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. The Hunter Valley Research Foundation (HVRF) made a number of small amendments to the survey in consultation with a representative of Ford Communications Pty Ltd. A copy is provided in Appendix I.

Survey technique: Computer assisted telephone interviews.

Period: Interviews were conducted from Monday, 13 August 2001 to Tuesday, 21 August 2001 inclusive.

Survey area: Residents living in the Lake Macquarie catchment (LMC) area was surveyed. This area was defined by Ford Communications Pty Ltd. A representative suburb listing is provided in Appendix II.

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 last 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 twelve calls back were made. Where this procedure did not result in a successful interview a replacement telephone number was randomly selected.

Final sample size: 602 completed interviews. Figures provided by ABS indicates that there are a total of 65,119 households ('occupied private dwellings') in the LMC area. The total population at the time was 178,735.

Sample variation: A sample size of 602 yields a sample variation of ± 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.

Response rates: Of the households contacted which were *eligible* to participate in the survey, interviews were completed with 95 per cent. Details of all telephone contacts are provided in the appendix.

Ineligible	No.	No. as % of total
Call back - exhausted attempts	19	1.50%
No answer/engaged Respondent	68	5.50%
unsuitable/unavailable	113	9.10%
Answering machine	32	2.60%
Business number	10	0.80%
Disconnected number	130	10.40%
Fax/modem	14	1.10%
Outside region	0	0%
Total ineligible	386	31%

Eligible	No.	No. as % of total	No. as % of eligible
-----------------	------------	--------------------------	-----------------------------

Completed interviews	602	48.20%	70.60%
Refusal	243	19.50%	28.60%
Terminated	7	0.60%	0.80%
Total eligible	851		

Eligible contacts as a proportion of `legitimate' contacts (total less business, disconnected and fax numbers, and people outside the region).

Total (eligible + ineligible)	1237	100%
Contact rate		70.60%

2.2 Structure of the survey sample

Details concerning the structure of the survey sample are presented in Appendix III. In summary, it comprised of:

- ◆ Approximately 51 per cent of respondents were female and 49 percent male.
- ◆ Persons aged 50 or over accounted for 40 per cent of respondents, with 12 per cent of respondents aged between 18 and 24.
- ◆ Persons who had lived in the area for ten years or more made up 77 per cent of the sample.
- ◆ Retirees and pensioners (25 per cent of respondents) or persons engaged in full time (36 per cent).
- ◆ Approximately 97 per cent of respondents lived in the Lake Macquarie Council area.

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

2.4 Statistical significance

No tests of statistical significance to determine differences in responses between the different 'types' of respondents were undertaken.

2.5 Presentation of the results in Section 3

The results are presented in tabulated form for each consecutive question in the survey. Frequencies and means are calculated and presented by gender and age. Open-ended responses were coded under representative headings to enable easier analysis. The *verbatim* responses to the open-ended questions are provided in Appendix VI.

2.6 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

The following commentary gives the findings of the community survey. Detailed results are included in this report as Appendix II (only the statistically "significant" results are presented). General comments made by respondents are included in Appendix III.

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

3.1 Community Newsletter Circulation

Respondents were asked if they could recall receiving a copy of the Living Lake Macquarie Newsletter, a free publication circulated as unaddressed mail to 74,000 homes within the catchment.

There have been three editions of the newsletter published since April 2000, with the most recent issue distributed four (4) months before the survey in April 2001. Considering the amount of unaddressed mail received by households on a weekly basis, a recall rate of 30.5% after four months is an encouraging statistic. The results were:

- ◆ Yes 30.5%
- ◆ No 69.5%

3.2 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:

- ◆ Crime (27.3% of respondents)
- ◆ Lake, beach, waterways (27.1%)
- ◆ Maintain/improve roads & road system (17%)

11% of respondents did not provide an answer to this question.

Lake, beach & waterways recorded a 17% increase and overtook roads & road systems in the ranking of importance. The state of the lake, beaches and waterways in the catchment is now considered equal with crime as the most important issue facing the local community. This increase in concern can be

directly related to an increase in awareness of the key environmental issues facing the Lake.

The results are shown in the table below:

Response	Percent
Crime	27.3%
Lake, beach, waterways	27.1%
Maintain/improve roads & road systems	17.0%
General Environment	13.5%
More facilities/activities for youth & children	11.4%
No answer	11%
Employment	10.9%
Control/reduce residential & other development	10.9%
Maintain/improve public transport & supporting infrastructure	10.6%
More police	7.9%

**** 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%.**

3.3 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 6.24 on a scale of 1 to 10 where 1 was equal to poor and 10 was equal to excellent. These results can also be expressed in a different way, namely that 19.6% of respondents gave the environment a score of 8 and above, while 71.2% gave a score between 5 and 7 out of 10, as shown in the table below.

Rating of Overall Lake Macquarie Environment (Age Cross-tabulation)

% within age

	AGE					Total
	18-24	25-39	40-54	55-64	65+	
Don't Know			.6%		.5%	.3%
Under 5	7.1%	12.5%	9.9%	6.8%	4.5%	9%
5-7	78.6%	72%	71.6%	71.8%	63.9%	71.1%
8-10	14.3%	15.5%	17.9%	21.4%	31.1%	19.6%
Total	100%	100%	100%	100%	100%	100%

There are some noteworthy results between the 2000 and 2001 surveys. Generally, respondents appear to be more positive in their overall rating of the Lake. The perception by young people (18-24 age-group) in particular has improved in the last 12 months. In 2000, 15.3% of respondents in this age group gave the Lake a rating of less than 5. In 2001 this dropped by more than half to 7.1%.

It continues to be the trend for older respondents to be more positive in their rating. For example, 31% of respondents 65+ gave the Lake a rating of 8-10 as compared to 14.3% of respondents in the 18-24 age-group.

Females also continued to be more positive than their male counterparts in their perception of the Lake. Females gave the environment a higher mean score (6.39) than did males (6.08). However, this difference was less pronounced than it was in 2000, where the comparative figures were 6.4 (females), 5.9 (males).

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.

Quality of Environment in Lake Macquarie Area Over Past 5 Years (Age)

% within age

	AGE					Total
	18-24	25-39	40-54	55-64	65+	
Got better	33.6%	41.7%	50.9%	53.4%	48.6%	46.3%
Got worse	26.3%	23.2%	17.7%	18.7%	15.8%	19.9%
Remained the same	38.6%	31.7%	29.6%	26%	33.5%	31.5%
Don't know or can't say	1.5%	3.4%	1.8%	1.9%	2.1%	2.3%
Total	100%	100%	100%	100%	100%	100%

Respondents were generally positive in their outlook on changes in the environment in the past five years. Almost half of the survey sample (46.3%) believed the environment had improved, with only 19.9% 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 77.8% of respondents felt the

environment had improved or remained the same, while in 2000 that figure was 69.4%.

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 33.6% responding that the environment had improved, as compared to 53.4% (55-64). Those in the 40-54 & 55-64 age-groupings were particularly positive about changes over the last five years, with more than half of both believing the environment had got better during that period.

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 the Next Five Years (Age)

% within age

	AGE					Total
	18-24	25-39	40-54	55-64	65+	
Get better	53.1%	51.5%	60.8%	61.1%	56.3%	56.6%
Get worse	28.1%	27.7%	16.7%	18.6%	17.2%	21.3%
Remain the same	16.3%	19.5%	18.2%	15.7%	17.4%	17.9%
Don't know or can't say	2.5%	1.3%	4.3%	4.6%	9.1%	4.2%
Total	100%	100%	100%	100%	100%	100%

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 (56.6%) said the environment would get better while another 17.9% thought it would stay the same.

In comparison with the 2000 survey results, the outlook of respondents over the next five years was considerably more positive. While 47.8% of people thought the environment would improve in 2000, 56.6% responded this way in the 2001 survey. The percentage figure for those who believed the Lake environment would stay the same was relatively stable at approximately 22%.

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

40-54 (60.8%) & 55-64 (61.1%) categories. This compared to 53.1% in the 18-24 age-group.

3.4 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 76.1% of respondents)
- ◆ Industrial pollution (28.9%)
- ◆ Garbage, litter, dumping (18.6%)
- ◆ Preserve & restore natural environment (14.7%)

Approximately 8% of respondents did not provide an answer to this question. The results are shown in the table below:

Response	Percent
Lake, beach, waterways	76.1%
Industrial pollution	28.9%
Garbage, litter and dumping	18.6%
Preserve & restore natural environment	14.7%
General environment	13.6%
Control/reduce residential & other development	13.5%
Commercial fishing	9.6%
Improve drainage & sewerage systems	9.3%
No answer	8%
Clean up weeds & other pollution	5.3%

**** 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 2000 & 2001 surveys is difficult. However, the 2000 survey found that rubbish & litter topped the list of environmental concerns at 21%. The 76.1% recorded against lake, beach & waterways in the 2001 survey is a major shift in results.

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 drainage systems (rated as 9.03

out of 10), water movement between the Lake and the ocean in Swansea Channel (8.74) and vegetation around the Lake foreshores (8.45). The less important issues were seagrass (8.27), urban development (7.45) and foreshore seawalls (7.09).

The order of importance allocated to each issues in 2001 was identical with the 2000 survey results. However, each issue was generally given a higher ranking than in 2000. This reflects the increased importance the local community has put on environmental issues within the catchment, and in particular those associated with the Lake, beaches and waterways.

3.5 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%.

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:

My activities and actions do not have an impact on the Lake Macquarie environment (Age)

% within age

	AGE					Total
	18-24	25-39	40-54	55-64	65+	
Strongly agree	4.9%	11.7%	12.9%	12.0%	13.2%	11.6%
Agree	21.4%	25.6%	31.1%	35.4%	40.6%	30.7%
Neither	8.6%	5.5%	6.5%	6.9%	6.9%	6.6%
Disagree	63.4%	32%	28.6%	34.2%	25.7%	33.5%
Strongly disagreed	1.6%	25.1%	19.8%	11.5%	11.4%	16.8%

The younger age-grouping (18-24) responded very differently to their older counterparts. By comparison, the 18-24 age-grouping recorded a 65%

awareness of the link between domestic activity and the Lake environment, as against 45.7% (55-64) and 37.1% (65+). This perhaps reflects the “generation gap” in thinking of domestic activity and the local environment. The attitudes in the older age-groupings appear to be less conducive to change, as the way in which they think of the environment is more firmly established than the 18-24 category.

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

Almost 96% of respondents said they owned or had access to a car or motorcycle.

The following table shows the community’s activities in terms of frequency for washing motor car and motor cycles, with 16.6% of respondents saying that they wash their vehicle once each week or more, and a further 51% saying once or twice each month. 3.6% of respondents suggest that they never wash their vehicle.

Frequency for washing motor car of motorcycle (Gender)

% within gender

	SEX		Total
	Male	Female	
Never	3.5%	3.8%	3.6%
Once a week or more	15.4%	17.9%	16.6%
Once or twice a month	51.4%	50.5%	51%
Once or twice every 6 months	19.3%	14.1%	16.7%
Once or twice every 12 months	4.8%	7.2%	6%
Irregularly	5.7%	6.6%	6.1%

Respondents were then asked where they would normally wash their car.

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 a further 24.5% saying on the street or driveway. Respondents who never wash their vehicle are excluded from this question.

Location for Washing of Car or Motorcycle (Gender)

% within gender

	SEX		Total
	Male	Female	
On the lawn	64.4%	65.6%	65%
On the street/driveway	25.6%	23.4%	24.5%
Commercial car-wash	9%	11%	10%
Car is detailed	.4%	0%	.2%
Location unknown	.5%	0%	.3%

Generally the figures for the 2001 survey are consistent with those from 2000. 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.

Maintaining Lawns, Gardens and Paths

Approximately 97% of people contacted said they had a lawn or garden. Of these respondents, 51% 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 based on gender.

Fertilise Lawn or Garden (Gender)

% within gender

	SEX		Total
	Male	Female	
Yes	53.4%	49.1%	51.2%
No	46.6%	50.9%	48.8%
Total	100%	100%	100%

The majority of people surveyed said that they fertilise their gardens once or twice every 12 months (58.4%). Generally the study found that people fertilised their garden less frequently, compared with survey results from 2000.

In response to a question on methods of cleaning household pathways, the majority of those people surveyed said they used a broom (56%). A further 26.3% said they either used a blower (10.9%) or never cleaned them (15.4%). This left 17.7% of people who used a hose to clean their paths.

Generally, these results are fairly consistent with the 2000 survey - broom (54.5%), hose (16.6%), blower (6.9%) - the small percentage of respondents who use a hose to clean pathways suggests that key messages in relation to stormwater run-off from driveways and pathways has been heard by a large majority of the community.

The results for the 2001 survey are tabled below:

Method Used to Clean Paths and Driveways (Gender)

% within gender

	SEX		Total
	Male	Female	
Sweep with a broom	59.1%	52.9%	56%
Hose	17.6%	17.7%	17.7%
Use a blower	10.7%	11.2%	10.9%
Don't clean them	12.6%	18.2%	15.4%
Total	100%	100%	100%

3.6 Recreational Usage of Lake Macquarie

There is only a small proportion (13%) of households in the Lake Macquarie catchment where there is no-one in the household that uses Lake Macquarie for recreational purposes. In 7% of households one person uses the Lake, in 31.8% of households there are two people, in 19.8% of households three people and in 28.4% of households four or more people.

For respondents involved in this survey the majority (55.5%) suggest that they use the Lake at least once each week and a further 29.6% of people suggest once or twice each month. Only 2.2% of people suggest that used the Lake once or twice every 12 months and a further 2.6% 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 25-39 age-grouping, where 65.1% 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 2000 survey, and encourages the notion that the local community is still a key stakeholder in the future of the Lake.

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

Activity	Irregularly	Never	Other
Recreational fishing	3.7%	61.5%	34.8%
Sailing	.5%	84.3%	15.2%
Boating	4.1%	53.8%	42.1%
Swimming	3.5%	63.9%	32.6%
Windsurfing	.1%	97.5%	2.4%
Cycling around the foreshore	1.2%	68.7%	30.1%
Walking along the foreshore	3.9%	4.3%	91.8%
Picnicking on the foreshore	4.8%	23.1%	72.1%

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 were walking and picnicking. The least popular were windsurfing and sailing.

These results were consistent with the findings of the 2000 survey report. Picnicking and walking around the Lake would suggest a familiarity with foreshore areas. This would suggest that the awareness of foreshore related issues, such as vegetation, drainage systems and sedimentation would register higher than issues such as seagrasses, urban development and foreshore seawalls. This is generally true from the results of question 9, which asked respondents to allocate a rating of importance to a list of key issues. The most important issues from these results were (in order) drainage systems, water movement between the Lake and the ocean in Swansea Channel and vegetation around the lake foreshores.

Appendix I

Questionnaire used in the Community Survey

Telephone Number: _____

Questionnaire No:

Time of interview: _____
of interview: _____

Date

Good morning/afternoon/evening. My name is .. from The Hunter Valley Research Foundation 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 |
| 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 In the last three months have you received a copy of a newsletter which outlines some of the key environmental issues in the Lake area, and reports on some of the major projects in progress around the Lake and catchment area?

- 1 Yes
- 2 No

Q.2 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.3 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.4 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.5 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 CAN NOT GIVE AN ANSWER]

- 1 Poor
- 2
- 3

- 4
- 5
- 6
- 7
- 8
- 9
- 10 Excellent
- 11 Don t know

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

Q.7 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.8 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.9 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
	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
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.10 Do you own or have access to a car or motorcycle?

- 1 Yes
- 2 No Go to Q.12

Q.11 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.12 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.13 Do you have a lawn or garden?

- 1 Yes
- 2 No Go to Q.16a

Q.14 Do you fertilise your lawn or garden?

- 1 Yes
- 2 No Go to Q.15

Q.15 How often [do you USUALLY fertilise your lawn or garden]? [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.16 How do you clean the paths in your garden? [DO NOT READ OUT ANSWERS - ALLOW ONE ANSWER ONLY]

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

And now some questions on usage of the lake

Q.17a 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.17b 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.18 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 Irregularly week or more	Once or twice Never a month	Once/twice every 6 months	Once/twice every 12 months		
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.19 Do you have any other comments about environmental issues affecting Lake Macquarie? [RECORD ANSWER]

Q.20 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.21 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.22 What is the gender of the respondent? [CIRCLE ONE ANSWER ONLY]

1 Male 2 Female

Q.23 What is your age?

Q.24 What is your work status? [CIRCLE ONE ANSWER ONLY]

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

Q.25 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.25a How many years have you resided in the Lake Macquarie area?

Q.26 How many people aged 18 years and over are there living permanently in your household, including yourself?

Q.27 This space is for any additional comments made by the person or any comments you would like to make about the interview? [RECORD ANSWER]

Thank you for your co-operation today

Appendix II

Detailed results of the Community Survey

Question 9 – Mean (Gender)

Question 9 – Mean (Age)

Appendix III

General comments made by respondents

Verbatim Responses - Code

- 1 Infrastructure
- 2 Community Facilities
- 3 Environment
- 4 Crime & Education
- 5 Planning & Management
- 6 Economic Development
- 7 None

Responses to Q19

More bins around the area.	1
Roads need improvement.	1
The boat ramps are fenced at shingle splitters point hard to put boats in.	1
All around the lake should be sewerred	1
An overhead bridge is needed in Swansea so the boats that come in have access to the lake.	1
Cockle creek bridge needs to be wider.	1
Look after drainage systems, continue monitoring	1
The price of the garbage tips are too dear for low income earners. They would be better off to raise the rates and provide tip entry and service for free.	1
Curb and guttering in Cardiff South.	1
Like them to do something about the roads especially in the areas they get plenty of money	1
Member of the RSL and they have been trying to get the council to put recreational things out front of club like BBQ's etc and Dobell Park is brilliant but	2
Been great developing the cycle-ways but they haven't maintained them	2
Council should lay off dog owners - more leash free areas.	2
The path that goes from Booragul around to Croudace Bay should be extended a far as they can take it to Fennell Bay, Marmong Point and Eleebana, Valentine green	2
Like to see cycleway all way around the lake	2
Council wash bay for cars which is not expensive or free	2
Cycle-ways are a good thing and i would like to see them extended to Toronto.	2
Disable facilities to be improved	2
For public use the foreshores have been greatly improved	2
Foreshore walks developed as far as possible around the lake.	2
It would be nice to have the area around Lake Macquarie upgraded with things like more recreational facilities.	2
Lack of footpaths around the foreshore and would make life easier foe people especially kids.	2
Like to see more cycle-ways	2
More paths around the foreshore	2
More picnic tables	2
Need to continue building facilities for families to use.	2
Think its good what they have done at Warners Bay the picnic areas	2
Think the improvement of the lake foreshore is terrific	2
To clean the boat ramps up	2
Very significant to help preserve it's potential for family activities	2
Walkways are excellent around the foreshore and I hope they extend it through from Green Point to valentine.	2
Balcolyn progress hall in poor repair. The ramp at balcolyn very slippery.	2
Wangi has nothing recreational over there. The council have been informed about it.	2

Point etc Green Point should have some more foreshore area to enjoy	2
More cycle-ways and walking paths around the lake	2
They lived next door to the secretary manager of RSL but he was lost at sea and he was the one trying to get recreation places into Wangi	2
Garbage bins around the lake	2
More sandy areas and places to swim around the lake.	2
Tighten up on Power Station which puts out a heap of junk at night.	3
Industry around the lake should be taken away such as Pasminco and the selenium getting into the fish up around Cockle Creek is bad need more	3
Keep the channels clear	3
People taking responsibility and making an effort to restore environment. Don't disturb it too much.	3
That we should do our best to look after the lake but we have to share the workload.	3
Should be a lake limit to the amount and size of fish caught that is different to the standard one	3
Fix the run off into the lake so keep going the ponds and get rid of the commercial fisherman	3
Maintenance of Arcadia vale park and swimming area. It's great when the weed is maintained and sand is dumped on the sea floor	3
Pasminco - causes a lot of muck in lake.	3
The tides wash all the rubbish to the western end of the lake where it piles up	3
My family has lived in the area for a number of generations and from stories/photos i can see that it has gone downhill.	3
Think environmental they are doing well	3
Buy out fishing licenses of lake/commercial fishing must cease.	3
People dumping grass clippings on the side of the road	3
The channel should be dredged more often.	3
Be good if people moving into new houses would be more respectful towards to the native wildlife and think about whether they should build a new house people	3
Leave the trees alone	3
The council doesn't have the power to police the environment	3
Would like to stop fisherman littering with prawn and bait wrappings, beer bottles, soft drink cans you often see them floating in lake.	3
Around the shores where the jetties go out too much seaweed and alot of bottles tops and rubbish from the public in general and too much seagrass	3
More attention to tree preservation order.	3
Air pollution coming from Pasminco. Something needs to be done about it.	3
Always a strong sewerage smell around Warners Bay.	3
Believe it's important to keep it in as pristine condition as possible.	3
Can not swim in the lake sea lice.	3
Clean it	3
Clean up mud and sludge so kids can swim	3
Close Pasminco down	3
Concerns about development. Degradation of land for industry	3
Council should spend more time cleaning up the waterfront at Belmont	3
Councils need to put more effort into preventing the build up of run offs and siltation in the lake.	3
Deforestation is very very bad for the lake	3
Dog poo everywhere around the foreshore.	3
Eradicate the weed recognised in the lake as a threat to fisheries	3
Feels that the dumping of sulphide is the worst problem affecting the deteriorating condition of Lake Macquarie. Many problems would be solved by stopping this.	3

Fix up of lake	3
Get rid of the professional fishermen.	3
Get their act together and clean it up	3
Good to see preservation of wetlands for the birds	3
Heard from long time residents that the lake is dying	3
I do not go swimming in the lake any more because of the syringes around	3
I hope they preserve them	3
I think the Landcare association are doing a good job, they have a lot of projects going at the moment that are beneficial	3
If they can get rid of that noxious weed in some parts of the lake	3
If they don't do something now it will be too late	3
In regard to developers themselves and what responsibilities they have as to what do they remove in regards to vegetation and natural waterways,.	3
It's a disgrace that the lake has been able to get this bad before something has been done	3
It's a shame to see such a beautiful area in such a state	3
Just educate he public and conservation of wildlife.	3
Keep a balance between the development and the environment	3
Leave it as natural as possible or to fit in with the environment.	3
Like to see more about how to keep the lake clean and fine anyone that is caught throwing rubbish in the lake.	3
Like to see that it is looked after as I enjoy my walks and time spent around the lake and would like to see it maintained	3
Look after what we have.	3
Mangroves are an effective way to preserve and purify the lake	3
Money generated by the new fishing licence system should be utilised solely on environmental protection issues in Lake Macquarie/coastal areas	3
More foreshore beautification like around Warners Bay	3
More serious approach to preventing the degradation	3
My personal belief is that Pasmenco and the Power Stations don't help Lake Macquarie and the lake won't improve till they do something about them	3
Myuna Bay park clean it up.	3
Need to look at restoring some of our creek entries into the lake restoring some of the natural filtration	3
Need to look at the availability of fish for the recreational fishermen in the future	3
Net fishermen should not be there	3
Not too much urban development like green point	3
Now that they have started on environment issues keep up with it.	3
Overdevelopment of the area has to stop	3
Particularly concerned about the seagrass as it is the nursery for a lot of fisheries	3
People should be made more aware of the consequences of their actions	3
People need to be more careful about throwing away rubbish and aware of its effect on the environment	3
People should take a lot more care with their actions	3
Pity we didn't wake up sooner and do something about it	3
Planted vegetation to over come the erosion on the beach and has created a haven for vermin which is bad.	3
Pruning of trees in an aesthetically pleasing way instead of chopping the middle out of them.	3
Quality of the lake needs improving	3
Resp. Has doubts about the value of dredging	3
Resp. Has noticed an improvement in the environment in the last few years	3
Resp. Is concerned about lead levels around Pasmenco	3

Sea lice are bad.	3
She thinks that environmental issues are very important even though she is not very knowledgeable herself	3
Shifting of the sand which is covering the seabeds in pelican - stops water flow and is choking the seagrasses	3
Should not make it a sanctuary as it is there for the public to use	3
Some of the volunteer groups are doing a great job to clean the area.	3
Strongly support the dredging of the channel to get some fish in the lake under strict control	3
That Lake Macquarie is very beautiful and fragile and has notice a deterioration around the lake which is disappointing.	3
The amount of boats that use it could be curbed at times. I think this is part of the reason for the pollution in the Lake.	3
The amount of fish and crabs in the Lake is dropping but do not know how much is the result of professional fishermen.	3
The council are doing a great job with the environment.	3
The council should be doing more to lessen pollution in the Lake	3
The fishing inspectors are the ones who stuffed the lake up. The people in charge don't know what they are doing, they try to big note themselves, they're jerks.	3
The greatest concern is the deterioration of the Lake. Lack of fish	3
The lake is a sad sight	3
The lake is drying up under the fennel bay bridge	3
The lake needs to be managed better	3
The Landcare group have planted trees around the lake but people set up camp in the middle of them	3
The Pasminco smelter has reduced the amount of admissions from the smock stack which is good	3
The pollution from traffic is a major concern	3
The present council will do their best by the environment	3
The professional fishermen should be bought out. Or find out if they are good for the Lake	3
The storm water drain at Belmont bay is always blocked with rubbish it needs to be cleaned out	3
The waterways and seagrasses has to be fixed up	3
The wetlands that the council have built at Croudace Bay are excellent.	3
There are too many trees.	3
There is no fish left in there to fish	3
There seems to be a lot of problems with jet skis and that sort of thing as they pollute the lake and can ruin the recreational activities of others.	3
There should be more drainage into the wetlands	3
There should be more trees planted around the lake	3
There's a lot of development going in especially around Warners Bay which has an impact on the lake, especially with run off. This is a problem.	3
They are doing a real good job	3
They need to clean the silt traps to stop to garbage that is in them going into the lake	3
Think its very important to look after the beautiful lake	3
Think to improve the water flow in and out of the channel and doing something about the run-off from peoples homes	3
Think we should encouraging householders to have rain water tank to cut down on water usage and it would help solve storm water problems	3

Thinks the area has improved over the past few years particularly foreshore and to going with the good work	3
To clean up the lake	3
To keep the dogs on leads when walking and keep them in the yards	3
To plant more trees	3
Wants more trees planted	3
When my children swim in the lake in the summer they come home with itchy bodies.	3
Years ago they cut the trees all the time . Now you can grow nice trees	3
Dogs do their business on the paths	3
Less ignorance. More people should think about where their rubbish ends up.	3
The mosquitoes need to be eradicated	3
Native fauna only around foreshore.	3
Wetland to filter the run off water	3
The weed that is infecting the lake needs to be stopped	3
To share the Lake with the environment and people.	3
The Lake should be treated as an impounded area	3
Cleanliness of the lake itself	3
Council have made a genuine effort to clean up the lake spent a lot of money.	3
Erosion water slowly eating away the foreshore between Bolton Point Community Hall and Fennel Bay bridge. Korora Bay	3
I am happy that people are becoming more aware of the environment and things are being done.	3
Maybe banning recreational fishing for 5 years at least to restock the lake.	3
More silt traps going into the lake.	3
Moving from Sydney in particular get rid of the trees cause they find them messy and untidy and want to turn it into suburbia	3
Protect the birds and animals from development	3
They should hurry up and dredge the stony creek and muddy creek	3
Too many lice in it to swim in.	3
We recently lost about 20-30 trees.	3
Over fishing in the lake	3
More community involvement needed to clean up the lake and surrounding areas	3
I think it is a lovely place	3
Would like a brown bin for garden waste.	3
Take a look at the damage that has been done by people might make people realise.	3
There should be man made structures in the lake to promote the breeding of fish	3
They still keep giving out fishing licences	3
Retain what we have left.	3
Leave cars at home when you can ride your bike.	3
The litter at the recently relocated skate park at Croudace Bay	3
Should be a lot more dredging on the lake.	3
The sewerage being pumped into the lake could be reused on farmland	3
More plants and vegetation around the lake. Replenishing.	3
Moving towards people recycling their own water.	3
To stop people from revving their cars up and causing more smoke and pollution	4
Continue to educate the public.	4
Make people aware of general common sense	4
Not enough information on basic things	4
Some of the parks need to be patrolled by Rangers... child molesters, needles too dangerous to go to public toilets etc...	4
Syringes in the park at Toukley	4
The laws are not enforced consistently around the council area ie dogs and their	4

droppings, fines are not imposed in the outer suburbs	
Council doesn't tell citizens enough about water catchment	4
Stop band aiding the issues	5
North Wallarah development or Pinny Beach. Caves beach hotel site concerned that there is a lack of information on what is being done.	5
No enough done from the council.	5
Council have to implement a policy that can be followed through and not changed due to an election	5
Don't just talk about discussion groups get them up and going and have them in all areas of the Lake Macquarie suburbs to get everyone's opinion .	5
Don't think the jet skis should be allowed to zoom around the Lake and the power boats also	5
I hope that the council acts in response to the survey	5
In general the council is moving in the right direction and they should continue along these lines.	5
Just to listen more to the people in the area.	5
Less research and more work	5
Magpie season signs should be show around areas where children are at risk	5
Need some better planning and organising	5
Regulatory authorities adopt a sensible engineered intellectual investigation of each problem area as it occurs	5
She is pleased that the council seems to be doing what it can to fix problems.	5
Shouldn't have high speed boats on the lake.	5
Stop talking action is needed	5
There should be more done by everybody	5
They could spend more money further round the lake instead of just concentrating on Warners Bay area	5
Things are being done and have to keep happening not put on the backburner	5
Think council doing a good job on foreshore maintenance think efforts around Warners Bay admirable like what they have done at Croudace Bay	5
Think we need to address some of the issues sooner rather than later	5
Thinks that council are doing on ok	5
To have a specific area for the speed boats that are away from the children	5
We need to address controlled back burning especially as summer is approaching	5
More sensible people - boaters with more of an idea.	5
Should upgrade the sulphide industry	6
To encourage more tourism into the area. To bring money to the area to help maintain a healthy environment.	6
Too many greenies are holding the area back and stopping development in the area	6
Urban development should be kept away from the foreshore.	6
Waterfront properties building/concreting right down to the waterfront. Council should reclaim the foreshore section of land for public use	6
Would not like to see more development	6
Stop development to water's edge.	6
Stop sticking up buildings everywhere.	6
Urban development away from foreshore.	6
Nice place	7
No	7
No comments	7
No more comment as have answered all the questions asked.	7
The lady did it but she did not seem interested.	7

