

# Department of Environment, Water and Natural Resources Lake Albert and Narrung Narrows: A Community Perspective

### **Research Director:**

Jason Dunstone [Managing Director]

### Data collected:

Qualitative – 1-2 May 2013 Quantitative – 8-14 May 2013

### Client:

Department of Environment, Water and
Natural Resources
On behalf of the Lake Albert Community Reference Group
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### **Foreword**

This report provides a summary of findings from the Community Requirements Study which forms a component of the Lake Albert Scoping Study.

The Community Requirements Study included the collection of community views on the various potential management actions to manage Lake Albert water quality. These management actions were formulated from, amongst others, the Meningie Narrung Lakes Irrigators Association's 5 point plan, other community proposals over time and the current action of actively managing lake levels through targeted cycling to optimise salt export from Lake Albert.

Whilst this report provides an insight into community opinion, it is acknowledged that only preliminary information for each management action in terms of its required infrastructure, operation, cost and benefit was available to community at the time of survey.

Any preferred management action must be shown to meet the project objective of managing water quality in Lake Albert. Modelling and engineering feasibility studies will determine the effectiveness of management actions while a cost benefit analysis will inform the economic viability of implementation. Ecological and cultural impacts will also be considered in the preparation of the Business Case seeking funding for the preferred management action.

The Community Requirements Study is one component of the wider Lake Albert Scoping Study so will not be the sole recommendation for the preferred management action(s). However, it provides a useful insight to local sentiment and background knowledge of the community requirements for the future management of Lake Albert.

"The water's there. Therefore things will get better. So the thing in this community is that lake - it's probably a terrible analogy - but it's really the barometer of emotional health. When the water's in, they feel like they can cope with things."



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"Through the drought the Lake just dropped right off, as far as good fish, and the Coorong wasn't all that bright either. And the lake hasn't come good yet, and it will probably take a fair while for that to come good, because of the stocks that just got depleted to nothing, and you've got to wait for them to breed up again." [Fisherman]

### The mission:

"To determine community wants and needs in relation to the future management of Lake
Albert and Narrung Narrows"

### **Sub-objectives:**

- 1. How best to manage the future of the Lake
- 2. How to protect the biological and ecological features
- How to return an amenity for local residents and their communities
- 4. How to provide adequate flows of quality water to maintain Ngarrindjeri cultural life
- 5. Ensure tourism and recreation businesses can utilise the lake
- 6 Productive and profitable primary industries



### **Background**

This research project will provide vital data to aid in decision making in relation to the future management of Lake Albert and Narrung Narrows. Lake Albert has been subject to alternating periods of high water flows and suitable water quality interspersed with low flows and poor water quality. Currently a scoping study is reviewing previous studies along with working with the community to develop an agreed methodology for the future management of Lake Albert water quality and the Narrung Narrows.

As part of an overall Lake Albert Scoping Study, the requirement to identify the needs and wants of the community with regard to action plans for Lake Albert was sought. This research forms the basis for The Community Requirement Study, which was conducted by Square Holes Pty Ltd, an independent South Australian based social and market research consultancy, with a strong background in government, environmental and community quantitative and qualitative research.

The project will provide an independent analysis of the opinions and needs of the surrounding community. In the terms of this research interest groups will be consulted, along with a random selection of the general community. In this way opinions and views can be quantified to allow for robust decision making. By utilising a random sample for the quantitative phase of the project, there is assurance that a wide range of views have been identified rather than the opinions of a vocal minority, thereby allowing for decisions based on the opinions of the wider community.

This research provides the Department of Environment, Water and Natural Resources with the opportunity to ensure strong community engagement with the wider project. In conducting the research the community showed strong engagement with the topic.



This research will provide the necessary background understanding of the community needs and attitudes. Combined with the review of previous studies and current work with the community, a case study will be prepared to guide the optimal way forward for Lake Albert.

### **Methodology**

### **Qualitative Research**

A series of 10 in-depth interviews were conducted with community leaders and stakeholders. These were conducted in home/ office in the surrounds of Lake Albert and Meningie. Interviews ranged from 30 to 60 minutes.

Two focus groups were conducted with community members.

### **Quantitative Research**

A total of 189 survey responses were collected via telephone amongst residents of the region. The survey was also made available via an online link advertised within the LakeLander, however, no responses were recorded.

Qualitative Research Overview [Focus Groups]				
Number of groups	2			
Composition	Community members as specified by DEWNR			
Group length	90 mins			
Group location	Meningie Hub			
Moderation	Jason Dunstone			
Honorarium	No honorarium was paid or gifts given			
Collection Dates	May 1 2013			

Qualitative Research Overview [In-depth Interviews]				
Number of interviews	10			
Composition	Community members as specified by DEWNR			
Interview length	30- 45 mins			
Group location	In homes			
Moderation	Jason Dunstone			
Honorarium	No honorarium was paid or gifts given			
Collection Dates	1 <sup>st</sup> and 2 <sup>nd</sup> May 2013			

Quantitative Research Overview				
Total sample size	n = 189			
Sample	Residents of postcode 5264 and selected locations in postcode 5259 [Narrung, Raukkan and Poltalloch]			
Survey length	15 minutes			
Sample error	+/- 6.2			
Collection dates	8 <sup>th</sup> to 14 <sup>th</sup> May 2013			

### In A Nutshell

There was a high level of consistency of opinions from the research from across the community and key industry and other stakeholders involved in the research. The clear outcome was that something needs to be done urgently and that discussions and studies have been occurring for many years. Some of the older people in the area referred to discussions about the connector and other actions for 50 years plus.

While the water level of Lake Albert is clearly a concern, with the water all but disappearing around 5 years ago, the major ongoing problem is excessive salinity and associated poor quality water. From a community perspective, this has also been a problem for many years – much longer than the past decade.

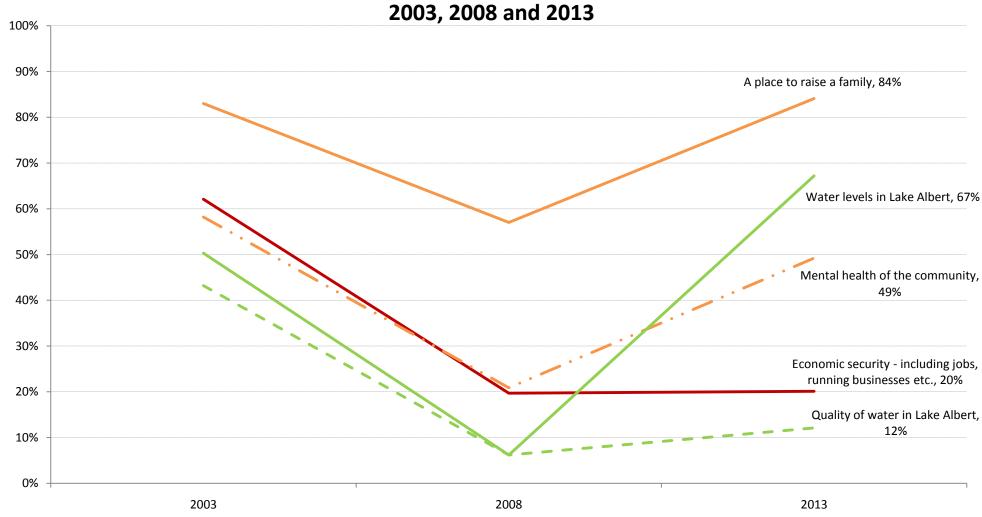
Lake Albert is a classic example of the link between environment, economy and social aspects of the community. With the water disappearing, the once vibrant and positive mood dropped dramatically. Economic times were tough for farmers, commercial fishers, businesses and the broader community. Mental illness increased and a generally concerning morale formed.

While the water returning was a huge relief, significant water quality, economic and other problems still exist. From a community perspective action is required urgently in order to be well prepared for future drought.

Three key conclusions from the research emerged ...

- 1. Minimal unnecessary human interference e.g. a Permanent structure in Narrung Narrows was almost universally opposed in the in-depth interviews and focus groups, and recorded the lowest level of support of the six actions in the survey of the broader community. There was a view that nature has a good way of helping itself yet sometimes needs a bit of help.
- 2. Something needs to be done soon. Too much investigation and pontificating has occurred for decades. The visible and invisible issues around five years ago with the water disappearing should be used as a wakeup call to get on with doing something soon to improve water quality and safeguard the future of the community.
- 3. There was a general level of consistency of views irrespective of their role in the community – e.g. environmentalists, farmers, fishers and general members of the community had reasonably consistent views. There was little debate from within the community just a desire for something to be done for the environmental, economic and social viability of the area and for key government and other stakeholder to provide the necessary support.

# COMMUNITY RATING ASPECTS OF AREA AS EXCELLENT OR GOOD 2003. 2008 and 2013



Of the six Actions Plans put forward in the research the main conclusions and priorities from the research was as follows:

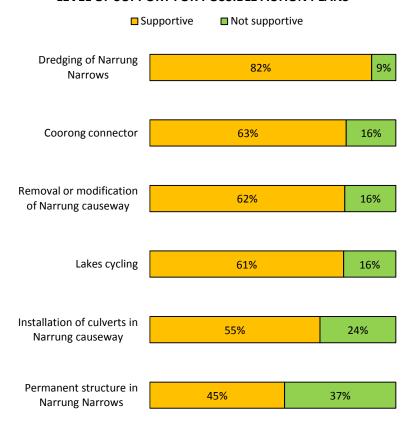
 Dredging of Narrung Narrows was almost universally supported as a viable way to support the natural flows. It will be essential to ensure the dredging is done in a way to support natural flows and does not result in moving from one area to another, later to return the problem. In saying this, some viewed that nothing much had changed in the Narrung Narrows over history.

The above is viewed as the priority by the community, then if not successful try ...

- 2. Removal or modification of Narrung causeway was also supported as it was viewed as an impediment to the natural flows. Some believed that the cost involved may not justify the end result, yet many examples [including photos throughout time] were used to illustrate the problem created by the causeway.
- 3. Conduct an environmental impact study on the Coorong connector. Most were supportive throughout the research with little strong opposition. The main issue was the environmental impact of the connector on the Coorong. Much of the issue surrounding the connector was how it would be designed and implemented and a desire to ensure that other options as above and influencing irrigators further up the Murray to be more responsible and respectful in the future. Others, mainly irrigators, were of the opinion that the connector was the only viable action and others would waste time and money. Their view was that other options had been tried and failed and this was the only viable option to improve the key problem water quality.

In saying this, all Actions, other than the permanent structure in Narrung Narrows [which was strongly opposed by most in the in-depth interviews and focus groups], were endorsed by the community.

### LEVEL OF SUPPORT FOR POSSIBLE ACTION PLANS



Some 'did not know' and have been excluded from the above graph

Some felt that the Lake was part of them and the connection formed the lifeblood of the community. In line with this 56% stated that Lake Albert was the heart of the community. "The town dies without the water it's as simple as that." [focus group]

Many could not name anything that they disliked about Lake Albert, with 76% stating they are extremely likely to be living in the area in 5 years time and a further 13% quite likely. "Who would not want to live here?" [focus group]

A further key point emphasised throughout the research was a feeling that Lake Albert and its surrounding community had been treated poorly by government. Also raised was that the problem is largely upstream in over irrigation not allowing the necessary flow to Lake Albert, the Coorong etc. There was a view that many were willing to see Lake Albert die, but this would be like creating a cancer that would work its way up the Murray River. "We have to get the water across the border before any of this is going to be effective." [focus group]



"We had, at one point, 21 dairies along the peninsula. It got down to three at one point. I think it's back up to about seven now. Because of losing dairies, and dairies are a relatively jobintensive business, a lot of the farming workers, people who worked on the properties with their families, moved back out. So we had a significant reduction in numbers at the school amongst its kids – kids of the farm families. And so once you reduce the number of kids, you reduce the number of teachers and most of the teachers and husbands or wives of other people working in the businesses, so particularly a lot of that is to do with farming. So often for the farmers, the partner's other job, whether it's at the hospital, the school, the bakers or whatever, is a significant source of income for the day-today cash flows" [Community Service Provider]



"The community realised that we had to fight to survive, because the Government wasn't going to put any great effort into the place. The only thing they ultimately ended up doing for the community apart from sending down counsellors – oh, woop-di-doo. Sorry, don't mean to be rude, but having someone to sit there and go, there, there, doesn't actually get anything done – was that they brought forward a longstanding proposal to bring in another water pipeline from Tailem Bend to deal with some of the outer marginal water areas for houses and stock water. And the money came not from Adelaide anyway. It came from the Canberra fund and they did spend I think \$30 million. But it was always proposed to have been done anyway as part of SA Water's long-term plan. They needed a second pipeline anyway as a backup to the first pipelines. So that got done eventually but that kind of came toward the end. By the time it got to the building it was almost twoway anyway, but they had to build it because they had no water at the Aboriginal community at Raukkan, because they got their water from Lake Alex. It's terrible water. They should never have been in that position. So, ultimately, they had to find them a potable water source, so they built a pipeline. Meningie just happened to get the advantage of it as well. But, that said, it was 20 years overdue anyway, so there was an opportunity that was grabbed I think appropriately and correctly. But other than that, and sending down financial counsellors and having people do the meetings, it was clearly never the intention of the State Government in particular to do anything. So the town survived through its own resilience and the fact that ultimately the rain came back and the water came through. The big focus during the recovery period then became about convincing as many people as we can up the political stream to not build any more dams, not have any more water storages – the Lake needs a certain amount of water. It doesn't need a huge amount but it needs a certain amount." [Community Service Provider]

### **Sub-objectives:**

- How best to manage the future of the Lake → Ensure an adequate water flow that will protect the area in future drought times.
  82% support dredging of Narrung Narrows.
- How to return an amenity for local residents and their communities Those involved in the research called for improved water quality and ensuring adequate water flow will continue to support the community. While Lake Albert water levels have returned, water quality was viewed as continuing to be poor, with salinity a believed by the community to be a significant problem.

- 4. How to provide adequate flows of quality water to maintain Ngarrindjeri cultural life 
  The strong connection to the land is also dependent upon the water flow. It was integral to view the environment, social and economic aspects of the community as intertwined. Traditional activities as well as broader prosperity were viewed as highly reliant on Lake Albert by the local indigenous community.
- Ensure tourism and recreation businesses can utilise the lake
  → Adequate water levels are vital for tourism and recreation, with quality less of a factor. For some there were issues with other tourism infrastructure within the area, such as a lack of sealed roads to visit areas of the Coorong.

# **The Lake Albert Community**

"The water's there, therefore things will get better. So the thing in this community is that lake – it's probably a terrible analogy, but it's really the barometer of emotional health. When the water's in, they feel like they can cope with things."
[Community Service Provider]

"The case is simply that the town itself has a population of around 1,000 people, 300 or so which are indigenous. They're an indigenous population that are non-nomadic. They are famous in history as the only non-nomadic tribe. They don't see any reason to move. The water is the basis of their cultural experience. So if you just stick to the Indigenous thing, the water is part of their history and so from their perspective, they need it for their psyche. From the rest of the town's perspective, the water is the basis of the economy. We have a fishing industry which is world recognised in terms of its environmental – it's one of only two fishing areas in the world that's recognised as sustainable by the World Wildlife Federation. And that employs a lot of people and it basically sustains families. The farms, of course, rely on water. They've restructured, to be honest. They're not needing as much as they used to. That's possibly one thing that they actually did rather well after the drought. The farmers were not stupid. They've changed some of their farming techniques to try to get themselves back on their feet. I think they've done a very good job. And Meningie also is a tourist town. It's a place where a lot of people come because of the water and its proximity to the Coorong, which of course is a famous national park, and Meningie is the heart of the Coorong. We are on one of the major highways. We're on the Princes. So the Grey Nomads are very fond of Meningie, as it's well known for it, as a place to come. So from the Government's perspective, it serves those functions, and that it's a tourist town, farming town, fishing town. It's got significant indigenous and historical qualities. And the other thing about it is it's also important, and this is an issue I think a lot of people don't understand about country towns, is it's a safety factor. I mean, you head out of Adelaide, you get to Tailem Bend and you turn down the Princes Highway. If, economically, Meningie folded up and basically died and rotted away to nothing, the next town south is 200 kilometres from Tailem Bend. At any given instant, there is a huge number of people, tourists, scattered along that 200 kilometres looking at the beaches and so on. And one of our roles is that we're a base for emergency services. We have ambulance, fire brigade, SES, hospital, helipad sitting up there and we have a lot to do with car crashes, all sorts of stuff. We're here to deal with all that. We have a little airport here which is actually an important security airport, one of the beacon reference points in South Australia. So all of these things are here so that if the town folds up, then the SES, the CFS, the ambulance, they're all gone, so who's there to rescue people when shit hits the fan, to put it bluntly? This is not like the central deserts where there's basically one person every 500 kilometres. Go park down the street and watch the caravans go by, watch the trucks go by. This is the main drag. So this community is a major source of services for tourism in this State, not to mention trucking and farming and so on and so forth.

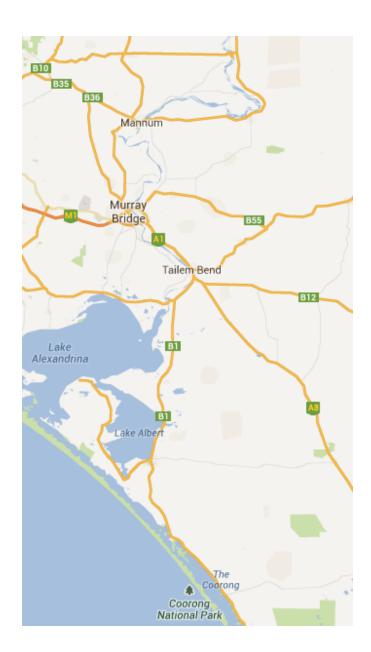
**So that's why this town is important."** [Community Service Provider]

Approximately 1,000 people live in the Lake Albert area located just above the Coorong region of South Australia that denotes the point where the Murray River flows to sea.

From the survey two thirds of respondents have lived in the area for more than 20 years, and only 6% having moved into the area in the past 5 years. This mirrored the qualitative research [in-depth interviews and focus groups]. Many people had lived in the area for their entire lives, as have their family and grandparents. They were able to articulately discuss trends over time, what they loved about the area, and importantly where priorities exist.

Most lived in the area for family reasons, while employment, owning a farm in the area, and lifestyle were also prominent motivations. Over half viewed Lake Albert as essential to the area and the emotional barometer of the area. The community found it hard to say what they didn't like about the area, and aligned to this three quarters anticipate that they will still live in the area in five years. Although for many the last decade was economically and socially difficult, the vast majority are still well and truly connected to the area they love.

In saying this, there is still a high level of uncertainty regarding the future. There was a view that there had been a change in the profile and mood of the community which has had significant ramifications socially, economically and environmentally. Although the water has returned economic and social aspects of the community have still not returned to pre drought levels.



### How long have they lived in the area?

Over two thirds of respondents [67%] have lived in the area for more than 20 years, with 18% of these having lived in the area for more than 50 years suggesting a very strong commitment and engagement with the area.

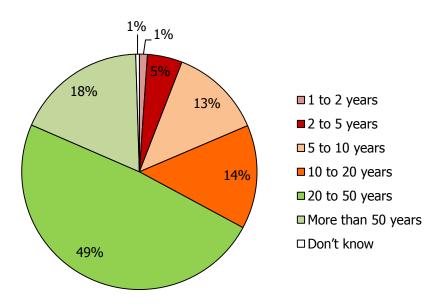
From the survey there had been very little movement into the area during the drought years, with only 6% having moved into the area in this time. This mirrored the qualitative research [in-depth interviews and focus groups]. Many people had lived in the area for their entire lives, as had their family and grandparents. They were able to articulately discuss trends over time, what they loved about the area, and importantly where priorities exist.

"I've lived here for 80 years." [Farmer]

"Bred and born here. Born in the main street of Meningie and I just turned 76 years of age." [Fisherman]

"Originally came as a teacher, but then decided to stick around because we liked it." [Focus Group]

### **LIVED IN THE AREA**



### Reasons for Living in the area

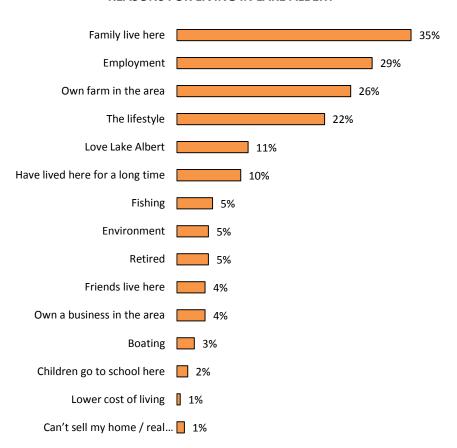
**Family** was a key reason to live in the area for over a third of respondents [35%], followed by **employment** [29%], **own a farm in the area** [26%] and the **lifestyle** [22%].

These reasons were also key for those in the interviews and focus groups, with lifestyle and a feeling that the area was an important part of who they are widely expressed.

"Lifestyle and safety, it's a relaxed lifestyle. We have finches and fairy wrens, it's lovely to look out and have a bit of land around you. And the sense of community here, if something goes wrong people rally around." [Focus group]

"Why I live here is I like the area, I like farming. I like the Lake.
I've got lake water in my blood and I've got Coorong water in my blood." [Farmer]

### **REASONS FOR LIVING IN LAKE ALBERT**



### What does Lake Albert mean to you?

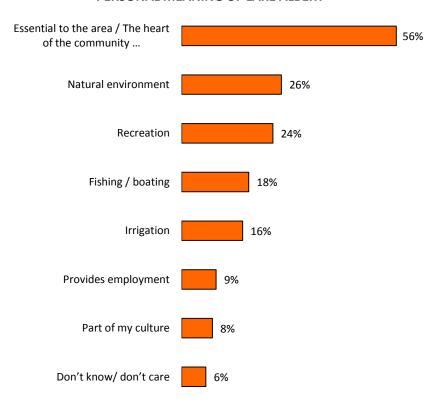
Over half of respondents [56%] consider that Lake Albert represents the heart of the community and as such is essential to the area.

The qualitative findings were confirmed within the interviews and groups with Lake Albert central to the community. Without water in the Lake, the whole mood of Meningie was deeply affected. Despite this, the community generally feel life living near Lake Albert is pretty good.

"This is the main drag. So this community is a major source of services for tourism in this State [in terms of accident and emergency], not to mention trucking and farming. That's why this town is important." [Community Service Provider]

"The town dies without the water, it's as simple as that." [Focus Group]

### PERSONAL MEANING OF LAKE ALBERT



### What do you dislike about Lake Albert

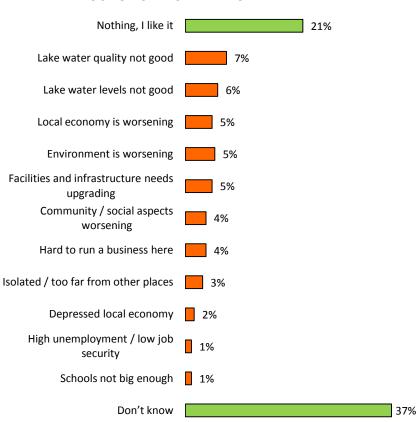
Over one fifth [21%] did not dislike anything about the Lake Albert, with one third [37%] unsure of any disliked aspects of the Lake.

Most within the groups and in-depth interviews would not consider living anywhere else. The only concern was that with the economic problems the area is facing, vacant farm houses and related socio-economic challenges, has come a changing profile of the community. Compared with the more buoyant times of 2003 and before, Lake Albert is now believed to be attracting a larger proportion of unemployed and socially disadvantaged people.

This has the downside of changing the dynamic of the area. For example, where those living in Lake Albert for a longer period know the 'community responsibility' of living in the area such as involvement in local sport, charity and other groups. The culture of the area is potentially changing partly from the emotional stress of the water disappearing and partly the change in population. Despite this, life living near Lake Albert is pretty good.

"Who would not want to live here?" [Focus Group]

### REASONS FOR NOT LIKING LAKE ALBERT



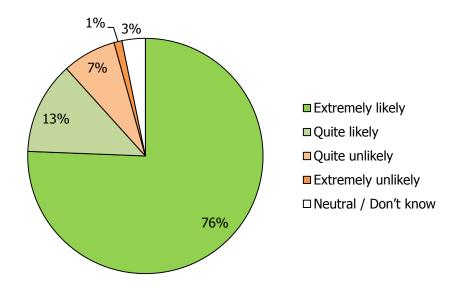
### Likely to be living in the area in 5 years time

Over three quarters [76%] are extremely likely to be living in the area in 5 years time, with a further 13% quite likely to still live in the area in 5 years time. This continues to confirm the strong engagement with the area amongst the community.

From the focus groups and interviews those with a strong connection to the area were unlikely to leave. There was a general feeling that those that had left the area had done so for employment reasons and were less likely to own property or businesses in the area. The drought had had a tremendous impact on employment in the region with reduced employment across farming, teaching and retail.

Much of the stress surrounding the disappearing water came from the economic impact on the area and the reality that in order to survive, they needed to leave. There still remains a high level of economic uncertainty in the area. While the best intention is to stay in the area for as long as possible, for some the reality is this may not be possible. Many talked of their children needing to leave the area, and the family unit was correspondingly difficult to maintain as it had been. It was now financially more difficult to support multiple family generations within the one business.

### LIKELIHOOD ON LIVING IN LAKE ALBERT IN 5 YEARS





"At the school we went from 278 down to 160, if there wasn't work in the dairies there was nothing to keep them here." [Focus Group]

"And one of the biggest things that I've always been on about is quality of water. And that's been the secret of the whole fishing here. If you've got quality of water, you usually got fish. And if you haven't got quality of water, well, you haven't got fish. A perfect example is the southern end of the Coorong. When I first started, we'd make the cut off point at the Needles, say. We fished down at the southern end all the time because the crabs used to be so bad from the Needles down this way that they'd wreck your nets in one night. The type of nets that we had to use in those days is all cotton — cotton and hemp. And you just couldn't fish there with this, unless you had heavy hemp Mulloway nets. And, we used to fish at that end all the time. Well, as the years went by, we got less and less fresh water. If it hadn't been for the '56 flood, it would have died long before it did."[Fisherman]

"In my lifetime, we've gone from the state when the lake was too saline, as it had been for nearly a half a century. Having had a lot of contact with my grandfather during his time, I've a good handle on how the Lake has been since European history. And I suppose it goes back a long time prior to that, too, because in the first 50 years or so of European occupation, the Lake it was fresh. It was fresh, potable water. No one irrigated, naturally, but it was stock water. And they weren't going around sticking a test tube in it to see if it was 2,000 or 3,000 or whatever, but it was – it tasted good, it was good, and the stock drank it. As a matter of fact, I've seen lots of evidence of that during the low lake periods. And rather interestingly, actually, when the lake was 200 or 300 yards out, there is quite a number of places there was stoned-up platforms where the stock were able to walk out and get their drink, because the edges tended to be boggy in a lot of places." [Farmer]

"There was enormous economic stress. So farmers would be basically beside themselves because they couldn't refinance and the market values had fallen so the banks weren't willing to refinance. They weren't willing to increase overdrafts. Workers were being laid off so they basically had to up and move families, which is always stressful for everybody. And so there was an individual level of mental illness which was obviously depression, anxiety, substance abuse and lack of selfcare. So people stopped worrying about their diabetes management, the hypertension and having the consequences of that as well, and other diseases developing, but also there was a whole community mental health issue. Quite a pervading sense of negativity came over the town. People just basically were miserable. Obviously I can't compare it with living in a war zone, but I suspect at the end of a war you would sense something fairly similar. Life went from being very colourful, and when I came here, this was a very happy place. It was an amazing community in terms of their attitudes to things. They were full of beans and partying everywhere on the beaches. It was a feature of Saturday. You'd drive along and all these groups of people sitting on the waterways here, there and everywhere, the boats and all partying and having it all set up with barbecues and things and being there until all hours of the night. And you saw a massive drop-off in that. It just wasn't happening. The only centre of the community really became the footy club and the netball club. They were about the one activity that didn't seem to decrease, but all the other things, people seemed to drop out of a lot of the social groups." [Community Service Provider]

From the interviews and focus group the Lake Albert community noted that they had displayed much resilience and commitment to the area over a difficult decade. At the low point for the community when the water all but disappeared from Lake Albert, the flow-on environmental, economic and social implications were clear as illustrated on the survey graphs on the following pages.

For example the percentage rating 'lifestyle' as excellent or good has returned to the 84% of 2003 after dropping to 47% in 2008 [based on their memory of this period]. Over the same period rating of 'water levels in Lake Albert' as excellent or good moved from 67% in 2003 to 6% in 2008 and has now increased to 50%. 'Economic security' of the area has yet to return to the levels of 2003, moving from 62% rating this aspect as excellent or good in 2003, down to 20% in 2008 and 2013. This is not surprising considering the dramatic drop in dairy farms from 22 to three and the flow on to other businesses struggling with falls in employment levels and confidence. The Lake Albert community is still in a position of some economic stress.

From the survey and qualitative components of the research it was clear that something needs to be done to ensure the prosperity of the area environmentally, economically and socially. The low point around five years ago, was viewed as a valuable wake up call for the community, government and other key stakeholders that something needs to be done.

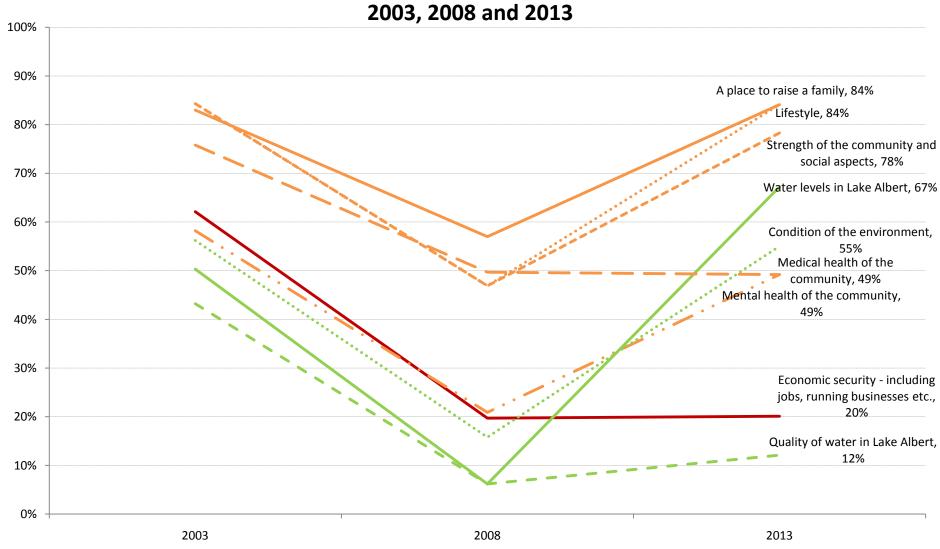
Of the nine aspects put forward in the survey, the following are the key five areas rating of poor or very concerning ...

[Ratings of poor / concerning]	2003	2008	2013
Quality of water in LA	26%	78%	49%
Water levels in LA	24%	77%	10%
Economic security	15%	52%	42%
Condition of environment	18%	59%	12%
Mental health	8%	37%	9%

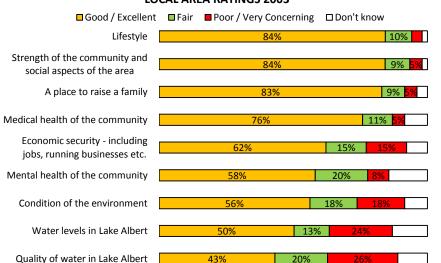


Square Holes Pty Ltd

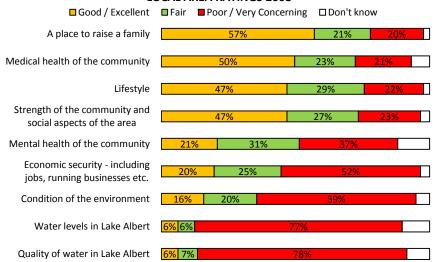
# COMMUNITY RATING ASPECTS OF AREA AS EXCELLENT OR GOOD 2003. 2008 and 2013



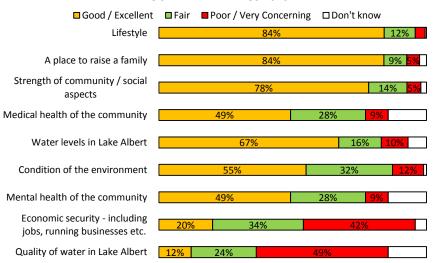
### **LOCAL AREA RATINGS 2003**



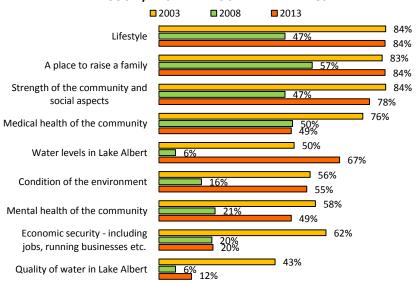
### **LOCAL AREA RATINGS 2008**



### **LOCAL AREA RATINGS 2013**



### **GOOD / EXCELLENT LOCAL AREA RATINGS**



### 2008

"We saw a marked increase in mental health problems during that time period." [Community Service Provider]

"From our point of view it started to go bad in 2005 when we couldn't irrigate." [Farmer]

"The issues were that you had to go further and further out to pump water and then the water there wasn't worth getting." [Farmer]

"I doubt there was a business in the area that actually prospered in those years, I can't think of one from 2006 to 2010. Everybody was backpedalling and pulling in their belts. That was everything not just farming." [Farmer]

### 2013

"So many people are using it, just for swimming and things. You see kids jumping off the jetty. They probably used to do it before but we'd forgotten." [Focus Group]

"...it was that quick. As soon as the water returns it changes the psyche of the community." [Community Service Provider]

"At the school we went from 278 down to 160, if there wasn't work in the dairies there was nothing to kept them here." [Focus Group]

# **Priorities for Lake Albert**

A key point was made throughout the research that the quality of water in Lake Albert has been poor for many years. Those who had lived in the area for 50 years plus talked fluently that the issue of poor quality water had existed for a long time. This included farmers and those reliant on the water for stock and cropping. Some talked about the decline in quality around 10 years ago, making the water unsuitable for stock. There had been many signs of increasing salinity levels. Those included in the qualitative research believed that study after study had been conducted over many decades, generally coming to similar conclusions that something needs to be done, yet nothing of note has eventuated.

Similarly, much conversation surrounded the water levels fluctuating over the past 50 to 100 years. A number of the older residents of the area were quite emphatic that little had changed over time. Levels had dropped to concerning levels throughout history, and a good rain or floods upstream rectify the situation.

In saying this, the point was made that the difference now is that irrigators further up the Murray River up to the Murray Darling Basin are overusing water in an irresponsible manner. While the problem exists in Lake Albert, it comes from well beyond the area.

There was a consistent view that the community of Lake Albert has been treated poorly. It was their view that both the State and Federal Governments had essentially ignored the importance and were quite prepared to see the water disappear from Lake Albert, and for the area to become a swamp land. If it hadn't been for the Lake being toxic and smelly without water, the community believe that even less interest in the area would have occurred. They have accordingly felt like they have needed to fight for survival to protect the Lake and the community.

With some frustration they discussed a level of ignorance from stakeholders unaware that water quality and levels are not sustained at a level to ensure the future survival of Lake Albert, the decay would then gradually extend to the Coorong and up the Murray River. Examples were given of illogical government policy and of some irrigators not being respectful of the need for the River to flow naturally to sea.

For a few of the older participants there was a feeling that they had seen the many cycles of nature with regard to the Lake and that eventually nature would fix the problem. This was however, dependent on adequate flows from further up the system.

"Nature in spite of everything man likes to think we can control, is quite brilliant at sorting itself out." [Fisherman]

"When they put the causeway in there, where the ferry is, they restricted the water flow. They didn't stop it completely, but they definitely restricted it. And once you restrict it, and you get natural silt that some of the water hauls, it's got shallower and shallower and shallower. Where they've got the beacons there today, through the Narrows, if you realise that they rose the Lake by nearly 18 inches, you try and get one of those paddle steamers to go through there, take 18 inches of water away, it wouldn't go anywhere. ..."[Fisherman]

"A hundred years down the track, they'll still be talking about the same thing. I'll never forget it, and it's always stuck in my head, I was only young, 15 years of age, a bloke by the name of Reg, he said to me, he said "old man – old boy," he used to say, "you started fishing," he said. "You better come to a meeting." And that meeting was held down where Smiley's Car Wash is there. It used to be a garage there, and the meeting was held in the ladies' restroom. A nice big pink restroom. And the main topic that was on that night, the very first meeting I went to, was having water come through Salt Creek again. And that's, what, 50-some years ago, 60 years ago. So that's how long it's been going on." [Fisherman]

"I think, from my memory, the early '70s and again in the early '80s, and then I think around that time I think it was pretty rough through most of the '90s. Or better – it was never really right, but better. But there had been two or three periods when it has been really quite saline, but usable. We've gone on using it, but the sort of water that – it is and has always been the most saline part of the entire Murray-Darling basin for the very simple reason that it's a pimple on a pumpkin. It's not a through-flow. And the solution is there, and it should have been implemented 50 years ago. And I sincerely hope that at this particular point in time when there is some move afoot to revitalise the whole of the Murray-Darling system and make better use of water. And, people upstream that are irrigating upstream don't want to send their good irrigation water down to us, if we're not going to make the best possible use of it. And as far as I am concerned, we're not. Because during that period when the river flow started again, and Lake Alexandrina filled up, the water that poured out to sea naturally was vastly more than is necessary to pour out to sea. It was beautiful to see it happen, but here we are, Lake Albert, right next door, and our lake was still salt. Still not stock water, still can't irrigate out of it. We went down to the mouth when it was flowing at its best, and as far as you could see out to sea and down towards Victor Harbour, and up the other way to the Kingston reef, as far as you could see, the water was murky brown river water. And all that water poured out to sea, and 20 miles down the way in Lake Albert our water was too saline. Well that is in my mind ludicrous. And it reflects very badly on the powers that be. However I do – I am very strongly of a view that this is the moment in time when there is some thought being given to that sort of thing to put the matter right."[Farmer]

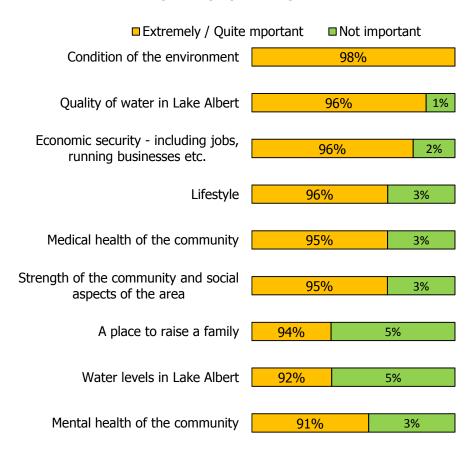
# **Areas to improve**

Amongst respondents it was considered that there was a need for improvement across all areas. After witnessing the devastating effects on the community of the demise of water in Lake Albert all aspects were considered to need to be improved, with **condition of the environment** [98%], **quality of water in Lake Albert** [96%], **economic security** [96%] and **lifestyle** [96%] the top issues to address in terms of improvement.

To continue to successfully live in the area these are key issues to address with these sentiments echoed within the qualitative discussions.

"We've got a Lake that you can play on, you can water ski and sail on and there are plenty of Carp, but if we don't do something now to try and get it back to where it was we are going to be in a worse state next time something else happens." [Focus group]

#### **IMPORTANCE OF IMPROVEMENT**



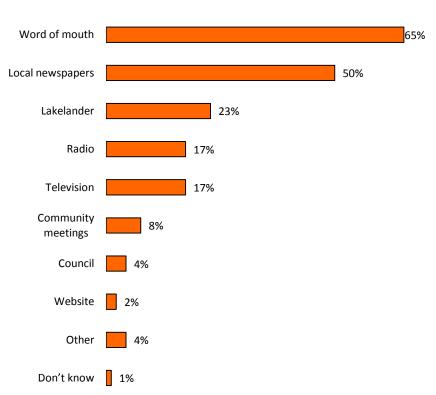
# **Management Action Plans awareness**

Half [49%] of respondents had heard about the potential Management Action Plans for Lake Albert. Over two thirds of these respondents had heard about the plans through word of mouth [65%]. Half had heard through the local newspapers [50%].

The in-depth interviews and focus groups also illustrated a strong understanding of the Management Action Plans. Little explanation of the actions was required. It was clear that they had been discussed at length, given the seriousness of the situation and longevity of the problem. The survey of the community, in-depth interviews and focus groups illustrated a consistent level of understanding of the Plans and need for something to occur irrespective of whether they were a farmer, commercial fisher, business owner, teacher, property owner or member of the community.

"I am very strongly of the view that this is the moment in time when there is some thought being given to that sort of thing to put the matter right."[Farmer]

# WHERE HAVE YOU HEARD ABOUT THE MANAGEMENT ACTION PLANS [n= 93]



# **Action Plan Support**

A strong level of consistency was noted across the stages of the research as to what needs to occur from a community perspective to rectify the problems associated with Lake Albert. Three key conclusions can be made ...

- 1. Minimal unnecessary human interference e.g. a Permanent structure in Narrung Narrows was almost universally opposed in the in-depth interviews and focus groups, and recorded the lowest level of support of the six actions in the survey of the broader community. There was a view that nature has a good way of helping yet sometimes needs a bit of help.
- 2. Something needs to be done soon. Too much investigation and pontificating has occurred for decades. The visible and invisible issues around five years ago with the water disappearing should be used as a wakeup call to get on with doing something soon to improve water quality.
- 3. There was a general level of consistency of views irrespective of their role in the community e.g. environmentalists, farmers, fishers and general members of the community had reasonably consistent views. There was little debate from within the community just a desire for something to be done for the environmental, economic and social viability of the area and for key government and other stakeholder to provide the necessary support.

The graph on the following page illustrates the level of support from the survey for each of the actions. Taking these into account with the longer in-depth interviews and focus groups the following priorities emerged ...

 Dredging of Narrung Narrows was almost universally supported as a viable way to support the natural flows. It will be essential to ensure the dredging is done in a way to support natural flows and does not result in moving from silt from one area to another, later to return the problem. In saying this, some viewed that nothing much had changed in the Narrung Narrows over history.

#### The above is viewed as the priority by the community, then if not successful try ...

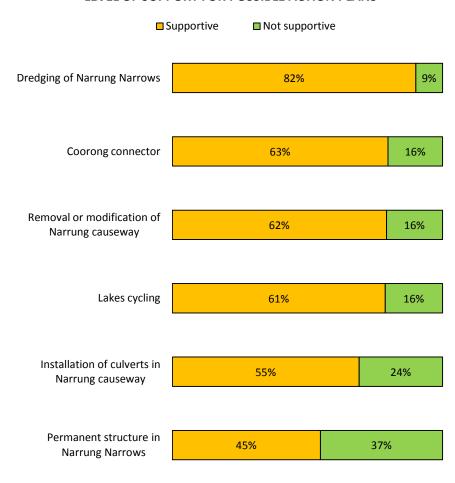
- 2. Removal or modification of Narrung causeway was also supported as it was viewed as an impediment to the natural flows. Some believed that the cost involved may not justify the end result, yet many examples [including photos throughout time] were used to illustrate the problem created by the causeway.
- 3. Conduct an environmental impact study on the Coorong connector. Most were supportive throughout the research with little strong opposition. The main issue was the environmental impact of the connector on the Coorong. Much of the issue surrounding the connector was how it would be designed and implemented and a desire to ensure that other options as above and influencing irrigators up the Murray to be more responsible and respectful in the future. Others, mainly irrigators, were of the opinion that the connector was the only viable action and others would waste time and money.

From the telephone survey, **dredging of Narrung Narrows** was the action plan for Lake Albert with the greatest support with 82% supporting this action. This was followed by **Coorong connector** [63%], **removal or modification of Narrung causeway** [62%] and **Lakes cycling** [61%].

From the focus groups and interviews there was a strong feeling of this being yet another discussion with the government of possible options. Some felt that the problem was continually being investigated but that the Government was not getting on and solving the problem. Some having been a part of the area for so long had an intricate understanding of the Lake and surrounds over time. Maintaining a water flow either through dredging or opening up the Narrung Narrows or installation of a Coorong Connector to improve water flow were generally the favoured options.

"The money that has been spent on this area in the last 10 years is phenomenal. If that money was used effectively we wouldn't be here now having this discussion." [Focus group]

#### LEVEL OF SUPPORT FOR POSSIBLE ACTION PLANS



# **Dredging of Narrung**

Narrows Dredging was the favoured option with 82% of respondents supporting this. While this option was largely supported in the focus groups and interviews there were some older participants who considered that the Narrung Narrows had always been the same, and there was no need to dredge as the Narrows would silt up again.

"It's the only thing to be done, that is first and number one priority." [Focus Group]

"I can tell you categorically that the Narrows are absolutely now what they were in the 1940's. River beds haven't increased, the channels are as deep as they ever were." [Farmer]

"The Narrung Narrows is an artificially narrow waterway.

Sometime a long, long time ago, and mate, you'd have to – I did read once when they first did it. It's around about a half or a third of what it used to be." [Community service provider]

# **Removal or modification of Narrung causeway**

From the survey this was supported by almost two thirds of respondents [62%]. With further clarification from the focus groups and interviews this option would need to be in conjunction with a bridge over the Narrows, which was acknowledged as increasing expense.

"I personally would remove the damn thing. I think it's a ridiculous thing. It creates a problem by removing it which is that the Raukkan Aboriginal community need it to get to Murray Bridge, otherwise coming via Meningie adds about a half an hour to their trip." [Community service provider]

"The primary issue is to open up the Narrows and get the water flowing backwards and forwards more appropriately." [Focus group]

"When they put the causeway in there where the ferry is they restricted the water flow." [Focus Group]

# **Coorong Connector**

The idea of a Coorong connector was supported by 63% of respondents. The connector was considered to make water flow through Lake Albert rather than be a dead end, thereby improving water quality with the possibility of increasing the quality to that similar to Lake Alexandrina.

"There would be one thing that would bring Lake Albert to as good as you're ever going to get it. And that would be the connector through to the Coorong, so that Lake Albert would then become a through system instead of a dead end." [Farmer]

"It would work for the lake. Once you remove that water, there's only one other level of water that could come in and that's from Lake Alexandrina which has got good water. So you'd definitely fix this lake and take the salinity out of it." [Farmer]

However, there was some feeling that by removing water via irrigation this would have the same effect with little of the cost.

"I know a lot of people have talked about that. I can see some of the logic in that, but now that some of the farmers are putting in irrigation and taking out water so more can flow in so it kind of cancels out spending a fortune on the connector. It is doing the same sort of thing, so moving some water out so that more can come in." [Fisherman]

"An obvious – it is an obvious thing to do [connector]. To me it's so obvious. It is so obvious that one wonders why there is so much discussion, I think the reason in my mind why there is so much discussion is, it's a fairly expensive exercise. And no governments want to spend money. And you can understand why that should be, too, fully understand it. All the other options that had been looked at would be unproductive, but much cheaper. And anyone wanting to do something as cheap as they can possibly manage to get away with, but it will achieve nothing. The only other options would achieve absolutely nothing. But that would be much more expensive, but it need only be done once. It will be there for future generations."[Farmer]

# **Lakes Cycling**

While supported by 61% of survey respondents, this option was viewed negatively amongst some of the group and interview participants. Those that did consider that this would be of some benefit expressed that it would need to be conjunction with a connector to the sea.

"It doesn't work and it never has." [Focus Group]

"That would only work of course if they then build those connections to the sea that they've talked about for years at the southern end of the south lagoon, to channel it back out, as well as that idea of running some of the southern causeway waterways back into the southern channel to get a little bit more freshwater flowing into the south. That would certainly work, because certainly water cycling is critical and history tells us that this lake did that quite a lot." [Farmer]

# **Installation of culverts in Narrung causeway**

Just over half [55%] supported this option. From the qualitative discussion this action plan was considered part of a permanent structure in Narrung Narrows and was generally one of the least supported options. There was also some confusion as to what culverts were and hence an inability to comment.

# **Permanent structure in Narrung Narrows**

This option was supported by less than half or respondents [45%]. There was some feeling from the groups and interviews that this would be used to stop water from entering the Lake therefore making the problem worse, with the potential death of Meningie as a commercial centre.

# "No. That's a simple one. Absolutely no way, Jose."

"That's a simple one. Absolutely no way Jose. If you put something across there, Lake Alex dies. Lake Albert will die. If you try to artificially control it, you will get no flow across it. You might even keep the water level up, but basically the water in the lake will die and with it the fish, then the birds and everything else."

[Community Service Provider]

"You'd finish up with a worse situation than what you've got now. A permanent water regulating structure controlled by who?"
"From what I understand I don't think that would work because it is more about the water quality than the water level. You are just blocking it off so it will become saltier and saltier." [Farmer]

# **Other suggestions**

The main suggestion to emerge outside the listed plans was to continually push for upper Murray River solutions. With less water removed upstream, more would naturally flow into Lake Albert. However, the politics involved in this solution was well acknowledged.

"The important thing from our perspective is that the Government recognises that there has to be a minimum flow into South Australia and at all times."

"We have to get the water across the border before any of this is going to be effective." [Farmer]

Alternatively, was the feeling that nature would take care of the Lake and that without other involvement it would eventually heal itself. This however was also dependent upon adequate water flow into the system.

"Nature is in spite of everything man likes to think we can control, is guite brilliant at sorting itself out." [Fisherman]

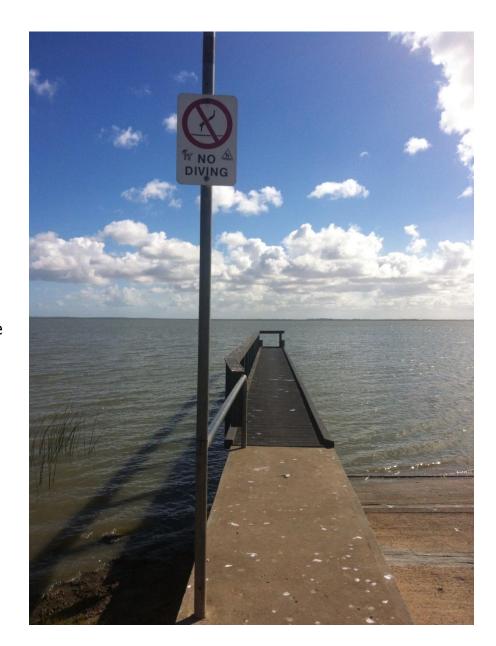
"The whole river system has been over-exploited. Less so, I think, in South Australia, because in 1967 it was a total ban put on any further irrigation. You were able to go on, I remember it very well. We were still expanding at the time, in 1967, no further irrigation. Two years later, in 1969, we were able to – those who had less than 50 acres were able to expand their systems to 50, and that became the limit. And then a few years later, I can't remember when - in the early '70s, this 50 acres was translated into kilolitre spaces, and we put meters in. So you were allocated, if you had, you had your 50 acres. I think you were allocated, we used to talk acre feet in those days - I think you were entitled to five acres – five feet – five feet per acre of water. And that of course was then translated into kilolitres. And that – and then we were limited to the amount of water – which was a much better system, of course – that we were able to expand our irrigation if we were economical in the way we used it, and used it carefully. And then a little later on of course, water trading came into the business, and we were able to buy and sell, buy water from upstream. And then of course the whole system did rather break down this limitation that had been put on, on the amount of water to be extracted, because of course people, if you can buy your water, you are as safe as you want to be, and water was traded up and down the length of the river. A very good system, but this really came to an end when full scale water trading came into existence. But as far as I am concerned, the whole system was inevitably over-exploited. People, if the water was there, why not use it, and most seasons it is there. But you have to allow for the fact that it is not always there. We have a very unreliable and variable climate. And it has ever been thus. So in my lifetime I've been through five seasons that I would see as droughts. And same applies with the watersheds." [Farmer]

# **Further Comments**

Respondents were provided the opportunity to make further comment on completion.

Comments included:

- 1. 21% water quality/ salinity issues
- 2. 12% health of the lake is vital for the community
- 3.9% need to ensure that water comes down the Murray from interstate
- 4. 9% leave it to nature
- 5.8% need more detail about the plans
- 6.7% need to ensure money is spent wisely

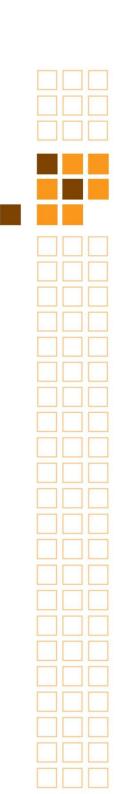


"This was the place to be sacrificed to protect other places. And that wasn't just paranoia, it actually was what they were doing. It was, well, we've got no water. Where do we take – where do we stack up enough water to keep Adelaide supplied, to keep the Riverland going, because they're really noisy politically. And then of course the other states are doing their own thing. And so the day that the then-Premier stood up basically saying we've stopped water flowing into the two Great Lakes, and Meningie would've been the one to suffer the most. And it was obvious to the people that this place essentially was considered for the high jump. There was talk about it never being reopened, actually blocking off Lake Albert and letting it dry out. They had a lovely euphemism for it. They referred to it as a seasonal wetland, which is code for swamp. Essentially dam it off and whatever water falls on it, it can have and then it can dry out. Ephemeral is the other term they used. Ephemeral wetland is a favourite term of David Paton, the researcher, or as we'd describe it, a swamp. And at the same time, the Government was protecting the Riverland. Karlene Maywald was the Minister, so politically she was going to protect orchard-growers and the vineyards, and this community realised quite quickly that there was not going to be that for here. This place was for the high jump. If they couldn't get the water back at some point, this was the one to be sacrificed. And unlike at the same time – because this is about the time when Mitsubishi fell over and of course the State Government rushed in, but literally millions and millions of dollars for the 1,500 workers or 1,000 workers or whatever it was that they had. And because they were concerned it would increase unemployment in southern Adelaide by half of 1%, but actually Meningie had already dropped its employment by over 20%. And there was no suggestion from any government minister coming down here that there was going to be any sort of bailout or re-education package for the community of Meningie. We weren't politically seen as important. And I'm not saying that to be politically pejorative. It's just a statement of what actually happened." [Farmer]

# **Respondent Profile**

Demographics	Total				
Demographics	[n=189]				
Age					
25-30	2%				
31-39	5%				
40-54	25%				
65+	44%				
Gender					
Male	41%				
Female	59%				
Postcode					
5264	75%				
5259	25%				
Annual household income					
Up to \$20,000	19%				
\$20,001 to \$40,000	21%				
\$40,001 to \$60,000	21%				
\$60,001 to \$80,000	7%				
\$80,001 to \$100,000	7%				
More than\$100,001	7%				

Which best describes you	
Farmer in the area	27%
Commercial Fisherman in the area	3%
Local business owner	10%
Member of Community group	26%
Work in the area	16%
Recreation user of the lake	2%
Household composition	
Young family, all children primary school aged or younger	13%
Middle family, children at high school	5%
Mature family, children at home older than high school	12%
Mature couple	49%
Mature person	20%
Aboriginal Background	
Yes	3%
No	97%



# **Appendices**

# Lake Albert – In-depth discussion guide [P/N 130302]

-						
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- □ Purpose of research to understand general attitudes regarding potential management actions for Lake Albert
   □ Series of in-depth interviews with different types of people from the area
- ☐ Open and honest opinions are essential
- □ Confidentiality is assured, recordings only used for preparing the report

# Who are they!

- □ Participants will be asked to introduce themselves, including who they are, what they do
- ☐ Why they live in the area
- What does Lake Albert mean to you? [There will be more specific discussion later in the group regarding management options ]

# Social, environmental and economic perspectives

- □ How do you consider the area in terms of a social perspective, now and how was it 5 to 10 years ago? [ensure cover pre drought for each]
- ☐ How do you consider the area in terms of the environment, now and how was it 5 to 10 years ago?
- $\square$  How do you consider the area from an economic perspective, now and how was it 5 to 10 years ago?
- ☐ What are the priorities moving forward?
  - Socially
  - Environmentally
  - Economically

# Discussion of Potential Lake Albert and Narrung Narrows management actions

- Where have they heard about potential management plans for Lake Albert [source of information]:
  - Media, local newspaper
  - Lakelander
  - Word of mouth
  - Other
- ☐ [without prompting] What are your views/ level of interest in the plans?
  - Why is this important for you , work, important for tourism ,etc
  - Is it necessary to do anything at all?

# The options for consideration

	Outline the proposed options on paper, short paragraph each with room for participants to provide short comments below
	[from Theresa]
	Discuss each option independently including:
	<ul> <li>Positives</li> </ul>
	<ul> <li>Negatives</li> </ul>
	How does it impact, social, environmental, economic perspectives of the area?
	What are the priority strategies/ What needs to be done? [10 minutes]
	• Your perspective
	Overall perspective
	Why is this so important to the area?
W	/hat next?
	Final comments
	Thank participants for their time
_	mank participants for their time

# **Lake Albert – Session Guide [P/N 130302]**

In	ntroduction
	Purpose of research - to understand general attitudes regarding potential management actions for Lake Albert
	Series of two 90 minute focus groups with different types of people
_	Open and honest opinions are essential
	Confidentiality is assured, recordings only used for preparing the report
W	ho are they! [10 minutes]
	Participants will be asked to introduce themselves, including who they are, what they do
	Why they live in the area
	What does Lake Albert mean to you? [There will be more specific discussion later in the group regarding management options ]
So	ocial, environmental and economic perspectives [20 minutes]
	How do you consider the area in terms of a social perspective, now and how was it 5 to 10 years ago? [ensure pre drought is discussed for each]
	How do you consider the area in terms of the environment, now and how was it 5 to 10 years ago?
	How do you consider the area from an economic perspective, now and how was it 5 to 10 years ago?
	What are the priorities moving forward?
	<ul> <li>Socially</li> </ul>
	<ul> <li>Environmentally</li> </ul>
	<ul> <li>Economically</li> </ul>
Di	iscussion of Potential Lake Albert and Narrung Narrows
m	anagement actions [15 minutes]
	Where have they heard about potential management plans for Lake Albert [source of information]:
	<ul> <li>Media, local newspaper</li> </ul>
	<ul> <li>Lakelander</li> </ul>
	<ul> <li>Word of mouth</li> </ul>

☐ [without prompting] What are your views/ level of interest in the plans?

Is it necessary to do anything at all?

Other

# The options for consideration [30 minutes]

	Outline the proposed options on paper, short paragraph each with room for participants to provide short comments below
	[from Theresa]
	Discuss each option independently including:
	<ul> <li>Positives</li> </ul>
	<ul> <li>Negatives</li> </ul>
	How does it impact, social, environmental, economic perspectives of the area?
	Are there other options to be explored?
	What are the priority strategies/ What needs to be done? [10 minutes]
	Your perspective
	Overall perspective
	Why is this so important to the area?
	-
W	/hat next? [5 minutes]
	Final comments
	Thank participants for their time
	····

# LAKE ALBERT COMMUNITY PERCEPTIONS QUESTIONNAIRE [P/N 130302]

**LEGEND** 

# Responses in lowercase are unprompted PECASE ARE READ OUT Text in bold lowercase are interviewer instructions M = Multiple Text in bold lowercase are interviewer instructions Response

S = Single Response

GOOD MORNING/AFTERNOON/EVENING. MY NAME IS ....... FROM SQUARE HOLES [A SOUTH AUSTRALIAN BASED RESEARCH COMPANY]. WE ARE CONDUCTING A RESEARCH STUDY AS PART OF THE LAKE ALBERT SCOPING STUDY. THE INTERVIEW IS QUITE SIMPLE, AND IS ONLY TAKING AROUND 5 TO 10 MINUTES TO COMPLETE.

### If necessary say:

- □ WE ARE CONDUCTING INTERVIEWS WITH A RANDOM SELECTION OF HOUSEHOLDS AROUND LAKE ALBERT.

  YOUR NUMBER WAS SELECTED FROM THE WHITE PAGES.
- □ WE ARE NOT SELLING ANYTHING. THE INTERVIEW WILL BE FOR RESEARCH PURPOSES ONLY AND WE HAVE STRICT INDUSTRY GUIDELINES TO PROTECT YOUR PRIVACY.
- □ YOUR RESPONSES WILL REMAIN CONFIDENTIAL. YOUR ANSWERS WILL BE STORED IN A DATA-FILE SEPARATE TO YOUR PERSONAL DETAILS. WE ARE MORE INTERESTED IN THE PERCENTAGE OF PEOPLE WITH PARTICULAR OPINIONS.
- □ SQUARE HOLES IS BOUND BY THE STRICT CODE OF PROFESSIONAL BEHAVIOUR OF THE AUSTRALIAN MARKET AND SOCIAL RESEARCH SOCIETY, AND MEETS THE REQUIREMENTS OF THE NEW PRIVACY LEGISLATION.

THIS CALL MAY BE MONITORED BY MY SUPERVISOR FOR QUALITY CONTROL.

### Screener:

WHICH POSTCODE DO YOU LIVE IN ...?

**Continue** 1 5264 2 5259

**Terminate** 3 Other postcodes



# 1. HOW LONG HAVE YOU LIVED IN THE AREA? S

1	Less than 12 months	5	10 to 20 years
2	1 to 2 years	6	20 to 50 years
3	2 to 5 years	7	More than 50 years
4	5 to 10 years	8	Don't know

# 2. WHAT THE MAIN REASONS YOU LIVE IN THE AREA... M / unprompted

1	Family live here	9	Children go to school here
2	Employment	10	Have lived here for a long time
3	The lifestyle	11	Own a business in the area
4	Fishing	12	Own farm in the area
5	Boating	13	Cheap homes
6	Love Lake Albert	14	Lower cost of living
7	Can't sell my home / real estate in	15	Other [specify]
	area		
8	Friends live here	16	Don't know

# 3. WHAT DOES LAKE ALBERT MEAN TO YOU? **M / unprompted**

1	Essential to the area / the heart of the	5	Part of my culture
	community / emotion and mood of the	6	Irrigation
	community	7	Natural environment
2	Recreation	8	Other [specify]
3	Fishing/ boating		
4	Provides employment	9	Don't know/ don't care

# 4. WHAT DON'T YOU LIKE ABOUT THE AREA? **M / unprompted**

1	High unemployment / low job security	9	Schools not big enough
2	Nothing to do	10	Environment is worsening
3	Depressed local economy	11	Local economy is worsening
4	Lake water levels not good	12	Community / social aspects worsening
5	Lake water quality not good	13	Other [specify]
6	Hard to run a business here		
7	Facilities and infrastructure needs	14	Don't know
	upgrading	ı	

# **5.** HOW LIKELY ARE YOU TO BE LIVING IN THE AREA IN 5 YEARS?

8 Isolated / too far from other places

1	EXTREMELY LIKELY	4	EXTREMELY UNLIKELY
2	QUITE LIKELY	5	Neutral / Don't know
3	QUITE UNLIKELY		l



**6.** HOW WOULD YOU RATE THE FOLLOWING ASPECTS OF THE LOCAL AREA 'NOW' – IN <u>2013</u>? FOR EACH USE THE SCALE EXCELLENT, GOOD, FAIR, POOR AND VERY CONCERNING.

## S - Rotate order

	EXCELLENT	GOOD	FAIR	POOR	VERY CONCERN- ING	Don't know
QUALITY OF WATER IN LAKE	1	2	3	4	5	6
ALBERT						
WATER LEVELS IN LAKE ALBERT	1	2	3	4	5	6
ECONOMIC SECURITY INCLUDING	1	2	3	4	5	6
JOBS, RUNNING BUSINESSES ETC						
A PLACE TO RAISE A FAMILY	1	2	3	4	5	6
LIFESTYLE	1	2	3	4	5	6
CONDITION OF THE	1	2	3	4	5	6
ENVIRONMENT						
STRENGTH OF THE COMMUNITY	1	2	3	4	5	6
AND SOCIAL ASPECTS OF THE						
AREA						
MENTAL HEALTH OF THE	1	2	3	4	5	6
COMMUNITY						
MEDICAL HEALTH OF THE	1	2	3	4	5	6
COMMUNITY						

7. If lived in area 10+ years ago in Q1: THINKING BACK TO 2003, HOW WOULD YOU RATE THE SAME ASPECTS OF THE LOCAL AREA BACK THEN? [FOR EACH USE THE SCALE EXCELLENT, GOOD, FAIR, POOR AND VERY CONCERNING.]

# S – Rotate order

	EXCELLENT	GOOD	FAIR	POOR	VERY CONCERN- ING	Don't know
QUALITY OF WATER IN LAKE	1	2	3	4	5	6
ALBERT						
WATER LEVELS IN LAKE ALBERT	1	2	3	4	5	6
ECONOMIC SECURITY INCLUDING	1	2	3	4	5	6
JOBS, RUNNING BUSINESSES ETC						
A PLACE TO RAISE A FAMILY	1	2	3	4	5	6
LIFESTYLE	1	2	3	4	5	6
CONDITION OF THE	1	2	3	4	5	6
ENVIRONMENT						
STRENGTH OF THE COMMUNITY	1	2	3	4	5	6
AND SOCIAL ASPECTS OF THE						
AREA						
MENTAL HEALTH OF THE	1	2	3	4	5	6
COMMUNITY						
MEDICAL HEALTH OF THE	1	2	3	4	5	6
COMMUNITY						



**8. If lived in area 5+ years ago in Q1:** THINKING BACK TO <u>2008</u>, HOW WOULD YOU RATE THE SAME ASPECTS OF THE LOCAL AREA BACK THEN? [FOR EACH USE THE SCALE EXCELLENT, GOOD, FAIR, POOR AND VERY CONCERNING.]

## S - Rotate order

	EXCELLENT	GOOD	FAIR	POOR	VERY CONCERN- ING	Don't know
QUALITY OF WATER IN LAKE	1	2	3	4	5	6
ALBERT						
WATER LEVELS IN LAKE ALBERT	1	2	3	4	5	6
ECONOMIC SECURITY INCLUDING	1	2	3	4	5	6
JOBS, RUNNING BUSINESSES ETC						
A PLACE TO RAISE A FAMILY	1	2	3	4	5	6
LIFESTYLE	1	2	3	4	5	6
CONDITION OF THE	1	2	3	4	5	6
ENVIRONMENT						
STRENGTH OF THE COMMUNITY	1	2	3	4	5	6
AND SOCIAL ASPECTS OF THE						
AREA						
MENTAL HEALTH OF THE	1	2	3	4	5	6
COMMUNITY						
MEDICAL HEALTH OF THE	1	2	3	4	5	6
COMMUNITY						

**9.** HOW IMPORTANT IS IT THAT SIGNIFICANT IMPROVEMENTS FROM WHAT EXISTS NOW ARE MADE IN EACH OF THESE AREAS BACK THEN? PLEASE USE THE SCALE EXTREMELY IMPORTANT, QUITE IMPROVEMENT, NOT IMPORTANT AND NOT AT ALL IMPORTANT.

## S - Rotate order

	EXTREMEY IMPORTANT	QUITE IMPORTANT	NOT IMPORTANT	NOT AT ALL IMPORTANT	Don't know
QUALITY OF WATER IN LAKE ALBERT	1	2	3	4	5
WATER LEVELS IN LAKE ALBERT	1	2	3	4	5
ECONOMIC SECURITY INCLUDING	1	2	3	4	5
JOBS, RUNNING BUSINESSES ETC					
A PLACE TO RAISE A FAMILY	1	2	3	4	5
LIFESTYLE	1	2	3	4	5
CONDITION OF THE ENVIRONMENT	1	2	3	4	5
STRENGTH OF THE COMMUNITY AND	1	2	3	4	5
SOCIAL ASPECTS OF THE AREA					
MENTAL HEALTH OF THE	1	2	3	4	5
COMMUNITY					
MEDICAL HEALTH OF THE	1	2	3	4	5
COMMUNITY					



# 10. HAVE YOU HEARD ANYTHING ABOUT POTENTIAL MANAGEMENT ACTION PLANS FOR LAKE ALBERT AND NARRUNG NARROWS? **S**

	1	Yes
Go to Q12	2	No
	3	Don't know

11.	WHERE HAVE YOU SEEN OR HEARD IT? M	/ unprompted



**12.** TO FOLLOW ARE FIVE POSSIBLE ACTION PLANS BEING <u>INVESTIGATED</u>. FOR EACH, PLEASE INDICATE YOUR LEVEL OF SUPPORT? ONE OF THE MAIN REASONS FOR THIS SURVEY IS TO UNDERSTAND THE LEVEL OF SUPPORT FOR EACH.

# S – Rotate order

	EXTREMELY SUPPORTIVE	SUPPORT	DO NOT SUPPORT	STRONGLY OPPOSE	Don't know
DREDGING OF NARRUNG NARROWS.	1	2	3	4	5
THIS MANAGEMENT ACTION INVOLVES					
DREDGING STRATEGIC AREAS WITHIN					
NARRUNG NARROWS TO ACHIEVE					
GREATER WATER EXCHANGE BETWEEN					
THE TWO LAKES.					
REMOVAL OR MODIFICATION OF	1	2	3	4	5
NARRUNG CAUSEWAY. COMPLETE OR					
PARTIAL REMOVAL OF NARRUNG					
CAUSEWAY.					
THE INSTALLATION OF CULVERTS IN	1	2	3	4	5
NARRUNG CAUSEWAY TO ENHANCE					
WATER EXCHANGE BETWEEN THE TWO					
LAKES THROUGH NARRUNG NARROWS.					
LAKES CYCLING. MANIPULATION OF	1	2	3	4	5
LAKE LEVELS THROUGH BARRAGE					
OPERATION TO ENCOURAGE SALT					
EXPORT FROM LAKE ALBERT.					
PERMANENT STRUCTURE IN	1	2	3	4	5
NARRUNG NARROWS. THE					
INSTALLATION OF A PERMANENT WATER					
REGULATING STRUCTURE IN THE					
NARROWS TO ALLOW FOR IMPROVED					
WATER LEVEL MANAGEMENT IN LAKE					
ALBERT					
COORONG CONNECTOR.	1	2	3	4	5
INSTALLATION OF A PIPELINE OR					
CHANNEL TO ALLOW WATER TO BE					
TRANSFERRED FROM LAKE ALBERT TO					
THE COORONG.					

If codes 1-3 or 5 in all five of Q12 go to Q18



13.		DGING OF NARRUNG NARROWS? M / unprompted
	1	Not necessary
	2	Hasn't changed ever
	3	The area will be silt up again and the problem will return
	4	Other [specify]
	5	Don't know
14.	If 'st	rongly oppose' Removal or modification of Narrung causeway: 'WHY ARE YOU 'STRONGLY
	OPPO	OSED' TO REMOVAL OR MODIFICATION OF NARRUNG CAUSEWAY? M / unprompted
	1	Not necessary
	2	Not the problem
	3	Ferry service implications
	4	Other [specify]
	5	Don't know
15.	THRO 1 2	DUGH BARRAGES? M / unprompted  Doesn't work  Too slow to work
	3	Not natural
	4	Other [specify]
	5	Don't know
16.		rongly oppose' Permanent Structure in Narrung Narrows: 'WHY ARE YOU 'STRONGLY OSED' TO A PERMANENT STRUCTURE IN NARRUNG NARROWS? M / unprompted
	1	Too much interference with nature
	2	Will not work
	3	Would not be managed effectively
	4	Other [specify]
	5	Don't know



# 17. **If 'strongly oppose' Coorong Connector:** 'WHY ARE YOU 'STRONGLY OPPOSED' TO THE COORONG

# CONNECTOR? M / unprompted

- 1 Impact on Coorong environment
- 2 Too expensive
- 3 Little benefit
- 4 Impact on Lake Albert environment
- 5 Don't understand
- 6 Need economic impact study
- 7 Need environmental impact study
- 8 Other [specify]
- 9 Don't know

#### 18. DO YOU HAVE A FURTHER COMMENT YOU WOULD LIKE TO MAKE IN RELATION TO LAKE ALBERT?

- Other [specify]
- 2 No / don't know

NOW JUST A COUPLE OF DETAILS ABOUT YOURSELF FOR ANALYSIS PURPOSES...

## 19. Record gender: S

- 1 Male
- 2 Female

## 20. IN WHICH OF THESE AGE GROUPS DO YOU FALL?

1	18-24	5	55-64
2	25-30	6	65+
3	31-39	99	Refused
4	40-54	'	

# 21. WHICH OF THE FOLLOWING DESCRIBES YOU?

- 1 FARMER IN THE AREA
- 2 COMMERCIAL FISHER IN THE AREA
- 3 LOCAL BUSINESS OWNER [OTHER THAN FARMING OR FISHING]
- 4 MEMBER OF COMMUNITY GROUPS
- 5 WORK IN THE AREA
- 6 RECREATION USER OF THE LAKE
- 7 None of these



			square holes	
22. WHICH	OF THE FOLLOWING BEST DESCRIBES YOUR HOUSEHOLD	СОМР	OSITION?	
1	YOUNG SINGLE PERSON LIVING ALONE			
2	YOUNG SINGLE COUPLE			
3	YOUNG COUPLE			
4	YOUNG FAMILY, WITH ALL CHILDREN PRIMARY SCHOOL	AGED	OR YOUNGER	
5	MIDDLE FAMILY, WITH CHILD STILL LIVING AT HOME HIG	GH SC	HOOL AGED OR OLDER	
6	MATURE FAMILY, WITH ALL CHILDREN LIVING AT HOME	OLDE	R THAN HIGH SCHOOL AGE	
7	MATURE COUPLE			
8	MATURE PERSON			
	BRACKET WOULD YOUR ANNUAL HOUSEHOLD INCOME FALI			
1	- F 7 7	6	\$100,001 to \$150,000	
2	1 -7 1 -7	7	More than \$150,000	
3	1 2/22 22 (2.2/22)	8	Refused	
4	( · · · · · · · · · · · · · · · · · · ·	9	Don't know	
5	\$80,001 to \$100,000			
24 ΔRF VΩ	U FROM AN ABORIGINAL BACKGROUND?			
21. AKL 10 1	Yes			
2	No			
_				
FOR VALIDA	TION PURPOSES BY MY SUPERVISOR, COULD I JUST ASK Y	OUR F	FIRST NAME AND GET A CONTACT	
	IBER AND EMAIL ADDRESS PLEASE.			
		7		
Name				
		1		
Phone				
		1		
Email				
		_		
ON BEHALF	OF LAKE ALBERT SCOPING STUDY, DEWNR AND SQUARE I	HOLES	I THANK YOU FOR YOUR TIME AND	
COMMENTS. YOUR VIEWS COUNT.				
If necessar	y: IF YOU HAVE ANY QUERIES YOU CAN CALL THE INDUST	ΓRY'S Ι	FREE SURVEY LINE ON 1300 364830	
		_		
=	at this is a true, accurate and complete interview, co			
standards and the AMSRS Code of Professional Behaviour [ICC/ESOMAR]. I will not disclose to any				
other perso	on the content of this questionnaire or any other info	rmati	on relating to this project.	

Signature: ...... Date: ...... ID: