

AUDIT OF CO-MANAGEMENT STATUS OF
SOUTH AUSTRALIAN COMMERCIAL
FISHERIES

P.J.NEVILLE

28 February 2015

Table of Contents

1. Executive Summary	3
2. Introduction.....	5
3. Background.....	5
4. Terms of Reference	6
5. Current level of Co-management in Commercial fisheries	7
5.1. The Process of Assessment.....	8
5.2. Outcomes: Co-management Levels In SA Commercial Fisheries	9
6. Issues, Opportunities or Barriers to Co-management Progress.....	12
6.1 What do the parties want?.....	12
6.2. The "Culture" of the Co-management Policy	13
6.3. The need for an Implementation Plan.....	14
6.4. The need for Drivers	14
6.5. Transparency in the Costs of PIRSA Service Delivery	15
6.6. The "Health of the Current Relationships"	16
7. Changes required to progress co-management.....	16
7.1. Lessons from a Review of Consultation Arrangements.....	16
7.2 What PIRSA and Industry want from Co-management.....	17
7.3 Elements of the Co-management Policy	18
7.4 How the process can be driven	18
7.5 Implementation of the Collaborative phase: General Case	19
7.6 Implementation of the Collaborative Phase: Specific Cases	21
7.7 Consideration of Functions for Delegation.....	22
APPENDIX A	23
List of commercial fisheries / organisations / personnel consulted	23
APPENDIX B	24
Submissions Received	24
APPENDIX C	25
References.....	25

1. Executive Summary

- 1.1 As required under the *Fisheries Management Act 2007*, the Fisheries Council developed a Co-management Policy in conjunction with PIRSA and industry, which was adopted by government in October 2013 as a means of involving industry and other stakeholders in improving fisheries management arrangements.
- 1.2 PIRSA wishes to implement this policy in conjunction with industry and has commissioned this Audit to consider the preparedness of the commercial fishing industry for co-management; and further to consider any issues, barriers or opportunities around progressing co-management in South Australia's commercial fisheries and what changes may be necessary to facilitate this progression.
- 1.3 This Audit examined 12 key commercial fisheries and the charter boat fishery, and found that all the fisheries currently fall within the Consultative phase of the co-management continuum. One fishery (Spencer Gulf and West Coast Prawn Fishery) has elements of both the Collaborative and Delegated phase of co-management for some functions involving fisheries management and hence could be considered in the Collaborative Phase; however these arrangements are not in the form of a formal collaborative model as discussed in this report.
- 1.4 PIRSA, with the agreement of most of the commercial fisheries, has returned dedicated industry licensing funds back to industry associations under "co-management contracts" to fund a range of services around improved governance, communication and advice between the associations and PIRSA. This is an important step in increasing the capacity of industry to progress co-management initiatives and its continuation and expansion should be encouraged.
- 1.5 Co-management is fundamentally about building relationships based on trust, respect and taking joint responsibility for fisheries management decisions. The Audit has found that, of the 13 fisheries, 46 percent displayed "Good" relationships, 15 percent displayed "Acceptable" relationships and 39 percent displayed a "Need for Improvement." This is purely a subjective assessment based on initial discussions but it indicates that there is a need to improve relationships as a pre-condition to allowing co-management to progress.
- 1.6 The key to improving relationships and trust is to establish a transparent decision making structure with associated embedded behaviors that is accepted by all parties. This is important for both industry and government structures.
- 1.7 When asked "what do you want from co-management?" both PIRSA and industry replied "we want a collaborative system of decision making" that supports a high level of industry engagement in decision making on fisheries management. Such a collaborative model would also include other key stakeholders in this process.
- 1.8 While the Co-management Policy has pre-conditions to be met before moving from one phase to another, there should be flexibility in applying these requirements with consideration given to the overall maturity of the relationships when encouraging negotiations to commence on co-management changes.
- 1.9 The Audit has found there are two paths towards progressing to a more Collaborative phase of co-management as it relates to improved engagement and fisheries management decision

making: - significantly strengthening and improving the performance of industry associations in leadership, governance, skills and capacity, or establishing a new structure with associated behaviors to encourage closer engagement and collaboration.

- 1.10 Improving the capacity and performance of the associations will still leave co-management, essentially, in the Consultative phase, while implementing new structure/behaviors can lead to a Collaboration phase.
- 1.11 The Audit recommends creating these new structures to be called a Fisheries Management Advisory Committee structure which would be non-statutory, have both expertise and representative members (including the industry associations or equivalents), and reporting to the Director, Fisheries Policy and/or the Group Executive Director (depending on the level of the issue) and not the Minister. This structure should include all stakeholders relevant to the fisheries management issues under consideration and also be driven by an independent chair who would operate the committee under appropriate governance arrangements and codes of behavior.
- 1.12 Funding would be in accordance with the cost recovery policy and the existing Co-management policy. However, such committees should only be appointed as needs dictate.
- 1.13 As the key purpose of this new structure is to promote a collaborative approach to decision making, the Committees could be formed by either PIRSA or the industry or done jointly. The key issue is that all parties agree on the structure so that it is accepted as the legitimate decision making committee to provide advice to PIRSA.
- 1.14 Improvements to the associations can and should continue in parallel with this new structure which should also contribute to the association's development and capacities, while PIRSA will need to expand its collaborative approaches in line with improvements in relationships and mutual trust through incorporating adaptable and flexible approaches to service delivery.
- 1.15 The committees will not need to be developed for all fisheries at the same time, but can be phased in as required in the fisheries management planning process; and they could be constructed with membership to deal with high level strategic policy across industry (cost recovery, allocation, harvest strategies) or on a fishery by fishery (or issue) basis.
- 1.16 In terms of moving to a Delegated phase of co-management, the Audit found that implementing the Collaborative phase was a higher order of priority at this time. Nevertheless, industry was interested in the following functions for possible future delegation: research and development, assistance in monitoring and assessment, operational management decision making, communication and extension.
- 1.17 The driving force behind the consideration of possible delegated functions can come from industry, managers or researchers and will need to be based on a "win/win" scenario, an accepted cost/benefit analysis (based on agreed, transparent information), a risk assessment of the changes and an environment of mutual trust and responsibility.
- 1.18 As stated above, negotiation around the possible delegation of specific services should be encouraged to proceed on a bilateral basis with industry associations (or equivalents) within the ambit of the Co-management Policy. The abovementioned committee structure, involving relevant stakeholders, could also be used to assist in this process with particular fisheries.

2. Introduction

The Department of Primary Industries and Regions SA, Fisheries and Aquaculture (PIRSA) have been at the forefront of the development of fisheries management arrangements in recent years. This has included the development of the *Fisheries Management Act 2007*, which has incorporated specific requirements for the allocation of shares to the fishery across the commercial, recreational and indigenous sectors through Management Plans. It provides for high level Management Plans to be developed for all fisheries, including formal fishery harvest strategies and ecological risk assessments, with scientific assessment processes and transparent consultation processes underpinning their development. It also provides for greater security for commercial fishing licences and established a Ministerial Fisheries Council as an independent expertise body to develop strategic fisheries management policies.

The Act changed the consultation arrangements between PIRSA and all the stakeholders involved in fisheries management and specifically required the Fisheries Council to "promote the co-management of fisheries." The changed consultation arrangements involved disbanding the statutory Fisheries Management Committees (FMC's) and replacing them with direct consultation with industry and stakeholder association bodies and their representatives, which has had an impact on co-management arrangements as discussed in this Audit report.

The Fisheries Council has had over-arching responsibility for the further development of statutory Fisheries Management Plans in conjunction with PIRSA and industry, and the associated policies on harvest strategies, allocation issues and co-management. These key management Initiatives are largely in place for the major fisheries.

Finally, the Fisheries Council, in conjunction with PIRSA and industry, developed a "Policy for the Co-management of Fisheries in South Australia" (ref.1) which was adopted by the Government in October 2013 for implementation through PIRSA as a means to assist in meeting one of the objectives of the Act i.e. "The participation of users of the aquatic resources of the State, and of the community more generally, in the management of fisheries is to be encouraged."

While the future of the Fisheries Council (and the Rock Lobster Fishery Management Advisory Committee) is under review at the time of writing as part of a broader Government wide review of statutory committees, the Co-management Policy continues and PIRSA, in consultation with industry, has agreed to proceed with the next step in the implementation of the Policy by having this independent audit of the issues surrounding the further progression of co-management in South Australia's commercial fisheries management arrangements.

3. Background

PIRSA has been exploring the application of co-management arrangements in fisheries for some time. The term "Co-management" is defined in the Co-management Policy document as "an arrangement where responsibilities and obligations for sustainable fisheries management are

negotiated, shared or delegated between government, the commercial fishing industry, recreational fishers, Aboriginal and traditional fishers and other key stakeholders such as conservation groups."

Co-management is not a "one size fits all" model or approach but involves a range of models or phases along a continuum of management possibilities depending on various characteristics surrounding the different fisheries. The Policy defines these phases, based on the FRDC National Working Group Report (Neville et al., 2008)(ref.2) as follows:

Centralised Management: when government administers fisheries legislation and takes full responsibility for making decisions on fisheries management with limited consultation with fishers and other stakeholders.

Consultative Co-management: when government administers fisheries legislation and makes decisions on fisheries management through consultative processes with input from fishers and other key stakeholders, where fisheries management decisions are discussed and debated through stakeholder based fisheries management committees, or some other similar mechanism; however, the majority of management decisions are still made by the government management agency.

Collaborative Co-management: when government administers fisheries legislation but decisions are made on fisheries management through a close and collaborative working relationship with fishers and key stakeholders; some responsibilities for decision making are negotiated and shared between government, fishers and key stakeholders.

Delegated Co-management: when government establishes a formal agreement, enabled by legislation with an organised fishing body or association to delegate certain well defined management responsibilities to the organisation under specified conditions.

The co-management literature and practice to date, supports the contention that, as management phases move from the Centralised phase through the other phases towards a Delegated phase, it reflects a growing maturity in the relationships between industry and the management agency bringing with it a growing partnership approach with collective responsibility taken for management decisions and improved management outcomes.

Of course, movement from one phase to another requires certain pre-conditions to be met (as detailed in the Co-management Policy document itself) and the attainment of these are influenced by a number of factors, including the very nature and complexity of the fishery itself.

This audit concerns itself only with the existing key commercial fisheries but necessarily discusses the range of stakeholders, where appropriate, with a view to facilitating the further development of co-management arrangements in South Australia's fisheries management.

4. Terms of Reference

This Audit of the co-management status of South Australian commercial fisheries has the following terms of reference:

1. To evaluate the current level of co-management occurring in each key South Australian fishery with specific reference to the different co-management phases identified in the *Policy for the Co-management of Fisheries in South Australia*.
2. To identify any major issues, opportunities or barriers to progress co-management in each fishing sector, regarding industry leadership capability, industry association capacity, resourcing, personnel, unresolved fisheries management matters, inter or intra sectorial conflict etc.
3. To evaluate what changes would be necessary (e.g. Industry leadership capability, industry association capacity, fisheries management matters resolved, resourcing, etc.) for each sector to move from one phase of the co-management continuum to the next, as identified in the co-management policy. This evaluation should be in reference to the functions outlined in section 3.9 of the co-management policy, which lists the functions which may be considered for delegation to industry/stakeholder organizations.
4. Provide a report to PIRSA Fisheries and Aquaculture, detailing the review and analysis of the co-management status for each key South Australian fishery, by 30 January, 2015.
5. Consult with each relevant fishing industry organisation. Fisheries to be included: Abalone (Southern, Central and Western Zones), Northern and Southern Zone Rock Lobster, Blue Crab, Spencer Gulf and West Coast Prawn, Gulf St Vincent Prawn, Marine Scalefish, Lakes and Coorong (net sector), Lakes and Coorong (Pipi), Sardine and Charter Boat Fishery.

5. Current level of Co-management in Commercial fisheries

The Fisheries Management Act 2007 in South Australia, establishes the objectives to be satisfied in the management of commercial fisheries, and, in fact, all aquatic resources in South Australia. Of particular reference to this Audit is section 7.1 (e) which states that "the participation of users of the aquatic resources of the State, and of the community more generally, in the management of fisheries is to be encouraged." This objective is further enshrined in the functions of the Fisheries Council under the Act, in section 16 (c), which is "to promote the co-management of fisheries."

The Co-management Policy was drafted by the Fisheries Council, with the collaboration of industry and PIRSA and has been adopted by government for use in fisheries management. It has also been endorsed by industry members as contained in the Business Plan of the peak commercial fishing industry body, Wildcatch Fisheries SA, which states that a key area for industry is to "work with PIRSA Fisheries and other natural resource management agencies to enhance the capacity for effective co-management policies and frameworks under policy and legislative arrangements."

Furthermore, while the future of the Fisheries Council is currently under consideration by government, Wildcatch Fisheries SA has recently written to PIRSA stating that one of their objectives is the "formalisation of co-management frameworks.....for all of industry issues/needs and fishery/sector specific management....." notwithstanding the future of the Fisheries Council.

The first terms of reference of this audit is to "evaluate the current level of co-management occurring in each key South Australian fishery with specific reference to the different co-management phases identified in the Co-management Policy". There are twelve key commercial fisheries required to be assessed, as well as the charter fishing sector, and these are as follows:

1. Abalone (Western Zone)
2. Abalone (Central Zone)
3. Abalone (Southern Zone)
4. Blue Crab
5. Lakes and Coorong (Net Sector)
6. Lakes and Coorong (Pipi)
7. Marine Scalefish
8. Prawns (Spencer Gulf and West Coast)
9. Prawns (Gulf of St. Vincent)
10. Rock Lobster (Northern Zone)
11. Rock Lobster (Southern Zone)
12. Sardine
13. Charter Boat

5.1. The Process of Assessment

The process used to evaluate the current level of co-management relied on the requirements of the Co-management Policy, in particular the pre-conditions required to move from one phase of co-management to another phase as defined in the Policy. To ascertain these particulars, the following process was utilised:

- Face to face interviews with the Executive Officers (or their equivalents) of each fishery association/organisation;
- Face to face interviews with the respective PIRSA fishery managers and their senior management;
- Reference to existing "co-management contracts" between PIRSA and relevant industry associations;
- Interviews with "independent chairs" of industry associations or management advisory committees where these existed;
- Face to face interviews with research staff of SARDI with experience in dealing with various industry groups;
- Reference to existing fishery legislation and Management Plans;
- Discussions with the peak industry body, Wildcatch Fisheries SA, through its Chair, Executive Officer and members;
- Submissions received.

While there was not time to personally meet with all the Chairs/executive management groups of each fishery, the statements of their Executive Officers (or equivalents) were taken to reflect the views of each group. The relevant discussion related to those aspects of co-management concerning the structure and governance arrangements of each group, together with aspects of the relationships, consultation, communication and co-operation between the groups and PIRSA/SARDI.

In any event, views were cross-checked through the range of processes mentioned above and this indicated a high degree of consensus. In any fishery it would be expected that a wide range of opinions would be forthcoming in relation to such issues and canvassing all of these would involve a

much more extensive survey of all fishery sectors which was not contemplated in this audit. The high degree of consistency in responses to issues canvassed gives confidence to the actual situation being represented.

5.2. Outcomes: Co-management Levels in SA Commercial Fisheries

Applying the strict sense of the phases of the Co-management Policy, all of the fisheries in South Australia fall within the consultative phase of co-management. This is not surprising, as this is most common situation throughout Australia, notwithstanding that there are examples elsewhere of collaborative phases and some limited examples of delegated co-management.

Further examination of the above general statement, however, is necessary in order to appreciate the finer nuances of the existing consultative arrangements. As stated earlier, PIRSA has been at the forefront of exploring the opportunities that co-management can offer in terms of more efficient and co-operative fisheries management arrangements. As well as enshrining the concept in legislation and having the Minister's Fisheries Council develop a Co-management Policy with industry, PIRSA has also implemented "co-management contracts" with those industry associations which have agreed to raise funds through licences for particular co-management purposes. These purposes involve a number of operations concerning principally improved association governance, communication/ extension and advisory arrangements both within and between their industry sector and PIRSA. These functions have mainly been carried out by the Executive Officers. Where such contracts don't exist, the industry sector has directly funded similar arrangements themselves to improve overall governance, advice and communication..

In other jurisdictions, there are isolated examples of industry providing services to government but not with formal contracts across most commercial fisheries, and not with the support of a government adopted Co-management Policy containing the comprehensiveness of the South Australian model. Also, no other jurisdiction has undertaken a comprehensive co-management audit across the key commercial fisheries.

The PIRSA approach is seen as a first step in improving the capacity, resourcing and professionalism of industry associations which traditionally have suffered from inadequate resourcing and skills development in general governance and overall capacity.

Such co-management contracts allow for a range of other functions to possibly be undertaken by industry by agreement between PIRSA and the particular industry association. For example, in the case of the Spencer Gulf and West Coast Prawn fishery (the most advanced fishery in terms of co-management arrangements), although, in a general sense, broadly operating in the Consultative management phase, it has negotiated elements of both the Collaborative and Delegated phase for particular functions and services.

In this case, its co-management contract covers the usual functions of improved governance within the association and advice, communication/extension functions, but also includes undertaking agreed research, monitoring, data collection and strategic planning activities. It also covers "the Coordinator @ Sea (Real-Time Management) Services" which involves both collaborative services to

assist stock assessments and delegated functions to determine fishing strategies in real time as the season progresses.

Interestingly, however, a recent FRDC research project around co-management options in this fishery found no desire by industry to extend the co-management framework beyond the current arrangements. This was based on a number of issues which shall be discussed further in this Audit, but revolved around the costs and benefits of further changes, issues about harmony among all members and concerns about the legal responsibility of taking on extended functions through delegations from PIRSA.

At the other end of the spectrum, is the Gulf of St. Vincent Prawn Fishery, the Charter Boat Fishery and the Marine Scalefish fishery. The Marine Scalefish Fishery, while it has a co-management contract, suffers from weak consultative arrangements which arise from the very diverse nature of the fishery and fishermen themselves, a difficult governance structure, a number of different stakeholders apart from commercial fishermen themselves and resultant complex and multi-layered consultation arrangements. Similar comments apply to the weak consultative arrangements in the Charter Boat fishery and the Gulf of St. Vincent prawn fishery. While these fisheries are also described as being in the Consultation phase, the character of the consultation leads fishery representatives to believe it has moved backwards towards a centralised phase. This concern has been expressed in a number of fisheries despite the co-management contracts and is centred on the quality and nature of the consultation and decision making.

All of the other fisheries are positioned in the Consultative phase with their particular placement dependent upon three key factors viz., how simple or complex is the fishery (in terms of sharing access and allocation issues with other stakeholders), how mature is the industry leadership (in terms of interacting with other stakeholders and PIRSA), and how effective are the governance arrangements in terms of internal dealings with members and external dealings with PIRSA.

Thus, while all the fisheries may be classified as being in the Consultation phase of co-management, the quality of that consultation is necessarily impacted upon by the above three factors; thus both PIRSA and industry have a responsibility to ensure that consultation is effective. This is why the Co-management Policy itself recognises that any movement towards greater co-management will not be a "one size fits all" approach but rather through a careful phased approach that allows industry and stakeholders (and PIRSA) to build their relationships and capacity over time.

Another issue in relation to the Policy and its development is the "prescriptive" nature of the preconditions required for moving from one phase to another. It details for example that to move from a Consultative phase to the next Collaborative phase, the organisation/association must, among other things, have "an independent chair and appropriate stakeholder involvement." On the face of it, these two requirements would rule out all current associations from progressing beyond the Consultation phase, regardless of how "mature" the association might be, or how responsible its dealings with PIRSA might be. While some associations have an "independent" chair, none have other stakeholders on their Boards (although a few have other stakeholders attend some of their sub-committee/consultative committee deliberations). The statutory RLFMAC has prescribed membership involving an independent chair and a range of expertise and representation, but it is not an industry association.

It should be acknowledged that the Co-management Policy does state that the preconditions are proposed "as a basis for initial discussion between PIRSA and industry" and further that "all parties will need to demonstrate flexibility in the development of co-management arrangements..." This issue will be discussed further in this Audit, but indicates that negotiations should not be prevented merely because of an inability to satisfy all the above preconditions.

In addition to the descriptions of the various phases of co-management, co-management can also be described as a different set of behaviors or culture between the parties. That is a movement away from the antagonistic, "them verses us" approach, to a more collaborative, joint partnership approach where all parties contribute to and accept joint responsibility for the resultant management outcome. This requires both an appropriate structure for decision making, as well as appropriate "maturity" among all participants (PIRSA and industry) in their performance and representations. In a very real sense, this is the underlying objective of co-management and ultimately underpins the strength of the social licence to operate for commercial (and other) fisheries.

On these criteria, this Audit has collected information, on a purely subjective basis, of the state of the broad relationships between industry and PIRSA/SARDI. Of course, the views are influenced by the particular personalities and histories involved and so can only be treated as very broad indicators of the "health of the current relationships." These results can be categorised as follows:

Of the thirteen fisheries considered, 46 percent displayed "Good" relationships, 15 percent demonstrated "Acceptable" relationships and 39 percent displayed a "Need for Improvement." Thus just over 60 per cent could be characterised as possessing the necessary quality/maturity of relationships required as a precursor to developing co-management arrangements further. The judgments here reflect a combination of characteristics involving industry leadership, association capacity, personnel, resourcing and governance. This will also be discussed further in this audit.

Finally, comments about the current level of co-management in fisheries cannot be separated from the recent history of events impacting on relationships and structures.

The introduction of the new Fisheries Management Act in 2007 introduced significant changes, particularly to the way fisheries management consultation and decision making were undertaken. A Ministerial Fisheries Council was formed as an expertise body to undertake higher level strategic policy formulation (including the development of the Co-management Policy), while the range of statutory Fisheries Management Committees (FMC's) which were appointed by and advised the Minister on fishery sector management policy were all disbanded. In their place, it was decided that PIRSA would consult directly with the individual fishery associations or sector executive management groups to get the "real views" of fishermen and improve decision making.

This came about because of the inability of the FMC's to reach an agreed position on many issues, the appointment of members by the Minister meant that members reported to the Minister often at the expense of their own constituency, industry members not on the FMC going around the process where they disagreed with a decision and arguing for a different decision to the Minister, poor communication between FMC members and their constituency and poor and/or inappropriate performance by some FMC members which undermined the capacity of the FMC's to make decisions within the committee structure.

Further, as indicated previously, the Government has commenced a review of the necessity of all statutory Boards etc., across government and the future of the Fisheries Council, and the statutory Rock Lobster Fishery Management Advisory Committee (RLFMAC) is uncertain. The Government has indicated its decision to abolish both the Fisheries Council and the RLFMAC, however, this will require further legislative reform to be implemented which must go through a parliamentary process. This makes it even more important that PIRSA reinforces its intentions to proceed with implementing the Co-management policy.

This history has impacted on the evaluation of the levels of co-management in SA fisheries. In particular two strong views have come forward in this Audit. Firstly that the blanket removal of the FMC's has been a backward step for co-management in that the resulting individual and separate consultation has lacked transparency and collaboration in decision making; and secondly that the costs of these changed consultation arrangements are being met by the commercial fishing industry but this is not the case for other stakeholders where the government provides funding to a number of bodies e.g. Recfish SA and the SA Conservation Council.

Again these issues will be discussed further but are mentioned here as they affect industry perceptions of what the government and PIRSA wish to achieve from co-management.

6. Issues, Opportunities or Barriers to Co-management Progress

The discussion of issues, opportunities or barriers to co-management progress is all linked together and follows from the preceding discussion of the current status of co-management. An issue can be a barrier and also can represent an opportunity to overcome that barrier to progress co-management. Firstly therefore this discussion will concentrate on the issues while later discussion will outline barriers and opportunities and the related changes needed to progress co-management.

6.1 What do the parties want?

The preceding section has alluded to a number of issues concerning the progress of co-management in SA's commercial fisheries and these will be discussed further in this section. However, the key strategic issue which has arisen in this Audit is "what do the parties want from Co-management?"

This is an important question as it goes to the heart of expectations about co-management and what it may be able to deliver for both parties. At the very commencement of this Audit, participants gave widely diverging responses to this question from "a way to reduce industry costs and licence fees" to "a means of ultimately strengthening our social licence to operate." Both of these are possible under the successful implementation of appropriate co-management arrangements in particular fisheries. However, as the Audit progressed, the real issue emerged which was "which is the best fisheries management decision making model?" under which co-management can be progressed in order to achieve a variety of possible outcomes for both PIRSA and industry including the possible delegations of functions.

The Audit also found that there are two elements which are critical to any such decision making model: the structure of the model and the behaviors of members within the structure. Comments

previously in this Audit have shown that failures on both of these points led to the often disappointing performance and subsequent demise of the statutory FMC's as the principal decision making model and means to facilitate collaboration and partnership among the parties.

Likewise, the Audit has found that there is dissatisfaction with the current Consultation phase primarily because of a lack of transparency and accountability in decision making which has led to a weakening of the desired "partnership" culture and of joint responsibility for the management outcomes. The consultation process has not allowed for an exchange of views "across the table" among all stakeholders, nor a "face to face" debate about the merits of each case or option and hasn't led to any increase in understanding or appreciation of different stakeholder's positions. Importantly, however, when asked "what do you want out of co-management?" Both PIRSA and industry responded with essentially the same answer – "we want a Collaborative system of decision making" as a means of encouraging a partnership approach to co-management.

However, industry is currently skeptical about PIRSA's intentions as they believe it will not give up staff, budgets or resources to industry following recent government cut-backs, it must retain a number of key functions in research and compliance (which make up 75% to 80 % of budgets) and it has recently weakened co-management through disbanding the FMC's, and now the Fisheries Council and the Rock Lobster Fishery Management Advisory Committee are under threat of disbandment notwithstanding their good performance record. These issues need to be addressed in an open way to improve trust and relationships.

Acknowledging that the Minister has ultimate decision making authority under the Act, operationally the desire remains for greater transparency in decision making ie. a process where all those involved in the decision making are present at the same time, all the information, research and industry knowledge is available and debated and all industry, management, other stakeholders views are discussed and a decision (or options) are agreed and passed forward to PIRSA for implementation; further, where implementation cannot be subsequently delivered, for whatever reason, then there is an accountability process back to committee to explain the reasons for this and / or perhaps to reconsider the matter.

6.2. The "Culture" of the Co-management Policy

While it is acknowledged that the Policy was put together by the Fisheries Council with joint participation by industry and PIRSA, there is a real danger that it risks lapsing into a "top down" policy from government, rather than continuing to be seen as a joint policy with commitment from both (or all) parties.

There are a number of reasons for this. Firstly, as noted above there is a requirement for a clear statement of what PIRSA and industry wish to achieve from the Policy. Secondly, in the absence of this, industry remains suspicious that it will be used to cost shift PIRSA costs onto industry in different areas. Thirdly, the emphasis in progressing co-management arrangements is directed at the changes industry has to make (and in some cases fund) to its governance, leadership structures, skill sets etc., but nothing about how PIRSA will need to make changes internally to accommodate a more flexible service delivery system and the new culture and skill sets it requires. Fourthly, the

preconditions suggested for industry to progress along the different phases, contain elements of perceived "risk" to industry structures and governance without any guarantee of benefits e.g. Appointment of independent chairs and external members.

On this latter point, there is a strong feeling among industry that there are no advantages to be gained from external appointments, especially where the commercial industry has little involvement with recreational or indigenous fishers and little or no perceived environmental impact. In such cases, industry would prefer a "second tier" form of engagement outside their association board structure, where the association, or members of its management committee, engage directly with other stakeholders or interested parties outside of the association meetings.

6.3. The need for an Implementation Plan

The Co-management Policy does not have a section clearly setting out an Implementation Plan to address the issue of "where to from here? /how do we start the process? " Certainly the Policy does present in section 3.4 relevant Guiding Principles which should be satisfied in any implementation of further co-management; and these rightly indicate that "one size does not fit all," that the pace of implementation will be different between fisheries and that the Policy is not prescriptive in terms of which approach should be applied to particular fishery scenarios.

However, the Guiding Principles also state that "PIRSA has established a process to support industry associations to promote co-management activities." It is assumed that this refers to the funding of the Executive Officer's positions in some associations, but it is unclear if the Executive Officers are able to give priority to promoting co-management through the association in view of the myriad of issues their Boards expect them to promote and also whether they are the most appropriate person to drive such a cultural change through the association board and its members. In reality they can only pursue issues as directed by their association members otherwise they will face a conflict of interest in their role of driving co-management change through looking at a range of other alternative options. Although PIRSA also consults with association executive members and fishers, the Executive Officers are critical as they are the window to the association and also are on the Wildcatch Fisheries SA advisory committee and are the most accessible to PIRSA staff.

Finally, the principles also refer to the need to undertake cost/benefit analyses prior to any change and to ensure any activities are cost-effective and balanced against the efficient and transparent delivery of services. However, it is unclear how this process should commence, where the resources/skills would come from and whether it is the responsibility of the Executive Officers, the Association's Executive Management or PIRSA managers.

Of course the outcomes from this Audit itself should help to inform the development of such an implementation plan.

6.4. The need for Drivers

Related to the need to be clear about the next steps in implementation, is the issue of who are the drivers behind implementation. Experience has shown that unless someone accepts responsibility to

further consider co-management arrangements, then the Policy will lapse and all effort will focus on the day-to-day issues only and not on how co-management may offer alternatives for improved fisheries management in the longer run.

This is why it is important for the various parties to state what they wish to achieve from co-management, as this will largely determine who needs to be the "champion"/ driver for co-management e.g. what incentives exist in PIRSA to drive co-management (even from the consultative to the collaborative stage)?, should Wildcatch Fisheries SA act as the catalyst for various associations wanting to drive it? This champion, in fact, could come from fisheries managers who see opportunities for change, from researchers, from industry associations or individual fishermen themselves with a strong view as to what needs to change.

Certainly PIRSA has commenced driving it to the next step by initiating (with industry) this Audit to identify the issues, opportunities and barriers, as well as necessary changes; further, Wildcatch Fisheries SA, has written to PIRSA wanting to "develop appropriate co-management frameworks." It is important that the dialogue be kept alive by the early identification of individuals who will become the drivers of promoting the further consideration of co-management opportunities.

6.5. Transparency in the Costs of PIRSA Service Delivery

An issue which relates to the transparency of service delivery matters is the transparency in the current cost recovery model for the delivery of fisheries management services through PIRSA/SARDI. Noting that the cost recovery model is an established government policy, any lack of sufficient transparency in the detail of the costs of service delivery constrains the ability of industry, or others, to undertake the necessary cost/benefit analyses of proposed changes. Certainly some in industry feel that there is not sufficient transparency and accountability in the manner in which such costs are presented to allow a detailed cost/benefit analysis to show the true picture under alternative scenarios. Without this it is difficult to establish "win/win" scenarios from changes.

While the existing cost recovery details may be sufficient for determining licence fees, greater transparency in the costs of delivering various services (both through PIRSA/SARDI and industry) would have to form part of the negotiation over future changes to the delivery/delegation of various functions.

It should also be noted that, from recent examples in other fisheries, it is generally recognised that while costs are an integral part of establishing a cost/ benefit analysis for any new co-management arrangements, examples to date have shown that significant cost savings are not always achievable; rather it is the combination of benefits that arise from joint collaboration in decision making and a genuine partnership approach in delivering the most efficient and effective fisheries management arrangements. These are outlined in section 3.5 of the Co-management Policy and should equally form part of the basis of the cost/benefit analysis as part of undertaking negotiations for change.

6.6. The "Health of the Current Relationships"

Some perceptions were provided in the previous chapter relating to the health of the current relationships between PIRSA/SARDI managers and staff and industry personnel. This presented a picture where just over 60 percent of the fisheries demonstrated good or acceptable relationships in terms of the prospects for greater joint co-operation/collaboration around fisheries management. While there are many cases of excellent working arrangements, it is not unexpected that, in a situation where PIRSA has legal responsibilities for the protection of the fisheries (which entails difficult decision-making), that the relations will be strained and difficult at times.

Comments from the Audit included that there is still a lack of trust and respect in some fisheries towards PIRSA/SARDI managers (and vice versa), that conversations often remain adversarial, that "independent chairs" often don't act as true "independents," that the high turnover of PIRSA staff has affected performance and relationships, that formal meetings often are unsatisfactory due to the continued adversarial behaviors and poor quality of representation and there is no culture of mutual responsibility.

This should not be taken as directed criticism of PIRSA or industry performance, as such situations are commonly found in many fisheries around Australia. Rather they are presented here to demonstrate the comments mentioned earlier that advancing co-management has two elements, the structure and operation of formal meetings, and the behavioral performance and expectations on chairs and members to use the forums to improve the decision making processes rather than circumvent it. Often this is a reflection of a lack of leadership capabilities among both parties which can hinder the process and requires addressing.

7. Changes required to progress co-management

The previous chapters have treated the various fisheries as a collective entity rather than highlighting aspects of each individual one. This is because it is felt that, while there are significant differences among them, the discussion applies to all of them to varying degrees. It would be unnecessary repetition to treat them individually at this level of discussion. Also more individually specific comments on each fishery and its association and related performance would require an expanded Audit and process.

However, wherever possible, this chapter will identify differences in fishery sectors and/or associations in order to illustrate key points in progressing co-management arrangements.

7.1. Lessons from a Review of Consultation Arrangements

South Australia has been through a changing process of arrangements with industry over recent times. From a Centralised Phase with informal government/industry consultation with individuals, groups of fishers or with a peak industry body; then to a statutory model of a Consultation phase through formal Fisheries Management Committees, and further still, to a combination of a statutory Ministerial Fisheries Council and a number of voluntary industry associations, as well as specific statutory committees for particular purposes (Rock Lobster Fishery Management Advisory

Committee). Currently, the Government is reviewing the continuation of the statutory committees so further changes are expected.

There are a number of lessons from this history. Firstly, despite these changes, the state of the relationships between PIRSA and some industry groups are still in need of improvement; that the best example of progressing co-management arrangements (the Spencer Gulf and West Coast prawn fishery) occurred despite all of these changes and prior to most of them; that sector specific committees can work well (e.g. RLFMAC) where they are designed and constructed appropriately and that strategic policy committees (e.g. the Fisheries Council), even when performing appropriately, can suffer from a loss of support when not connected to "grass roots" industry views and needs.

These lessons can be expressed in another way i.e. -

- Co-management will progress if there is seen to be a win/win demonstrated;
- The demonstration needs to be based on accepted facts and knowledge;
- The facts and knowledge need to be presented and debated in an organised, structured environment with chairing to encourage mutual respect for respective views;
- The structure does not have to have a statutory base, but has to be accepted by all parties as the pre-eminent body for advice;
- There has to be transparency in how the decisions (or options) are made and how the decision is communicated forwards and backwards to the various parties.

Again, this shows that co-management success has both an element of structure and an element of behaviors and these will be discussed below.

7.2 What PIRSA and Industry want from Co-management

The first change that is required to progress co-management is to overcome the barrier of suspicion from both industry and PIRSA as to what are the real goals behind progressing co-management; Industry being worried that PIRSA will not give up any services, staff or funds; and PIRSA concerned that industry will use co-management simply to concentrate on driving costs of services down irrespective of its impact on the effectiveness of such services and for fisheries management.

The Audit Review has found that, despite the above, both parties have essentially the same goals currently for co-management. This is to move from the existing Consultative phase to a genuine Collaboration phase. Both see this as achieving a higher level of industry partnership and engagement in discussions and decision making on fisheries management.

This represents a real opportunity to remove some barriers as discussed earlier and have industry and PIRSA working together towards the same goal in co-management.

7.3 Elements of the Co-management Policy

As we have seen, elements of the Co-management Policy, if taken literally, would prevent movement from the Consultative to the Collaborative phase as no association currently satisfies all the preconditions in the policy (especially independent chair and external members on the board). However, the intent of the Policy is that associations are well established, with sound governance arrangements to represent the views of members, financially sound and mature in dealings with government/PIRSA. Associations can be judged to possess these qualities without satisfying all the preconditions outlined in the Policy, notwithstanding the highly desirable nature of these preconditions as a goal to work towards.

It should be emphasised that the list of preconditions contained in the Co—management Policy to move between phases are “a basis for initial discussion between PIRSA and industry” and need to be interpreted taking into account the history of the governance, performance and relationship dealings over time.

7.4 How the process can be driven

Currently PIRSA, in discussions with industry has formalised “co-management contracts” with a number of the commercial fishing sectors through their associations. Essentially, the sectors who wished to be involved obtained the support of their members to voluntarily increase their licence fees, with PIRSA collecting and returning these funds to the association through these contracts. In reality, the funds are used to support the employment of Executive Officers to undertake a number of functions specified in the contract largely around enhancing governance arrangements within the association and its members, as well as improving advice, communication and extension externally with PIRSA. The contracts vary slightly with each association and can allow for a range of services to be undertaken; in the case of the Spencer Gulf and West Coast Prawn Fishermen’s Association this contract includes the delegated functions discussed previously.

While not all industry sectors have opted to be part of these arrangements, this is a positive first step in strengthening the capacity and skills of associations in areas of governance, advice, consultation and communication and contributing to their developing maturity and professionalism. Those sectors which are not part of this process generally fund their own Executive Officers by raising their own funds internally. Furthermore, the Executive Officers are members of the Council Advisory Committee which provides advice to the Wildcatch Fisheries SA Council itself.

This helped to strengthen the Consultative phase of co-management by providing a consistent and readily available link between PIRSA/SARDI and each industry sector on a wide range of fisheries management issues. Of course, the Executive Officers are the employees of the association and do not decide policy; therefore PIRSA must also consult with the executive management committees of the associations and any other management committees set up within the associations.

Notwithstanding these developments, there remain serious shortcomings with the current Consultative process. These include the widely varying capacities, skills and maturity within associations, difficulties in obtaining an association view on particular issues, poor governance arrangements within some associations, the reluctance for associations to encompass independent

chairs (with a couple of exceptions) and any external expertise on their boards. The association performance and reliability can be fragile as it relies heavily on the availability of a capable and experienced leader/chair supported by a competent Executive Officer.

Of course to be fair, the association performance is heavily influenced by the nature of the fishery itself, its complexity and the diversity of stakeholders, as well as also by the capability, performance and leadership of PIRSA staff themselves.

The issue remains as to whether the Consultative model based around sector associations can be improved to the extent that it would be the preferred phase of co-management or not and whether it could deliver a transparent, collaborative decision making process ?

This would require strengthening the governance arrangements, mentoring programs for future association/independent leaders, improving the communication channels with all licence holders within the sector or association, increasing the professionalism and maturity of associations so that they adequately represent all the views and can unify a sector's view in discussions with PIRSA.

While this is all desirable, it is not the government's responsibility , other than to encourage it and guide it, but it is ultimately industry's decision to make, as well as to find the funding necessary to undertake the above changes.

Nevertheless, this Audit has shown that while consultation is critical, industry want a higher level of industry engagement in discussions on fishery management and future decision making. They want to move to a Collaborative decision making model of co-management and these views are also reflected in PIRSA's intentions for co-management.

The drivers for this therefore will need to be both industry and PIRSA. Industry, through recent Wildcatch Fisheries SA correspondence, has indicated they wish to commence negotiations on a formalisation of co-management frameworks for both "all of industry issues" and "fishery sector specific management"; while PIRSA has initiated this independent Audit of co-management preparedness among the fishery sectors. These represent opportunities to continue the momentum towards more effective co-management.

From this it is concluded that drivers and leadership are established and the direction for co-management agreed. What remains is to establish what form the Collaborative phase should take and whether any sectors/PIRSA are interested in further progressing towards the Delegation phase for particular functions.

7.5 Implementation of the Collaborative phase: General Case

As discussed earlier, the Co-management Policy sets out the requirements to move to the Collaboration phase in terms of the developing governance and maturity/professionalism of associations and their structure. Also above it is pointed out that this should not be overly prescriptive, that none of the existing associations satisfy all these requirements and they may or may not choose to do so in the future.

Given this situation, a changed approach is needed to facilitate a move to the Collaborative phase, while giving associations time to make the changes they decide on and consider most suited to their fishery sector.

The Audit has found significant support to re-consider a formal Collaborative phase based on the previous Fisheries Management Committee structures but with key changes following the lessons from previous practice which caused these to be disbanded.

This involves a consideration of both structure and culture/codes of behavior.

This Audit therefore recommends that the Collaboration phase be implemented by re-constructed "Fisheries Management Advisory Committees" (FMAC's) with the following characteristics.

Dealing with structure/governance firstly, the FMAC structures need to have the following changes from the old FMC's:- namely be non-statutory, reporting to the Director, Fisheries Policy and/or the Group Executive Director, PIRSA depending on the level of the issue under consideration. The other key change is that the association/s should be represented in their own right on the FMAC (to overcome the problem of no "grass roots" ownership of decisions with the FMC's); other membership to include PIRSA representatives (management, research and compliance members), other stakeholders relevant to the fishery or issue (e.g. recreational fishers, conservation members, indigenous members), other invited external expertise as required for the fishery or issue and an independent chair. The independent chair is critical to ensure that governance arrangements, codes of behavior and reporting are appropriate.

The appointment of representatives from the industry association is also based on the fact that this committee is intended to be a mechanism to promote the development of the Collaborative phase of co-management (rather than the committee simply being only a body charged with providing advice).

This being the case, the Committees could be formed by either PIRSA or the industry or done jointly. The key issue is that all parties agree on the structure so that it is accepted as the legitimate decision making committee to provide advice to PIRSA. For this, there needs to be transparency among those present as to how the decision (or options) have been made and then progressed for implementation through PIRSA. Any change or variation to the recommendations should be communicated back to the committee with reasons for the change or with a request to re-consider the matter.

Funding should be in accordance with the cost recovery policy and the Co-management Policy, however, such committees should only be appointed progressively as needs dictate.

Returning now to deal with culture/codes of behavior, the functioning of the FMAC needs to be governed by behaviors which are accepted and followed as meeting practice. These should be based on a culture of mutual respect for all views, consideration of all information tabled and the right for all members to be heard. Members must respect that the decision making process has to occur within the confines of the committee discussions based on the available information presented and debated; members should not take the issues outside this process while it is being properly formed and decided. The decision of the committee should be by consensus, or if this is not possible, then alternative options should be forwarded. This then constitutes advice to PIRSA where the final

decision or action will be taken or progressed to the Minister. Members not willing or able to satisfy these requirements should not remain members on the committee.

At all times, it is the responsibility of the chair to ensure these behaviors are followed and that the committee operates effectively.

The construction/membership of these committees will vary somewhat from fishery to fishery depending on the fisheries management issues and the practicalities of achieving certain representation. Also, in terms of timing, initially there may not be a need for each fishery to progress to this Collaborative phase at the same time. However, it is felt that this will provide the best chance to move to the next stage of collaboration in co-management which both parties have indicated they want to achieve. It should provide an improvement in the trust, respect and culture of dealing with each other, provide an opportunity to learn from each other's point of view, provide for greater engagement by all parties and for greater transparency in the decision making process.

It can be implemented while the process of improving the performance of associations is continuing and can be phased in as the needs of each fishery determine; just as discussions on possible delegations of functions to individual associations could continue to occur either bi-laterally or through the committee structure.

Of course, any circumventing around this recognised Collaborative phase would undermine its effectiveness and ultimately render it useless; this would have the effect of reversing the co-management process back to the Consultative or even the Centralised model.

7.6 Implementation of the Collaborative Phase: Specific Cases

The model above needs to be applied to deal with both the broad industry wide strategic issues as well as the sector specific management issues. If the Fisheries Council is disbanded, the above structure could apply to a committee to deal with the broad strategic industry issues with adjustments in the seniority of membership of respective organisations, where appropriate, and adding Wildcatch Fisheries SA in lieu of individual associations. It would still report to the Director, Fisheries Policy/Group Executive Director who would, where appropriate, forward issues to the Minister where Government approval is necessary. In some cases, the Minister may delegate responsibility for final decision making to the Director, Fisheries Policy/ Group Executive Director.

The model can serve the sector specific management issues by appropriate changes to seniority and representation in membership. It can also cater for a reconstituted RLFMAC, should this committee be disbanded, with appropriate membership and terms of reference. The rest of the operating arrangements would be the same for each committee.

Another way of looking at the specific structures of the FMAC's is to appoint a "core" membership for each one and add other members as required for the particular needs of the fishery or issue. It would be important, however, that such other members are considered equal to the core group so that there are not "two classes" of members. It may be the case that with some issues it would be appropriate to have a committee structure consisting only of expertise based members, however

this would be for a specific purpose and not as part of the progress towards a Collaborative phase of co-management.

7.7 Consideration of Functions for Delegation

The Audit raised the issue of the possible functions which might be considered for delegation to particular industry sectors in the case of moving further along the co-management continuum to the Delegation phase. Comment on this was received from both industry and PIRSA sources in relation to the various fishery sectors.

The question itself relates to the basic one of the "maturity" and leadership of each association and/or industry body, as it does to the preconditions of moving to this phase under the Co-management Policy. It has been noted above that none of the existing associations satisfy all of the preconditions for either moving to the Collaborative or the Delegated phase, however this has not prevented a dialogue and negotiation taking place in the past and the agreement to enter a delegated co-management agreement, as seen in the case of the Spencer Gulf and West Coast Prawn Fishermen's Association.

Co-management and its progression through the various phases, is ultimately about a negotiation among willing parties to improve the efficiency and effectiveness of delivering certain fisheries management services and this is central to the discussions on progressing co-management.

Therefore, while the Policy rightfully establishes guidelines/preconditions which give the best chance of co-management succeeding, it should not prevent a dialogue commencing among two or more willing parties to change the way services are delivered.

This is currently occurring, particularly in the areas of various research projects involving industry and researchers, biological data collection, stock/catch monitoring and assessment, economic data collection etc., and is driven by the knowledge that using industry infrastructure and expertise in such activities results in a more efficient outcome, is a "win/win" scenario and builds partnerships and trust among the parties. Another example is the work by fishermen to achieve the Marine Stewardship Council certification of the Lakes and Coorong net fishery.

The previous section outlined the development of an FMAC structure for fishery sectors to enhance greater involvement of industry in fisheries management. This structure could also deal with the issue of possible delegation of functions in particular fishery sectors.

With respect to the functions listed in section 3.9 of the Co-management Policy, a number of fishery sectors and PIRSA managers have indicated a desire to look at the following functions:

- research and development
- monitoring and assessment
- some operational management decision making
- communication and extension

This applies particularly to the abalone industry, Lakes and Coorong net fishery, Spencer Gulf and West Coast prawn fishery and the Rock Lobster fishery.

There may be other examples also, but the missing step is the need to undertake preliminary cost/benefit analyses in particular cases to test the viability of proposals.

Key elements in this are sufficient transparency in existing PIRSA costing of services, appropriate financial and professional capacities of associations, adequate governance arrangements and clarity in the description and expectations of the benefits.

As mentioned above, any of the parties can take the initiative in the next steps, but what is important is awareness by all parties that co-management discussions on how to make fisheries management more efficient and effective are invited and encouraged.

It is important, however, that expectations are kept realistic and the pace of change is acceptable to both parties and within the capacity of both parties to fund and adapt to; this means an acceptance of the bounds of what is negotiable and practically achievable in the time frames and what is not.

The foregoing has borne out what recent research (Neville 2011) (ref.3) and industry trials have demonstrated to date:

- The design, timing and resourcing of co-management arrangements will be peculiar to each fishery, but inevitably follow a gradual, cautious and phased approach;
- That funds and staff resources (both from industry and PIRSA) have to be committed upfront as part of the satisfactory establishment of new service delivery arrangements;
- Associations have to have sufficient skills, resources (or be able to access those resources) and a sound governance/leadership structure to bring along their members in support of the new arrangements;
- The fisheries agency (PIRSA) has to develop new, more flexible approaches to service delivery and skills in the areas of transparency of costings, cost/benefit analysis, risk assessment and auditing and quality control of service delivery.
- Usually, it has been difficult to find significant cost savings in the trials so far, however, cost savings in the longer term remain a key driver, while in the short run the benefits accrue to issues of greater transparency in decision making, improved industry engagement and relationships, greater collaboration and joint responsibility for decisions, improved understanding of each other's respective positions and the building of trust.

These benefits are important as they lay the groundwork for greater joint responsibility in fisheries management decision making and ultimately assist in building the social capital needed within the community at large to ensure the continuance of commercial fishing.

APPENDIX A

List of commercial fisheries / organisations / personnel consulted

1. Wildcatch Fisheries SA: Jonas Woolford (President), Franca Romeo (E.O.)
2. Abalone (Western Zone): Abalone Industry Assn. of South Australia Inc. ;Jonas Woolford (Chairman), Michael Coates (E.O.)
3. Abalone (Central Zone): no Assn., Michael Tokley (E.O.)

4. Abalone (Southern Zone): Southern Zone Abalone Management Inc.; Rory McEwen (Chairman), Arthur Martel (E.O.)
5. Blue Crab Fishery: SA Blue Crab Pot Fishers Assn.; Neil MacDonald (E.O.)
6. Charter Boat Fishery: Surveyed Charter Boat Owners and Operators Assn.; Neil MacDonald (E.O.)
7. Lakes and Coorong Fishery: Southern Fishermen's Assn. Inc.; Neil MacDonald (E.O.)
8. Lakes and Coorong Fishery: Goolwa Pipi Harvesters Assn.; Roger Edwards (Chair)
9. Marine Scalefish Fishery: Marine Fishers Assn.; Nathan Bicknell (E.O.)
10. Rock Lobster (Northern Zone): SA Northern Zone Rock Lobster Fishery Assn. Inc.; Kyri Toumazos (E.O.)
11. Rock Lobster (Southern zone): The South Eastern Professional Fishermen's Assn. Inc.; Justin Phillips (E.O.)
12. Rock Lobster: Rock Lobster Fishery Management Advisory Committee; Richard Stevens (Chair)
13. Sardine Fishery: South Australian Sardine Industry Assn. Inc.; Paul Watson (E.O.)
14. Prawn Fishery (Spencer Gulf and West Coast): Spencer Gulf and West Coast Prawn Fishermen's Assn.; Glen Davis Chair, Simon Clark (E.O.)
15. Prawn Fishery (Gulf of St. Vincent): GSV Prawn Industry Assn. Neil MacDonald (E.O.)

Fisheries Research and Development Corporation

1. Patrick Hone, Executive Director
2. Crispian Ashby, Program Manager

PIRSA / SARDI PERSONNEL CONSULTED

3. Prof. Mehdi Doroudi Group Executive Director, PIRSA
4. Sean Sloan Director Fisheries and Aquaculture Policy, PIRSA
5. Fisheries Managers: Annabel Jones, Brad Milic, Lianos Triantafillos, Michelle Besley, Jonathon McPhail, Keith Rowling, PIRSA
6. SARDI Researchers: Dr. Stephen Mayfield, Prof Tim Ward, Dr Greg Ferguson, Dr Adrian Linnane, Dr Rick McGavey, Dr Krystal Beckman.

APPENDIX B

Submissions Received

1. Michael Coates, Abalone Industry Assn. of South Australia Inc.
2. Roger Edwards, Goolwa Pipi Harvesters Assn
3. Jonas Woolford, Wildcatch Fisheries SA
4. Nathan Bicknell, Marine Fishers Assn.

APPENDIX C

References

1. "Policy for the Co-management of Fisheries in South Australia" October 2013 Government of South Australia, Primary Industries and Regions SA, Fisheries & Aquaculture.
2. "Co-management: Managing Australia's fisheries through partnership and delegation," Report of the FRDC'S National Working Group for the Fisheries Co-management Initiative. Project No. 2006/068. Fisheries Research and Development Corporation.
3. "Review of Co-management in Australia's Fisheries," Report of the FRDC Working Group. Project No. 2011/216. Fisheries Research and Development Corporation.

Appendix 2