

**MARINE RESERVE IMPLEMENTATION:  
PILBARA**

**AN ANALYSIS OF ISSUES  
RELATING TO THE  
PROPOSED DAMPIER ARCHIPELAGO/CAPE PRESTON  
MARINE CONSERVATION RESERVE**

**REPORT: MRI/PI/DAR – 47/2000**

A collaborative project between CALM Marine Conservation Branch and CALM Karratha  
Regional Office

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## EXECUTIVE SUMMARY

The Western Australian Government is committed to full and open consultation before areas are declared as marine conservation reserves and there is a statutory requirement for public participation in the planning process. An issue analysis is undertaken at the commencement of the public participation process (PPP). An issue analysis is the term used to describe the task of undertaking and analysing discussions between CALM staff and representatives from the wide range of interest and user groups within the community. The information obtained from the discussions is used to: identify community visions and aspirations; assess community attitude; estimate levels of knowledge and understanding; and identify the issues and concerns within the community in regard to marine conservation reserves.

An analysis of issues relating to the proposed Dampier Archipelago/Cape Preston marine conservation reserve was undertaken during April and May 2000. Face-to-face and telephone discussions were conducted with 164 people from a wide range of interest and user groups and the results of these discussions can be summarised as follows:

- The majority of people have a receptive attitude towards the marine reserve proposal and there is no need to implement strategies to specifically address negative attitudes within the community.
- Members of the conservation, science and education sectors have an adequate knowledge and understanding of the marine reserve concept and planning process. All other sectors of the community including recreational and commercial users have an inadequate knowledge and understanding to participate effectively in the planning process and a broadly based education program is required to assist them.
- Community hopes and aspirations for the proposed reserve varied but perhaps the most broadly supported vision is one in which the natural resources are sustainably managed and available for enjoyment and use. Many people felt that the islands should remain much as they are now but that there is room for some low key tourist facilities. Many people anticipate further industrial development on the adjacent mainland coast although some indicated they did not support further industrial expansion.
- The community is hoping for balance and equity in zoning outcomes and for Government agencies to work effectively together in managing the area.
- Some of the most frequently identified issues that concerned members of the community related to environmental degradation and the need for sustainable management. Clearly some environmental degradation is already apparent to members of the community and, on the whole, they would like to see this degradation arrested and repaired.
- Low levels of community ownership associated with its transient workforce and previous negative experiences with Government public participation processes have left many members of the community feeling powerless and cynical that decisions will be made by powerful sectors behind closed doors. To counter these sentiments and to ensure that individuals have an effective voice, the planning process must be open, with clear and active communication pathways between decision makers on the community advisory committee and community members at grass roots level. In addition, rationales for decisions need to be broadly distributed and explained.

- The public participation program will need to encourage members of the community and be easily accessible to members of the community who may be reluctant to participate in planning because:
  - there is cynicism towards the process;
  - many people are just too busy; and
  - many do not feel a sense of ownership, or long term responsibility, for their local environment.
- The timing of the Dampier Archipelago/Cape Preston Marine Conservation Reserve planning process coincides with Aboriginal land claim negotiations. This complicates Aboriginal involvement in the reserve planning process.



## INTRODUCTION

The Western Australian Government is committed to the conservation of our marine environment and the sustainable use of our natural resources. A major component of the State's marine conservation and management strategy is the establishment of a statewide system of marine conservation reserves.

Most Western Australian marine conservation reserves cater for a range of recreational and commercial activities. They reflect a balanced approach by preserving representative and special ecosystems, while providing a management framework to ensure that human usage is managed in an equitable, integrated and sustainable manner.

In 1994, the Marine Parks and Reserves Selection Working Group published a report entitled *A Representative Marine Reserve System for Western Australia*. This report identified about 70 areas around the Western Australian coast as being worthy of further consideration for reserve status under the CALM Act. In December 1997, the Western Australian Government announced that the Dampier Archipelago/Cape Preston region was a priority candidate area (figure 1). Since that date an assessment has been undertaken to determine the area's marine resources and commercial and recreational uses. Details of this assessment are outlined in the *Dampier Archipelago/Cape Preston Regional Perspective Paper*.

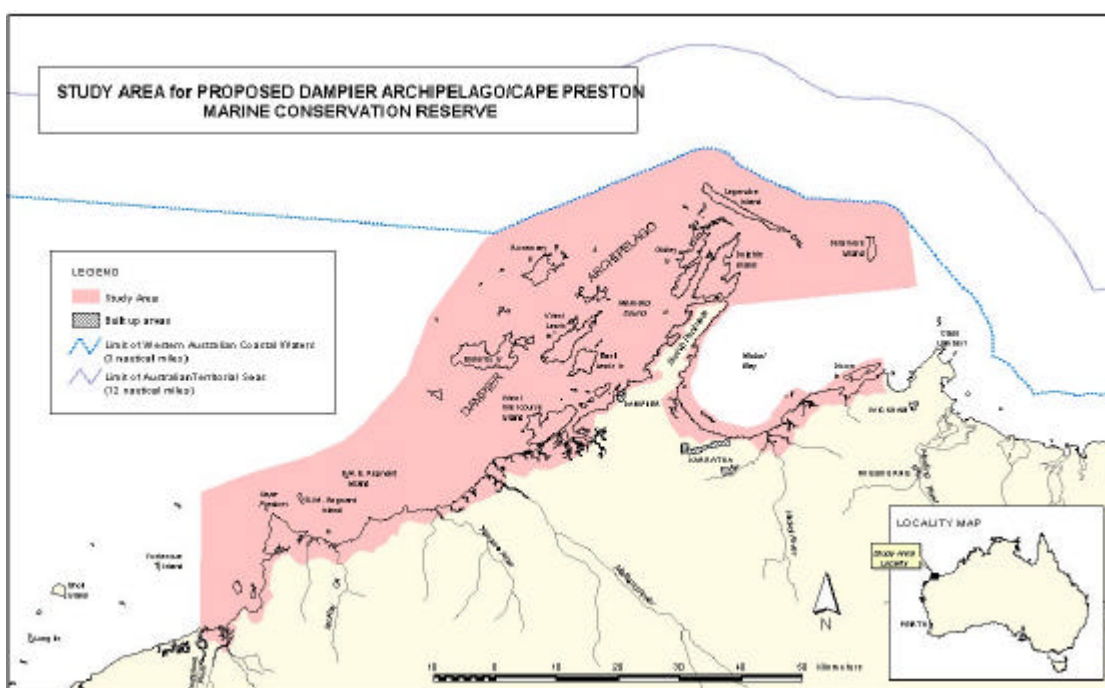


Figure 1: Study area of the proposed Dampier Archipelago/Cape Preston marine conservation reserve.

The Western Australian Government is committed to full and open consultation before areas are declared as marine conservation reserves and there is a statutory requirement for public participation in the planning process. The **goal** of the public participation program (PPP), in the planning and management of Western Australian marine conservation reserves is to develop community ownership, stewardship, and understanding of marine conservation reserves. The **objective** of the PPP is to encourage and facilitate effective public involvement in the planning process and in day-to-day management of the reserve once it is established.

An overview of the stages and strategies associated with the PPP in marine reserve planning and management is provided in the document *Draft Operational Procedures for Public Participation in Marine Conservation Reserves* and is summarised in Table 1.

**Table 1. Summary of public participation process for Western Australian marine conservation reserves.**

PPP Phase	PPP Task
1. Initial public consultation	<ul style="list-style-type: none"> <li>• Establish community contacts data base</li> <li>• Provide information about the reserve concept and planning process to key individuals, organisations and groups</li> <li>• Facilitate planning advisory committee process</li> <li>• Undertake an analysis of issues</li> <li>• Prepare public consultation plan (based on results of the issue analysis)</li> </ul>
2. Pre –notice of intent to declare reserve	<ul style="list-style-type: none"> <li>• Facilitate the development of guidelines for the community planning advisory committee</li> <li>• Formulate consultation partnerships with key interest and user groups</li> <li>• Develop and distribute information and educational material</li> <li>• Facilitate broad community input into the reserve planning process</li> </ul>
3. Post –notice of intent to declare reserve	<ul style="list-style-type: none"> <li>• Produce and distribute the draft plan plus summaries and explanatory information</li> <li>• Facilitate the preparation of public submissions</li> <li>• Prepare a report summarising public submissions</li> </ul>
4. Gazetted marine conservation reserve	<ul style="list-style-type: none"> <li>• Establish community management advisory committee</li> <li>• Facilitate the establishment of friends group</li> <li>• Support on-going community extension program</li> </ul>

Phase 1 of the PPP includes an *issue analysis*, which is the subject of this report. The term ‘issue analysis’ is used to describe the task of undertaking and analysing discussions between CALM staff and representatives from the wide range of interest and user groups within the community. The objective of the issue analysis is to develop a community profile by:

- **Identifying community visions and aspirations in relation to marine conservation and management;**
- **Assessing community attitudes towards the marine reserve proposal** - Before members of the community can have effective input into the reserve planning process they need to be receptive to the general aims of the proposal. People who are not receptive will generally not consider other points of view or accept new information readily. Encouraging and promoting positive attitudes is therefore an essential step towards facilitating effective public input into the planning process;
- **Estimating levels of knowledge and understanding of the marine reserve concept, planning process and roles of both Government and the community** - People who do not have an adequate understanding of the marine reserve concept and planning process are unlikely to be able to participate effectively in the planning process;
- **Identifying issues of concern to stakeholder and interest groups** – An identification of key issues will facilitate a more targeted planning process by providing a focus for education and negotiation; and
- **Identifying relationships between and within sectors of the community** – Tensions between groups with conflicting goals in relation to the marine reserve proposal need to be addressed during the planning process in an attempt to reach a resolution which is satisfactory to all parties.

A comprehensive community profile provides the basis for sector communication and liaison planning with each of the interest and stakeholder groups. The issues identified also provide a focus for negotiation during the reserve planning process.

## METHODS

To determine the community profile, discussions were conducted with key community representatives from relevant user and interest groups both within the local Pilbara community and within the peak bodies and Statewide interest groups based in the Perth metropolitan area. Discussions were conducted during April and May of 2000. Contact was primarily face to face with individuals or small groups, and a small number of discussions were conducted by phone. Interviewing staff used open questions (ie. were not asked direct questions about particular issues) and active listening to identify issues, aspirations, concerns and alliances and assess attitude, levels of knowledge and understanding of marine conservation reserve concepts. Assessments were recorded on the standard forms (see Appendix I), which were filled in immediately after the discussion or as soon as possible.

Attitude was recorded as *receptive*, *cautious* or *negative* towards the proposal of a marine conservation reserve and assessments were made at the beginning and at the end of the discussion.

An assessment was made during each interview to determine the level of knowledge and understanding displayed by the interviewee. The following knowledge areas and marine management concepts were assessed:

- the range of values of the proposed marine conservation reserve;
- representativeness;
- sustainability;
- multiple-use;
- zoning;
- no-take zones;
- integrated management;
- the reserve planning process; and
- the roles of Government and the community in the planning process

To maintain the flow of the discussion and avoid it appearing like an interrogation, it was not always appropriate to assess knowledge and understanding of all of the above concepts in every interview. A more detailed definition of adequate levels of knowledge and understanding is available in *Issue Analysis: Notes for Participating Staff* (Appendix II).

The interviewees concerns and issues were recorded on the standard forms in Appendix I and later grouped under the following headings: environmental degradation, planning outcomes, planning process and resource issues. Community aspirations, sector alliances and conflicts were similarly identified and grouped together where appropriate.

Some people who were interviewed represented more than one user or interest group. For example, a local recreational fisherman may also be a local government councillor or be a member of a recreational diving club. In these cases, the discussion results were used just once to determine the overall community profile, but the same discussion results were included in all relevant community sector analyses when determining separate profiles for each community sector.

## RESULTS AND DISCUSSION

A total of 106 interviews were conducted and because some interviews involved more than one person, a total of 164 people were sampled. The numbers of interviews undertaken and people sampled within each community sector are illustrated in Table 2. While the sample sizes for many sectors provide a sound basis for analysis, the numbers of recreational divers, shack owners and commercial fishers were low. Extensive efforts were made to contact Aboriginal community members but with little success. The involvement of Aboriginal people in the survey was considered very important. However, members of the Aboriginal community had more pressing issues at the time of the survey which made it extremely difficult for them to participate. As a result, only three Aboriginal people were interviewed and, as such, their views are not necessarily representative of the range of Aboriginal views. Continuing Indigenous involvement in Native Title issues adds complexity to their participation in the reserve planning process.

**Table 2. Numbers of interviews conducted & people sampled within each community sector with interests in the Dampier Archipelago/Cape Preston marine reserve proposal.**

User Group	No. of interviews	No. of people
<b>COMMUNITY MEMBERS</b>		
Local residents and ratepayers	15	22
Aboriginal communities	4	4
Vacation visitors	1	11
Community service groups	8	21
<b>RECREATIONAL ACTIVITY GROUPS</b>		
Boating	6	7
Diving	2	2
Fishing	10	19
Four wheel driving	2	2
Shack owners	3	4
<b>INTEREST GROUPS</b>		
Conservation	4	9
Science	9	10
Education	3	5
<b>GOVERNMENT</b>		
Local	8	9
State	16	25
Commonwealth	5	5
<b>COMMERCIAL ACTIVITY GROUPS</b>		
Fishing	3	3
Aquaculture & Pearling	6	8
Tourism	24	31
Industry	10	13
<b>PRESS</b>	2	2



About 30% of those interviewed represented more than one interest or user group and the multiplicity of user group representation within the sample is shown in Figure 2.

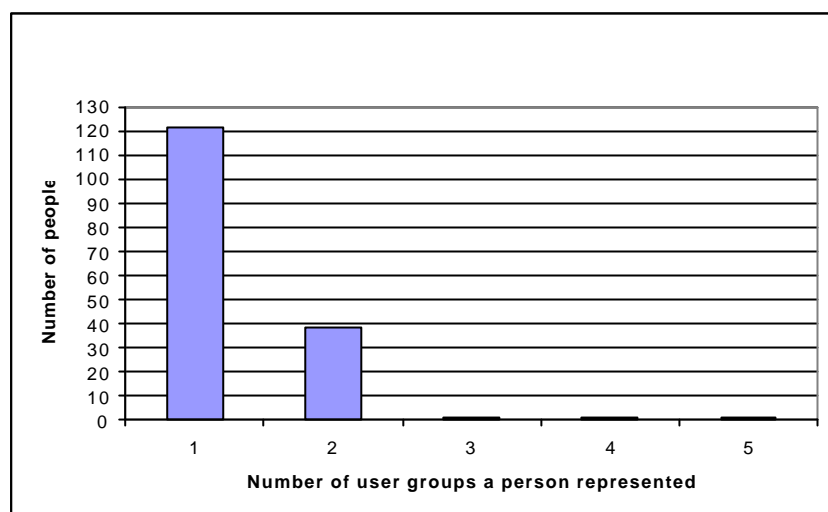


Figure 2. The frequency distribution of sector representation among the 164 people interviewed.

## ATTITUDE

A summary of attitudes across the whole community is presented in Figure 3.

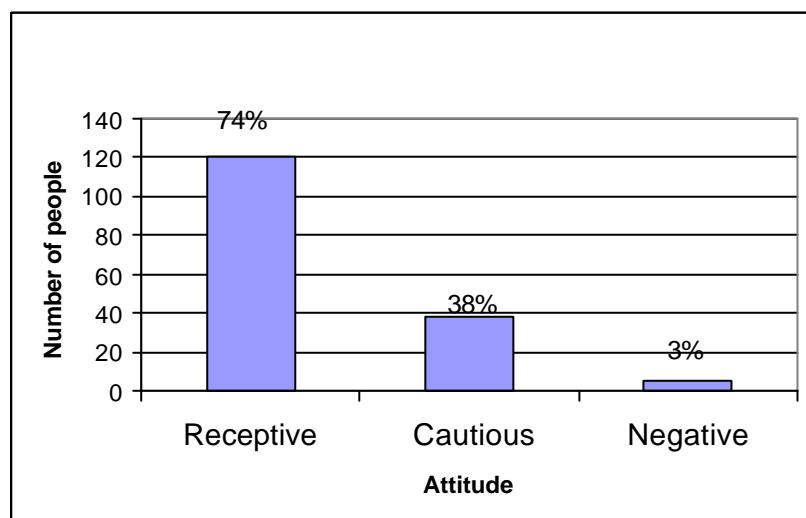


Figure 3. The numbers and percentages of people that were 'receptive', 'cautious' or 'negative' to the marine reserve proposal.

These results represent the attitudes of interviewees at the commencement of discussions and therefore are more likely to be a better reflection of the attitudes of the broader community. Three quarters of the people interviewed had a *receptive* attitude and only 5 people were *negative* to the proposal of a marine conservation reserve in the Dampier Archipelago/Cape Preston area.

The attitudes of people within each of the community sectors are summarised in Table 3.

**Table 3. Summary of attitudes recorded at the beginning of discussions with each sector of the community.**

User Group	Receptive	Cautious	Negative	Total
<b>COMMUNITY MEMBERS</b>				
Local residents and ratepayers	22	-	-	22
Aboriginal communities	3	-	1	4
Vacation visitors	-	11	-	11
Neighbouring land owners	-	-	-	-
Community service groups	12	5	4	21
<b>RECREATIONAL ACTIVITIES</b>				
Boating	7	-	-	7
Diving	2	-	-	2
Fishing	15	-	4	19
Four wheel driving	1	1	-	2
Shack owners	2	2	-	4
<b>INTEREST GROUPS</b>				
Conservation	4	5	-	9
Science	10	-	-	10
Education	5	-	-	5
<b>GOVERNMENT</b>				
Local	8	1	-	9
State	17	8	-	25
Commonwealth	4	1	-	5
<b>COMMERCIAL GROUPS</b>				
Commercial fishing	2	1	-	3
Pearling/Aquaculture	8	-	-	8
Tourism	29	2	-	31
Industry	10	3	-	13
PRESS	2	-	-	2

One member of the Aboriginal community who was interviewed had a *negative* attitude, which remained throughout the discussion. There were 4 *negative* interviewees from the community service user group and the recreational fishing user group. However, these were the same 4 people with both sectoral interests. At the end of their discussions, they had all become less negative and their attitudes were recorded as *cautious*.

Eleven vacation visitors were initially *cautious*, but at the end of the discussion they were considered to be *receptive*. Interviewees who were initially *cautious* from the four-wheel driving, shack owners, conservation, local Government, Commonwealth Government, commercial fishing and tourism user groups were all *receptive* at the end of the interview. Of these, one person represented both the shack owners and the local Government sectors.

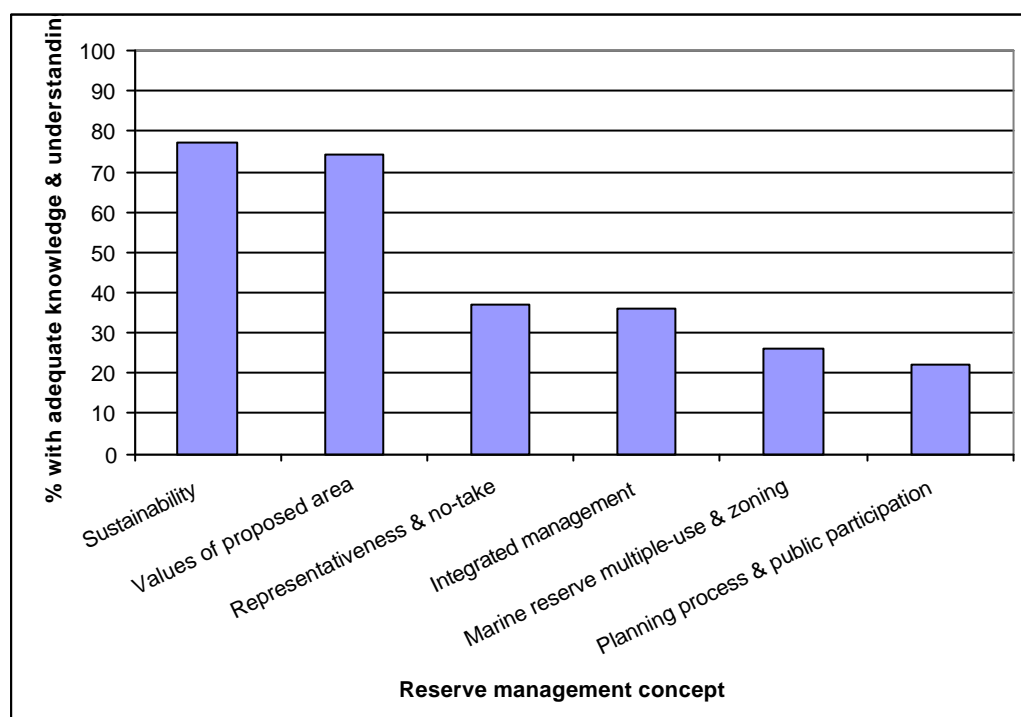
Of the five people representing the community service sector who were *cautious* at the beginning of the discussion, only one became *receptive* at the end of the discussion and the others remained *cautious*. The one person who had shifted attitude also had an interest as a shack owner.

Eight people representing the State Government sector were *cautious* at the commencement of discussions and at the end, three of these were recorded as *receptive*, while the other five remained *cautious*. The three industry representatives who had *cautious* attitudes at the beginning of discussions were still *cautious* at the end of the discussions.

The low incidence of negativity within the community indicates that most people are ready for an education program and there is no requirement to develop strategies to address unreceptive attitudes.

## LEVELS OF KNOWLEDGE AND UNDERSTANDING

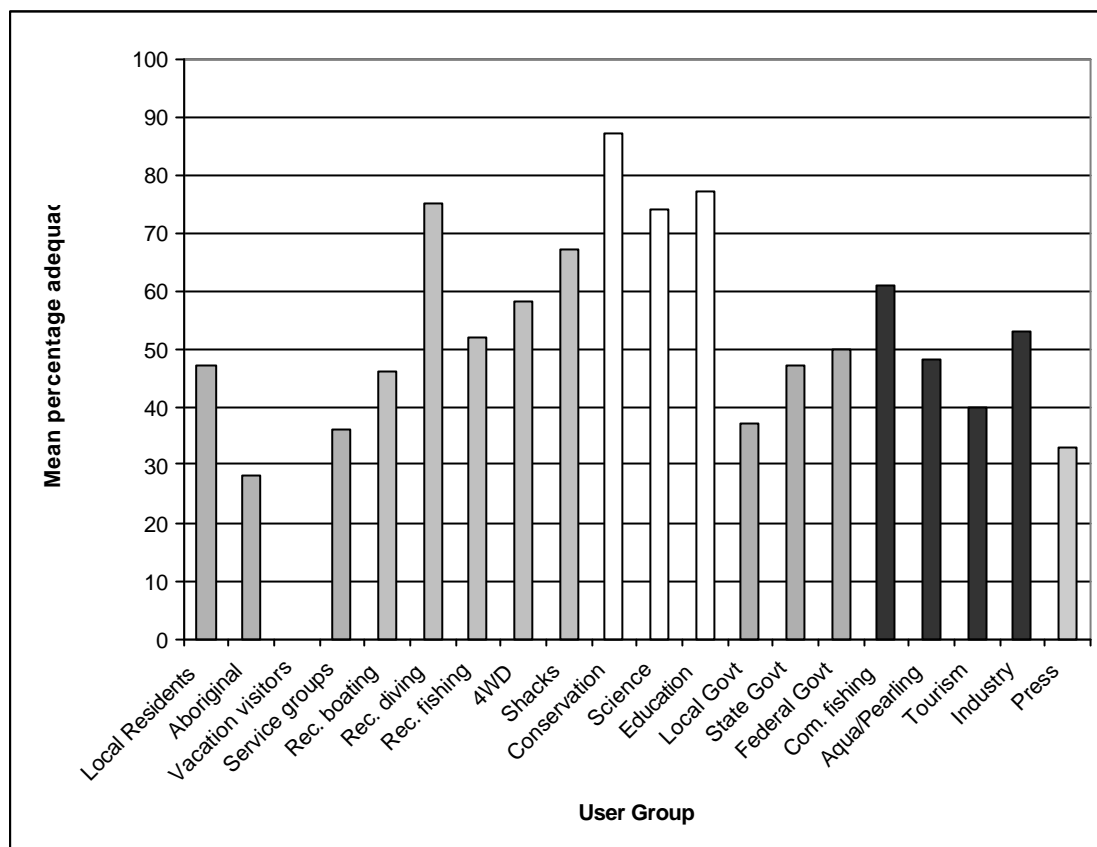
An overall summary of the adequacy of community levels of knowledge and understanding is presented in Figure 4.



**Figure 4. The percentages of the community with adequate levels of knowledge and understanding of marine conservation reserve concepts.**

The broad community has a reasonable level of knowledge and understanding of the concept of sustainability and the multiplicity of values within the proposed reserve area. However, the levels of knowledge and understanding of representativeness and no-take areas, integrated management, marine reserve multiple-use and zoning and the planning and public participation processes are all too low for effective participation by the broad community in the planning process.

The knowledge and understanding of representatives in each of the separate community sectors is recorded for all marine reserve concepts in Appendix III and summarized as an average of the percentages of people with adequate knowledge over all of the marine reserve concepts in Figure 5.



**Figure 5. Mean percentages of levels of adequate knowledge and understanding across all marine conservation reserve management concepts for each community sector.** (General community groups are shaded with diagonal stripes, recreational groups are shaded grey, interest groups are white, government groups have a bold check pattern, commercial groups are black and the press has vertical stripes).

The conservation, science and education interest groups are the best informed. The nine conservation representatives had an average level of knowledge of 87% across all reserve concepts and a lowest level of understanding of 67% in relation to integrated management. Only five education sector representatives were interviewed but their average level of knowledge across all reserve concepts was 77%. This was indicative of a broad understanding with the lowest level of knowledge being as high as 60% in relation to marine reserve multiple-use and zoning, representativeness and no-take and the planning and public participation processes. The ten scientists had an average level of knowledge of 74% across all reserve concepts but only 44% of those scientists interviewed had an adequate level of understanding of integrated management. Apart from the concept of integrated management, these results indicate that there is little need for a basic education program targeting members of these three interest sectors. Education material can focus on the progress of the planning process and the specific issues being negotiated.

The recreational diving, shack owner and commercial fishing sectors appear reasonably well informed but the numbers of people interviewed were low and may not have been indicative of overall levels of knowledge and understanding within these sectors. Of the other sectors with average levels of knowledge and understanding of 50% or higher, only two people were interviewed from the four wheel driving sector, while of the 19 recreational fishers, less than a third had adequate knowledge and understanding of marine reserve multiple-use and zoning or the planning and public participation processes. Of the five Commonwealth Government

representatives interviewed, only one had adequate knowledge of the marine reserve multiple-use and zoning framework or the planning and public participation processes. Among the 13

industry representatives, only a quarter had adequate understanding of integrated management or the planning and public participation processes.

These results indicate that although the average levels of knowledge and understanding across all reserve concepts are reasonably high for some sectors of the community, none have sufficient levels of knowledge and understanding to participate effectively in reserve planning, without a targeted education program to explain the multiple-use concept and zoning plus the planning and public participation processes.

All other sectors had average levels of knowledge and understanding of less than 50% with many having no representatives with adequate understanding of some reserve concepts. The vacation visitors recorded the lowest levels of knowledge and understanding and all representatives had inadequate levels in all reserve concepts. This may be a result of having had no access to recent local press articles and community activities, which would have raised the awareness of other local residents. A broad education program is required for all these remaining sectors before they will be able to participate effectively in the planning process.

## **HOPES AND ASPIRATIONS**

The community expressed a wide range of view points relating to their hopes and aspirations for the future. A broadly supported community vision can be summarised as one in which the natural resources are sustainably managed and available for enjoyment and use. However, the aspirations of a minority of interviewees differed from this and included subdividing and developing all over the islands and cutting down all the mangroves. Many members of the community see no-take areas as part of future management of the area and some people suggested appropriate sites for the establishment of no-take areas. Many of those who described their vision for the future felt that to maintain the values of the area, the islands themselves should remain much as they are now but that there is room for some low key tourist facilities on some islands. Many people anticipate further industrial development on the adjacent mainland although many indicated they did not support further industrial expansion.

The community expressed strongly their aspiration for balance and equity in zoning outcomes and for government agencies to work effectively together in managing the area. There is also a very high number of people who hope that extensive educational material will be made available to the public as part of the planning, establishment and ongoing management of a marine reserve. The hopes and aspirations of community members are listed in Appendix IV.

## **ISSUES AND CONCERNS**

A wide range of issues and concerns were identified by members of the community. The most frequently identified issues are grouped and presented in Appendix V. They are summarized in Table 4.

**Table 4. Issues and concerns most frequently identified by interviewees with the percentages of people who identified concerns within each subject area.**

<b>Issues and concerns</b>	<b>Percent</b>
<b>Planning process:</b> its capacity for equitable involvement of all sectors in a climate where some of the players are very powerful and a significant number of the general community are cynical and apathetic.	<b>65%</b>
<b>Environmental impacts and degradation:</b> including fish stock depletion, by-catch and other environmental damage from trawling, ballast water discharge, developments changing water circulation patterns and TBT antifouling paint impacts.	<b>61%</b>
<b>Planning outcomes:</b> the fear of changes which could limit recreational access, or industrial operations, might seem inequitable or not focused on protecting the environment.	<b>59%</b>
<b>Resources:</b> the equitable allocation of resources among management agencies for day-to-day management and the source of management resources with the perceived potential for associated fees.	<b>14%</b>

### **Planning process**

Concerns relating to the planning process focused mainly on the ability and willingness of local community members to commit their time and energy to it. It was considered likely, by 21% of those interviewed, that the large proportion of short-term residents in the Pilbara coastal towns would result in a low level of community ownership and interest in long term conservation of the area. Sixteen percent of those interviewed were concerned that previous poor community consultation processes had left people feeling cynical and unwilling to get involved again and 15% were concerned that very few people currently know about the reserve proposal and are therefore unable to get involved. Once again, these concerns were expressed by representatives from a wide range of community sectors. They highlight the need for a broad community education program to encourage and facilitate community involvement. They also emphasise the need for the reserve planning process to be open and truly participatory because it will take very little to put the community offside when its members are slightly apathetic and cynical with negative experiences of previous community consultation exercises.

### **Environmental impacts and degradation**

Clearly the community is concerned about the health of the marine environment with 54% identifying concerns over fin fish stock depletion, 35% expressing concern over by-catch and other impacts on the benthos resulting from trawling and 21% of those interviewed identifying ballast water discharge from big ships as a serious environmental issue in the area. Several other specific environmental issues were identified relating to water quality and over exploitation and it appears that some environmental degradation is of sufficient magnitude to be obvious to a significant proportion of the community. It is also of interest that these concerns were expressed by representatives from a wide range of community sectors and it is not therefore only members of the conservation and science sectors that see the need for sound environmental management.

Concerns relating to the need for protection of the marine and coastal environments were those most frequently identified by community members. A management framework that addresses these issues is therefore likely to be supported even if some of the necessary management strategies require additional restrictions.

**Planning outcomes**

A wide range of issues were identified by members of the community relating to marine reserve planning outcomes. Eleven percent of the people interviewed expressed concern that the different community sectors would not have equal power in the planning process with a marine reserve zoning scheme being more the result of economic forces than environmental rationale. A further 9% were concerned that no-take areas wouldn't be justified through the provision of an environmental rationale. There was some concern among 11% of interviewees that aquaculture licences for the culture of pearls would continue to be issued without extensive consultation and a further 11% of those interviewed were concerned about the possibility of further restrictions to access within a reserve. These concerns were expressed by several sectors of the community and they emphasise the need for a completely open, accountable approach to planning with the provision of clear rationales for decisions. An open accountable approach will also help members of the community understand the need for, and come to terms with, possible changes which alter their use of the area.

**Resources**

Fewer members of the community expressed concern over the practical management of an established marine conservation reserve, but 15% of those interviewed felt concerned about the adequacy of resources to develop and maintain a reserve and 5% feared the introduction of fees. Clearly the issue of funding will come up during the planning process and strategies to involve the community in addressing these concerns need to be considered.

**RELATIONSHIPS AND ALLIANCES**

Although some alliances and conflicts were identified among sectors of the community, few were mentioned more than once. However, animosity involving the pearl culture industry with recreational fishers, boat owners or local residents was identified by 16 people. Conflict among commercial fishers (a crayfisher and trawlers) was identified by five people, and some mistrust between recreational fishers and both commercial fishers and CALM was mentioned by three people.

## **REFERENCES**

- CALM (1994). A representative marine reserve system for Western Australia. Report to the Marine Parks and Reserves Selection Working Group. Department of Conservation and Land Management, Perth, Western Australia.
- CALM (2000). Public Participation Manual. Department of Conservation and Land Management, Perth, Western Australia.
- Osborne S. (2000). Public Participation in Western Australian Marine Conservation Reserves Operational Procedures. Department of Conservation and Land Management, Fremantle, Western Australia.
- Osborne S., Bancroft K.P., D'Adamo N., and Monks L. (2000). Dampier Archipelago/Cape Preston Regional Perspective 2000. Department of Conservation and Land Management, Fremantle, Western Australia.



## **APPENDICES**







## **Appendix I : DISCUSSION RECORD FORM**

Contact .....

face to face	telephone	written
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	Receptive	Cautious	Negative
Beginning of discussion			
End of discussion			

adequate

low	excellent
	
	
	
	
	
	

## Community alliances & conflicts

[illegible]

## APPENDIX II: ISSUE ANALYSIS

### NOTES FOR PARTICIPATING STAFF

## Issue analysis: Notes for Participating Staff

### Introduction

Public Participation is an interactive process by which interested and affected individuals, organisations, departments and government entities are consulted and involved in decision making. This process both informs and seeks a response from the public.

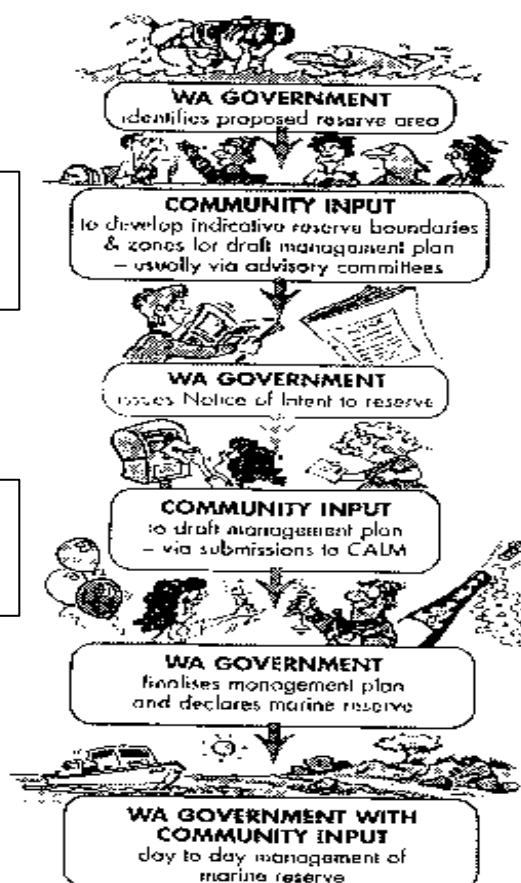
The overall goal of the public participation program (PPP) in the planning and management of Western Australian marine conservation reserves is:

**To develop community ownership, stewardship, and understanding of marine conservation reserves.**

The reserve planning process incorporates two phases for public involvement, and issue analyses are undertaken at the beginning of the first phase, either before, or just after the first meeting of a community advisory committee.

**Stage 1** of public involvement takes place before the Notice of Intent, primarily through the advisory committee process.

**Stage 2** of public involvement takes place after publication of the Notice of Intent primarily through written submission.



The objective of the issue analysis stage of the PPP is:

**To develop a community profile on which to base the development of a communication strategy to encourage and facilitate community involvement in planning marine conservation reserves.**

Issue analyses provide an opportunity to;

- gain an understanding of community attitudes towards, and levels of understanding of, the local marine reserve proposal,
- gain an understanding of alliances and conflicts within and among community groups,
- open channels of communication and develop rapport with key community members,
- provide information to key members of the community,
- identify appropriate liaison pathways to facilitate effective participation in the reserve planning process.

The following method will be adopted;

1. Gather data by contacting key community representatives from all relevant user and interest groups. Contact will consist primarily of face-to-face discussions.
2. Summarise the data to determine the attitudes and aspirations, levels of understanding, and community relationships for all relevant user and interest groups.
3. Define key messages and appropriate communication techniques together with a program of actions for each group in order to develop appropriate attitudes, minimum levels of understanding and to assist with development of a shared vision both within and among community groups.

The discussion data sheets are designed to record;

- attitude,
- levels of knowledge,
- the existence of conflicts and alliances, and
- commonly used methods of communication.

These forms should not be completed in the presence of a member of the public, but instead should be completed from memory as soon as possible after each discussion. Relevant notes taken during the discussion should be recorded in the note book provided.

Before members of the community can have effective input into the reserve planning process, they need to have a cooperative attitude and a minimum level of understanding. People who are strongly negative or hostile will not consider other points of view or accept new information. People who do not have a minimum level of understanding of the marine reserve concept and planning process will not be able to participate effectively in the planning process. The achievement of an appropriate attitude is therefore the first essential step towards the facilitation of effective input into the planning process.

## **Attitude**

When recording attitude, an effort should be made to try and distinguish between attitude towards the marine reserve proposal, and attitude towards the interviewer.

If you consider that the person is displaying an attitude which is not provided in the choices on the forms (e.g. indifference) please record this adjacent to the boxes.

You may also like to ask a question about the attitudes of other members of the community group which the person represents, and note this on the form.

Hostility is not an uncommon response. Hostility however, is rarely meant personally. Although sometimes expressed passionately, hostility is usually directed either at the agency which you represent or is a result of a misunderstanding of the marine reserve concept. People in this frame of mind will usually not hear counter arguments if they are presented too quickly. They will instead filter out information which you provide and take on board only what supports their entrenched ideas. Staff will need to be both tolerant and patient in these circumstances and remember that one of the main reasons for undertaking a thorough PPP is to

ensure that these opinions are brought into the open at an early stage of planning and dealt with well before a reserve is declared.

If hostility is based on a negative perception of the agency, the interviewer will need to work towards developing their own identity with the person, i.e. transferring the interaction to a more personal level and developing a relationship. Relationships are built on **trust** and there is a need to be both **reliable** and **consistent** in dealings with the person in order to develop a relationship.

Hostility which is based on misinformation, will also require manipulation of the situation. Again, it is only after the development of individual identity and personal trust, that the person will become receptive to new and accurate information. The development of relationships is therefore central to the PPP process and ongoing resources will be needed to undertake this task.

Initially, the emphasis will need to be on **listening**. Active listening will not only help to identify the source of the problem, it will also show the person that you are interested in him/her. It is a good idea to concentrate on common ground and experiences and build on these e.g. a love of the sea. Whatever the mood of the discussion, people should always be thanked for their time and if appropriate, for their frankness. The promise of further information and a follow up by mail is important in hostile cases because it reinforces your trustworthiness. Subsequent meetings, phone discussions etc will gradually build the necessary relationship.

Occasionally, people become embarrassed by their own behaviour and are reluctant to contact you in the future. You may need to be persistent.

Staff should try to identify genuine distress relating to a perception that livelihood or some other basic need is under threat. These cases may require urgent reassurance from senior staff.

## Level of knowledge

Level of knowledge should be determined by asking open questions and levels should be recorded as a line along the sliding scale for each topic. A minimum level of understanding required for each topic is defined as having an understanding of the following;

**Values of proposed area:** At least three value attributes from the following list in relation to the proposed area;

commercial fishing	scientific
tourism	educational
recreation	scenic / amenity
wildlife	conservation
petroleum	pearling & aquaculture

**Multiple-use & zoning:** Western Australian marine reserves allow for many uses, both commercial and recreational.

Different activities are separated into geographically distinct areas.

The types of marine reserve and zoning options in Western Australian.

**Representativeness & no-take:** Diversity of ecosystem types around the State and the concept of samples of each being represented within a State wide reserve system.

Diversity of habitat types within the proposed reserve area and the concept of samples of each being represented within no-take zones.

Reasons for no-take areas and issues of zone scales for the different reasons.

**Sustainability:** Cumulative impacts of multiple use.

**Integrated management:** Many agencies have management jurisdiction in the marine environment.  
Marine reserves provide a management framework to coordinate the activities of all these agencies.

**Planning process & public participation:** Advisory committee has community based membership.  
Advisory committee substantially develops the indicative management plan.  
Public input into the initial stages of planning is primarily through Advisory committee members.  
After the publication of the draft management plan there is a statutory public submission period for written submissions direct to CALM.

It may not be appropriate to investigate the level of knowledge in all areas listed on the form in detail. However, we will need to know whether there is an adequate level of knowledge in the areas of multiple-use and zoning plus the planning process and participation as a minimum.

Having assessed the level of knowledge of the user/interest group which the contact person represents, information should be distributed to increase the level of knowledge and understanding of the contact person. It is often useful to arrange to forward additional information by mail because this reminds the person of your visit a few days later and also demonstrates that you do what you say you will do.

We need to know how best to communicate with each user/interest group. Information relating to methods of communication which are used by members of the user group will assist in later stages of the PPP process.

It is wise not to assume that all contacts can read and write. Some sensitivity may be necessary in these cases.

## **Questions / concerns / knowledge gaps + community conflicts and alliances**

This information will become evident by asking open questions.

Conflicts within the community which relate directly to the marine reserve proposal need to be addressed during the planning process in an attempt to reach a resolution which is satisfactory to all parties. Any information which will assist in determining the most appropriate course of action to resolve conflict will be useful.

## **Rumours**

These will come out naturally during the discussion. There is no need to address this issue directly through questioning.

## Some possible questions:

### What is Integrated Management?

Historically, human activities in marine and coastal environments have been managed by a number of separate agencies often in isolation from each other and with little involvement from the general community. Integrated management provides a framework for government and the community to consider the total impact of all human activities on each other and on the natural environment.

### What is Sustainability?

Sustainability means ensuring that current human usage does not overload the environment and reduce the options for present and future generations.

Energy from sunlight, primary production limits productivity of ecosystem. Sustainability means maintaining impacts below a level which natural community can replace/repair.

### Why is the planning process so involved?

The planning process provides for input from all interest groups, whether your interest is conservation, fishing, tourism, mining or as a member of an indigenous community. A commitment to community involvement in reserve planning ensures local knowledge is included and an appropriate zoning plan is developed. A sense of community ownership and overall support is essential for effective long-term marine reserve management.

### Can I fish in marine reserves?

Recreational fishing is permitted in **Marine Management Areas** and in General Use zones, most Recreation and some Special Purpose zones of **Marine Parks**. Fishing is not permitted in **Marine Nature Reserves** or in Sanctuary zones of **Marine Parks**.

### Why are marine parks zoned?

Zoning provides for conservation while allowing sustainable recreational and commercial activities. While a wide range of activities are permitted in multiple-use marine reserves, the zoning system minimises conflict by establishing some zones for extractive or intrusive activities and other zones for undisturbed nature study and passive enjoyment of the natural environment.

### Why declare reserves when so much of our coast appears healthy?

While marine reserves have a role to play in repairing environmental damage, their primary objective is to conserve the environment in a healthy condition for all users both present and future. So what better time than now to establish marine reserves while our environment is in relatively good condition.

### How do I get involved in marine reserve planning and management?

During the planning process, discuss your concerns with advisory committee members and make a written submission to CALM when the draft management plan has been released. Membership of the marine reserve management advisory committee, a local friends group or other volunteer association provide avenues for involvement in management after the reserve is declared.

### Why are you lot doing this not Fisheries?

It is Government policy - refer to New Horizons. Fisheries will maintain responsibility for managing fishing within marine reserves. The reserves provide an integrated management framework for all agencies to work together and complement one another.

### How can you call this a reserve when you can drill for oil in it?

All activities will be permitted within marine reserves provided they do not significantly impact on the environment and do not significantly impact on other users. Assessment of petroleum activities will be undertaken under the *Environmental Protection Act* through the



environmental impact assessment process. All activities within a multiple use marine park will be reviewed in terms of the environmental impacts and potential for conflict with other users so that the cumulative impacts remain below the sustainable limit.

The concept of reserves in the marine environment are different to that on land because the marine environment is untenured and far more interconnected. Marine reserves embrace the concept of multiple-use and are equivalent to the integrated management of large tracts of land e.g. whole shires, for all of the purposes within that area. These might include agricultural use, town sites, national parks and mining.

### **What's the difference between no reserve, General Use Zones and Marine Management Areas?**

Integrated management provides a management framework to maintain impacts below the sustainable limit for the environment rather than considering the sustainability of each use on an individual basis. Management agencies share a vision for marine reserve areas.

Marine management areas are usually large and there is similar emphasis on the three sectors of conservation, recreation and commercial activities. Marine Parks can be declared within the outer boundaries of Marine Management Areas - a nested approach.

### **What's the point of having reserves with tiny sanctuary zones?**

It's true that the potential functions of no-take areas depend on the scale of the area. Small areas still provide scientific reference points. However, they are unlikely to provide any benefits in terms of stock refugia or replenishment.

The small marine reserves in the Metropolitan area are primarily to manage high levels of recreation. The sanctuary zones within these parks function primarily as scientific reference areas.

### **What do you need no-take areas for? We're used to bag limits and other restrictions which prevent overfishing?**

While Western Australia has a good record of fisheries management, catch effort data is gathered on a different scale to that required to protect small areas of coast. Data areas translate into blocks of 100km x 100km or 10,000 square kms. Therefore there could be significant depletion in small high usage areas which would be undetected or indicate just slight decline.

There are also several areas where anecdotal evidence suggests that stocks are well below those experienced by fishers 20 or so years ago - refer to Marmion study and Ningaloo and South coast studies under way.

Management through monitoring is very expensive and it is more expensive if the pressure on the resource approaches the critical limit. i.e. intensity of research must be equivalent to the risk factor - refer to critical health situations for comparison. No-take areas provide insurance against lack of information or the collection of the wrong information - it's like having something in the bank, how many people live hand to mouth with no security in the bank? No-take areas are cheaper to manage and protect the whole habitat, not just the few species which are prized by fishers.

### **Where can I use my boat?**

No activity will be effected by a marine reserve unless it damages the environment or unfairly impacts on other users. Boating is unlikely to be restricted other than for safety reasons or if pressure builds to an unsustainable level. The more users in an area, the greater the need for limiting impacts so that the cumulative impact does not exceed the sustainable level. All activities which cause significant impacts may be pressured by other users into adopting minimal impact practices. In the case of boating this may mean a review of mooring designs, antifouling procedures, waste disposal and refuelling techniques.

**Is this likely to improve my business or are you going to stop people using the area?**

There are many examples where tourist businesses have benefited by increased visitation to marine reserve areas. Business will also benefit from the assurance that integrated management will maintain usage at or below the sustainable limit. The vital resource of your business - i.e. the environment will therefore have greater assurance for the future.

If the limit of sustainable use is not to be exceeded, areas with high usage or large cumulative impacts will need to review the impacts of all activities. A review of your business to adopt best minimal impact practices will benefit all users.

**It's all very well declaring parks, but there's never any money to manage them. What are you going to do about that?**

There is a specific step in the statutory planning process which requires that advice be provided to cabinet regarding the costs associated with managing each marine reserve.

CALM cannot manage marine reserves alone. There is a need to consider the development of partnerships with local government and communities for funding day-to-day management. In the same way that parks and gardens are funded, the community will need to consider the costs of developing and the costs of not developing marine reserves.

**This is just the thin end of the wedge, are you lot going to want to charge for moorings and ramp fees etc?**

The Government has a user pays policy. If users make high demands on Government, these demands will need to be funded somehow.

## Appendix III: KNOWLEDGE AND UNDERSTANDING OF MARINE CONSERVATION RESERVE CONCEPTS WITHIN COMMUNITY SECTORS

Contact Group	Level of knowledge & Understanding	Number of people	Number with adequate understanding	% with adequate understanding
<b>COMMUNITY SECTORS</b>				
<b>Local residents &amp; rate payers</b>	Values of proposed area	22	20	91
	Marine reserve multiple-use & zoning	22	4	18
	Representativeness and no-take	15	6	40
	Sustainability	21	21	100
	Integrated management	12	1	8
	Planning process & Public Participation	22	5	23
<b>Aboriginal Communities</b>	Values of proposed area	2	2	100
	Marine reserve multiple-use & zoning	3	0	0
	Representativeness and no-take	1	1	100
	Sustainability	1	1	100
	Integrated management	1	0	0
	Planning process & Public Participation	3	0	0
<b>Vacation visitors</b>	Values of proposed area	11	0	0
	Marine reserve multiple-use & zoning	11	0	0
	Representativeness and no-take	11	0	0
	Sustainability	11	0	0
	Integrated management	11	0	0
	Planning process & Public Participation	11	0	0
		11	0	
<b>Community service groups</b>	Values of proposed area	21	12	57
	Marine reserve multiple-use & zoning	21	3	14
	Representativeness and no-take	21	8	38
	Sustainability	21	15	71
	Integrated management	20	7	35
	Planning process & Public Participation	21	0	0

### RECREATIONAL SECTORS

<b>Boating</b>	Values of proposed area	7	5	71
	Marine reserve multiple-use & zoning	7	1	14
	Representativeness and no-take	7	2	29
	Sustainability	6	6	100
	Integrated management	6	2	33
	Planning process & Public Participation	7	2	29
<b>Diving</b>	Values of proposed area	2	2	100
	Marine reserve multiple-use & zoning	2	1	50
	Representativeness and no-take	2	2	100
	Sustainability	1	1	100
	Integrated management	2	1	50
	Planning process & Public Participation	2	1	50
<b>Fishing</b>	Values of proposed area	19	14	74
	Marine reserve multiple-use & zoning	19	6	32
	Representativeness and no-take	12	6	50
	Sustainability	18	13	72
	Integrated management	10	5	50
	Planning process & Public Participation	19	6	32

<b>Four wheel drive</b>	Values of proposed area	2	2	100
	Marine reserve multiple-use & zoning	2	1	50
	Representativeness and no-take	2	1	50
	Sustainability	1	1	100
	Integrated management	1	0	0
	Planning process & Public Participation	2	1	50
<b>Shack owners</b>	Values of proposed area	4	4	100
	Marine reserve multiple-use & zoning	4	3	75
	Representativeness and no-take	4	3	75
	Sustainability	4	4	100
	Integrated management	4	1	25
	Planning process & Public Participation	4	1	25

### INTEREST GROUPS

<b>Conservation</b>	Values of proposed area	9	9	100
	Marine reserve multiple-use & zoning	9	7	78
	Representativeness and no-take	9	9	100
	Sustainability	9	9	100
	Integrated management	9	6	67
	Planning process & Public Participation	9	7	78
<b>Science</b>	Values of proposed area	10	10	100
	Marine reserve multiple-use & zoning	10	7	70
	Representativeness and no-take	10	10	100
	Sustainability	10	10	70
	Integrated management	9	4	44
	Planning process & Public Participation	10	6	60
<b>Education</b>	Values of proposed area	4	4	100
	Marine reserve multiple-use & zoning	5	3	60
	Representativeness and no-take	5	3	60
	Sustainability	5	5	100
	Integrated management	5	4	80
	Planning process & Public Participation	5	3	60

### GOVERNMENT REPRESENTATIVES

<b>Local Government</b>	Values of proposed area	9	7	78
	Marine reserve multiple-use & zoning	9	1	11
	Representativeness and no-take	9	2	22
	Sustainability	7	6	86
	Integrated management	8	2	25
	Planning process & Public Participation	9	0	0
<b>State Government</b>	Values of proposed area	25	17	68
	Marine reserve multiple-use & zoning	25	4	16
	Representativeness and no-take	25	5	20
	Sustainability	20	13	65
	Integrated management	19	17	89
	Planning process & Public Participation	25	6	24
<b>Commonwealth Government</b>	Values of proposed area	5	5	100
	Marine reserve multiple-use & zoning	5	1	20
	Representativeness and no-take	5	3	60
	Sustainability	4	3	75
	Integrated management	4	1	25
	Planning process & Public Participation	5	1	20

## COMMERCIAL SECTORS

<b>Commercial Fishing</b>	Values of proposed area	3	3	100
	Marine reserve multiple-use & zoning	3	1	33
	Representativeness and no-take	3	1	33
	Sustainability	3	3	100
	Integrated management	3	1	33
	Planning process & Public Participation	3	2	67
<b>Aquaculture &amp; Pearling</b>	Values of proposed area	8	8	100
	Marine reserve multiple-use & zoning	8	2	25
	Representativeness and no-take	8	2	25
	Sustainability	8	8	100
	Integrated management	8	2	25
	Planning process & Public Participation	8	1	13
<b>Tourism</b>	Values of proposed area	31	22	71
	Marine reserve multiple-use & zoning	31	8	26
	Representativeness and no-take	29	9	31
	Sustainability	25	20	80
	Integrated management	30	5	17
	Planning process & Public Participation	31	4	13
<b>Industry</b>	Values of proposed area	13	12	92
	Marine reserve multiple-use & zoning	13	5	38
	Representativeness and no-take	11	5	45
	Sustainability	11	10	91
	Integrated management	12	3	25
	Planning process & Public Participation	13	3	25

## PRESS

<b>Press</b>	Values of proposed area	2	2	100
	Marine reserve multiple-use & zoning	2	0	0
	Representativeness and no-take	2	0	0
	Sustainability	1	1	100
	Integrated management	2	0	0
	Planning process & Public Participation	2	0	0

## Appendix IV: A SUMMARY OF HOPES AND ASPIRATIONS OF THE COMMUNITY

A summary of the hopes and aspirations of community members.

<b>Management of a marine reserve</b>	<b>Number of people</b>
Greater integration of management effort	6
That access to the islands and the Burrup Peninsula will be made easier	6
Would like to see more research and longitudinal studies carried out	4
Hope to see a greater presence of Government officers policing the area	3
Hope that the reserve is multiple-use and zoning reflects balance among users	3
Would like to see mangroves in the area protected	2
The oil and gas industry not be allowed in marine reserves	2
Hope to see zones and boundaries clearly marked on the water	2
Commercial trawling be excluded from the Archipelago	2
That management provides stability for the region	1
Hopefully sensitive areas will be strictly controlled	1
<b>No-take areas</b>	<b>Number of people</b>
Would like to see more no-take areas as they are a good concept	38
Hope to see no-take areas in specific locations (13 sites listed)	36
Hope to see no-take areas spread out around the reserve	1
Would like to see a percentage of the marine reserve be no-take	1
<b>Public Participation Program</b>	<b>Number of people</b>
Hope to see more educational material about marine conservation reserves and the marine environment in general	51
Would like to see the process eventuate in a marine reserve	18
Hope to see greater community input	7
Hopefully statewide ownership of a marine reserve in the area would be an outcome	5
Hope to get involved in the process	3
Hope that visitors to the area will be adequately informed about the region in order to develop an ownership of the area	3
Would like to see Government come out and talk to local people more often	3
Hope that knowledge and awareness of marine conservation will be heightened as a result of the process	2
That more women are encouraged to participate in the process	1
<b>Future development</b>	<b>Number of people</b>
Hopefully tourism will be facilitated with some low key accommodation and facilities on some islands.	25
Would like to see the islands left pristine and untouched	7
Would like to see the islands sub-divided and sold	1

## Appendix V: THE ISSUES AND CONCERNS MOST FREQUENTLY IDENTIFIED BY COMMUNITY MEMBERS

Concern	Number of people	User Group with concern
<b>Environmental impacts &amp; degradation</b>		
A noticeable decline in the level of fish stocks	54	L1 L3 L4 R1 R2 R3 R4 I1 I2 I3 G1 G2 G3 C3 C4
Trawling damaging the marine environment & the issue of by-catch	35	L1 L3 L4 R1 R2 R3 I1 I3 G2 G3 C3 C4
Ballast water discharge polluting the marine environment and introducing marine pests	21	L1 R1 R2 R3 R4 I1 I2 I3 G3 C2 C3 C4
Overharvesting of marine organisms for the aquarium industry	16	L1 L3 R2 R3 R4 I1
Causeways blocking water flow and aiding the build up of sediment	14	L1 R1 R2 R3 R4 I1 I2 G3 C3 C4
Poor water quality in the Archipelago – from pollution & sediment	14	L1 R3 I1 I3 C3
General degradation of the marine environment as a result of human use	14	L1 R1 R2 I1 C2 C3
Dust from iron ore operations polluting the marine environment	12	L1 R1 I1 I3 G1 G2 G3 C3
Habitat decline on limestone platforms.	11	L3
Anti-fouling agents such as TBT polluting the marine environment	9	L1 R1 I1 I2 I3 G1G3
<b>Planning outcomes</b>		
Zones in the reserve being determined by economic reasons rather than environmental reasons	11	R3 I1 I2 C3
That the freedom people are used to will be affected	11	L1 L4 R3 I2 C3 C4
Pearling leases are granted without adequate consultation	11	L1 R2 R3 R4 I1

		G1 C3 C4
No take areas being established without being justified or explained	9	L4 R1 R3 I1 I2 C3
There not being balance & equity in the zoning scheme	9	L1 L4 R1 R3 R4 G2 C3
Access to particular favourite “spots” being affected	8	L1 L4 R1 R3 I3 G2
People will only accept minimal changes and therefore the marine reserve will not be effective in protecting the environment	7	L1
No take areas not being accepted by the community	6	L4 R3 G1 G2 C3
Shacks being removed	6	L4 R1 R5
The reserve having an impact on development and industry proposals	5	I1 G2 C3 C4
That access for recreational users is already being eroded by industry and aquaculture and pearling and a reserve will add further restrictions	5	L5 R3 C3 P
<b>Planning process</b>		
The transient or short term residents not developing a sense of ownership of the marine environment	21	L1 R1 R3 I1 I2 G2 C3 C4
Past experience with poor consultation has left the community feeling cynical about consultation processes and they will not get involved	16	L1 L5 R1 R3 G1 G2 C3
People being unaware of the marine reserve proposal	15	L3 I2 G1 G2 C2 C3
There will be a limited number of people with the time or the inclination to get involved in the process and this will affect the outcome and management of a marine park	9	L1 R1 R3 R4 I3 G1 G2
The apathetic nature of the community	7	L5 R1 R3 G2
That only a small percentage of the population who use the Archipelago will have all the say	7	L1 R1 R3 R4 I3 G1 G2
With the population increasing there will be more pressure put on the environment and there will be no management of this	6	R1 R5 I1 I2 I3 C3
A lack of balance of expertise on the advisory committee	5	L1 R1 R3 R4 G1



		C3
A lack of research conducted in the area	5	L1 I1 I2
The objectives of the report <i>A representative marine reserve system for Western Australia</i> have been lost	5	I1
<b>Resources &amp; Policing</b>		
There may be inadequate resources to develop and maintain a reserve	15	R3 I1 I2 G1 G2 G3 C2
Resource allocation will not be fair	8	I1 I2 G2 C2
That there will be inadequate policing of the reserve	6	L1 R2 I1 I2 G1 G2 C3
Fees being implemented	5	L1 R3 I1

**Key:**

L1 – Local residents

L2 – Aboriginal

L3 – Vacation Visitors

L4 – Community service Groups

R1 – Rec. Boating

R2 – Rec. Diving

R3 – Rec. fishing

R4 – 4WD

R5 – Shacks

I1 – Conservation

I2 – Science

I3 – Education

G1 – Local Gov

G2 – State Gov

G3 – Federal Gov

C1 – Comm fishing

C2 – Aqua/pearling

C3 – Tourism

C4 – Industry

P – Press