



# **Findings from the Aquatic Animal Welfare Workshop**

**Raising awareness of the guidelines developed by the  
AAWWG (Aquatic Animal Welfare Working Group) with  
industry and review their adoption, uptake rates and utility**

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**2018**

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Raising awareness of the guidelines developed by the AAWWG (Aquatic Animal Welfare Working Group) with industry and review their adoption, uptake rates and utility 2017/221  
2018

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In submitting this report, the researcher has agreed to FRDC publishing this material in its edited form.

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The authors would like to acknowledge the input and participation by all the delegates who attended the workshop and gave of their time freely for this activity.

## Abbreviations

AAW – Aquatic Animal Welfare

AAWS – Aquatic Animal Welfare Strategy

AAWWG – Aquatic Animal Welfare Working Group

DAWR – Department of Agriculture and Water Resources

E-NGOs – Environmental Non-Governmental Organisations

# Executive Summary

## Introduction

During the 2017 FRDC Lead, Collaborate, Partner Stakeholder Workshop delegates identified a need to assess the success of the work undertaken by the Aquatic Animal Welfare Working Group (AAWWG) from 2005 – 2013 and to determine what research, development and extension activities were needed to progress this work to achieve greater adoption by industry. The AAWWG constituted representatives from the commercial wild capture fishing, recreational fishing, aquaculture and ornamental/aquarium sectors, and from animal welfare non-government organisations (NGOs).

To progress priorities identified at the 2017 stakeholder workshop, the FRDC commissioned a workshop on Aquatic Animal Welfare, held in Adelaide in September 2018. The invited participants were the delegates of the various seafood industry bodies, other seafood industry representatives and members of the previous AAWWG. This report outlines the findings from that workshop.

During the workshop an update on current domestic and international aquatic animal welfare issues were outlined by independent experts who had also been members of the AAWWG. Delegates then undertook a threat assessment process to identify industry's current key areas of concern.

As part of the workshop process, a brainstorming session was carried out with delegates split into working groups based on aquatic animal interaction points within industry sectors, as outlined below;

- Aquaculture and Aquarium sectors – whole of life welfare
- Catching sector – transported live including the post-harvest sector
- Catching and Recreational sectors – transported dead

In this session they identified the key priorities for their sub-group, what they perceive is currently working well and where there is still room for improvement.

Throughout the workshop the working groups consistently identified a need to:

- i. Communicate the importance of addressing/maintaining animal welfare to industry;
- ii. Undertake greater/more effective extension of the available literature to industry (e.g. AAWWG documents); and
- iii. Communicate the positive efforts to address/maintain animal welfare that are currently being made by industry.

The workshop participants firmly held the view that effective communications be practically based and underpinned by credible, 'peer reviewed' information from industry and scientists. The workshop attendees suggested this would be best achieved by the establishment of a 'process' similar to the previous AAWWG, that could ensure momentum is maintained on this topic, the appropriate Research, Development and Extension (RD&E) is carried out in a structured way and industry assessments are undertaken, guidelines developed/revised as required and then appropriately extended to industry to achieve maximum industry adoption.

This process should ensure suitably credible Aquatic Animal Welfare information, including what already exists from the previous AAWWG process, can be delivered through an effective, well-funded process for appropriate circulation and dissemination of relevant information to the relevant target audience, whether that be internally within the industry sectors or externally to the community and animal welfare E-NGOs.

## Recommendations

These recommendations are not specific to FRDC but represent the views of the workshop participants regarding what current inputs are needed from all stakeholders on the topic of Aquatic Animal Welfare generally. The recommendations from the workshop are detailed below:

## Governance

- *Governance - Strategic Plan for Aquatic Animal Welfare*

There was support for the establishment of a multi-sector 'aquatic animal welfare committee' (including a dedicated secretariat), similar to the initial Aquatic Animal Welfare Working Group, which could ensure momentum on this topic, the appropriate RD&E is carried out in a structured way and industry assessments are undertaken, guidelines developed / reviewed and appropriate engagement with industry sectors undertaken to progress the development and implementation of sector specific Aquatic Animal Welfare processes.

One suggestion is that this should follow a similar process within FRDC as currently being applied for workplace safety and training.

## Communications

- *Communication Activities*

It was felt that there is a need for significant investment in the communication processes (both internally within industry and externally to other stakeholders, such as E-NGOs). As a consensus, it was identified that the industry does not do this well, if at all. The delegates identified that the industry sectors need a clear, concise communication strategy with agreed standardised policies, procedures, tools and skill sets.

It was emphasised that timing of external communication needs to ensure that there can be a practical demonstration within industry of any public comments on behalf of industry, along with the who, what and where to be communicated.

This includes;

- Expert communication / PR support
- Seafood communication strategy
- Who and how to engage stakeholders at the right time: internally within and across the sectors/industry, externally with customers and full supply chain, NGO's, activities, the public, government and associations
- Implementation of a communication plan, including strong use of social media that incorporates positive aquatic animal welfare messaging
- Telling the good news stories, de-mystifying what the industry sectors do
- Promoting aquatic animal welfare. Through other worked examples; e.g. stating improvements in product quality rather than aquatic animal welfare.
- Proactive communications even when an incident occurs (this links with the Seafood Industry Response Plan).
- Guidance on when to engage stakeholders, if at all and examples.
- How to respond to inaccurate portrayal of the industry from sensationalism, negative or emotive communication, especially in the online environment
- Standardised policies, procedures, training templates and tools for all of the above points.

There was support for an updated Seafood Industry Response Plan (SIRP) that includes; agreed principles, key contacts, response processes (the who, what, where, when) and industry communication protocols with, where possible, pre-produced ‘off the shelf’ incident topic factsheets available for use as and when required. Whilst the Seafood Incident Response Plan would not exclusively relate to animal welfare incident (i.e. it could also relate to food safety or occupation health and safety incidents), it could also be applied during an animal welfare incident. For example, it was noted by the Australian prawn Farmers Association that such as response plan would have been of use when the process of prawn eye stalk ablation was queried by the public earlier in 2017. The need for a Seafood Industry Response Plan was identified as a priority in the FRDC 2018 Lead, Collaborate, Partner Stakeholder Workshop. This is an issue that FRDC will progress.

## **Research, Development and Extension Activities**

- *Stocktake of the Industry Sectors Current Aquatic Animal Welfare Practices*

There was support for a new stocktake of current industry processes and legislation that either directly or incidentally address Aquatic Animal Welfare challenges. A previous review was conducted in 2006 by the AAWWG, which can act as a template process to follow.

Note: There was a view that many of the actions that the industry have implemented over the last 10 years for other purposes, such as to achieve quality improvements or bycatch reduction mechanisms, also provide improved aquatic animal welfare outcomes. This needs to be appropriately documented and promoted.

- *Filling Aquatic Animal Welfare Data Gaps*

In support for the proposed stocktake of current processes, the need to also identify gaps in the research data and completed projects was identified. Where knowledge gaps have been identified, research priorities that would enable remaining knowledge gaps to be closed could be addressed. For example, workshop participants identified the following knowledge gaps, that are not addressed in AAWWG material and felt that there was a need to better understand how the following industry processes (often adopted for other purposes) address aquatic animal welfare benefits;

- Humane seafood dispatch techniques such as Iki Jime, percussion stunning
- Effectiveness of ice slurry baths to minimise stress from capture to slaughter
- Impacts of gear types / improvements to gear types
- On-board holding tanks and handling techniques
- Bait selection and technologies
- Husbandry practices
- Traceability (for through chain live trade species)
- Exporting techniques (for live trade species)

- *Best Practice Codes / Guides for Industry Sectors*

It is anticipated that industry sectors will need to review their sector’s current Codes of Practice / Guidelines and update these once revised data becomes available from recommendations above.

Following the review process there will likely be a need to roll out of education, training, implementation, monitoring and continuous improvement processes to ensure that the appropriate aquatic animal welfare best practice processes are appropriately adopted across the industry sectors.

- *Change Management*

There is a recommendation that flexible training delivery models be explored, that are audience suitable (for example online training modules and, or ‘on the wharf’ face to face training delivery) if these methods will lead to improved uptake rates of best practice processes. It was also felt there was a gap for focused change management training and how to implement it within their business / association, as it will support all of the above recommendations to grow the industry.

## **Conclusions**

The recommendations in this report from the workshop now become a discussion point for FRDC and the peak industry bodies with regard to how to progress best practice animal welfare across the seafood industry. Work is required to determine who is best placed to invest in the various activities identified in the above recommendations, as well as put in place the required processes and activities that have been recommended from the workshop.

What was clear from the industry delegates at the workshop was that they did not think that doing nothing was an option. The peak bodies and FRDC (and other interested parties such as DAWR) need to now determine how best to prioritise and progress the necessary actions.

## **Keywords**

**Aquatic Animal Welfare, Aquatic Animal Welfare Working Group,**



# Introduction

The federal government (through DAWR) funded the work of the Aquatic Animal Welfare Working Group (AAWWG) from 2005 to 2013, as part of the implementation of the Australian Animal Welfare Strategy (AAWS). Through this period, the AAWWG was able to prioritise, commission and manage a number of projects that established best practices to achieve aquatic animal welfare principle/goals across industry sectors. The AAWWG constituted representatives from the commercial wild capture fishing, recreational fishing, aquaculture and ornamental/aquarium sectors, and from animal welfare non-government organisations.

The work achieved by the AAWWG can be found on the [Aquatic Animal Welfare Research webpage](#), and includes an overview of the program in the FRDC report 2013-049 “Aquatic Animal Welfare in Perspective” (2017), which sets out some important matters:

- *The maturity of the AAWWG to set aside debate on ‘do fish feel pain’ and concentrate on practical outcomes to ‘minimise stress from capture to slaughter’ allowed this sector and animal welfare advocates to proceed relatively smoothly along the path of improving fish welfare in the various sectors.*
- *Fishing stakeholders have indicated they are prepared to consider adjustments to their practices, where they are involved in the adjustment process and provided there is the opportunity to demonstrate the practical implications to their business as well as the animal welfare outcomes of any suggested adjustments.*
- *It is clear that there is a very close relationship between minimising stress in fish and the quality outcomes of the final product. The commercial fishing and aquaculture industries have applied this approach for many, many years and their existing practices, although not labelled specifically as for ‘animal welfare’ results in relatively high fish welfare results.*
- *The recreational fishing sector is rapidly improving its understanding of the relationship between fish welfare and quality of fish to eat.*
- *The ornamental sector has initiated many welfare improvements, but humane dispatch of fish remains a problem due to legislation restrictions on some of the most effective dispatch methods (eg use of clove oil as an anaesthetic).*
- *The process of the AAWWG since 2005 has demonstrated that operational processes (e.g. capture of large volume of small fish) require slaughter methods that can minimise stress across the whole catch as quickly as possible (e.g. use of ice slurry) rather than on an animal by animal basis which is more effectively achieved with smaller volumes of larger fish (e.g. stunning or brain spiking).*

Based on the work commissioned by AAWWG, the aquatic sectors have access to a suite of best practice documentation on handling, capture and dispatching aquatic animals within agreed upon animal welfare principles. These documents, available through the FRDC [Aquatic Animal Welfare Research webpage](#), provide a valuable series of practical outcomes and materials for circulation, evaluation, amendment (as necessary) and use within the various aquatic sectors.

At the 2017 FRDC Lead, Collaborate, Partner Stakeholder Workshop the attendees acknowledged the need to assess how the work done through AAWWG has been adopted by industry and what actions are required to enhance adoption of animal welfare principles and guidelines across sectors. The minutes of the stakeholder workshop acknowledge that; Work on developing tools for industry use is already done and that the priority now is effort to maximise industry adoption/uptake. This may include an assessment of welfare outcomes from industry adoption of tools, evaluation of suitability or promotion of welfare practices where this aligns with best practice (i.e. RSPCA – demonstration). This will in turn derive consistent defensible messages that can substantiate the development of an animal welfare ethos, which in the long term will ultimately require industry responsibility.

This workshop report provides advice and guidance to FRDC, peak industry bodies and other stakeholder groups (e.g. e-NGOs), based on the views of the attending delegates, it proposes a clear plan of what is now required to enhance aquatic animal welfare in the industry.

# Objectives

1. To support the implementation and adoption of the welfare improvements identified / developed in the earlier AAWS program (2005 - 2013) and identify any gaps that require future RD&E input.
2. Seek funding opportunities to carry out the work to close the identified gaps.
3. An understanding of the current levels of knowledge and adoption is first determined with the peak industry councils and broader industry
4. The project produces a clear plan that outlines what is required for welfare best practice to be communicated to the Australian seafood industry (both in terms of communication actions and research priorities) and how this may enhance animal welfare culture for the industry overall.

## Method

An Aquatic Animal Welfare workshop was held in Adelaide in September 2018. The invited participants were representatives of various peak industry bodies across the aquatic sectors (refer to Appendix 1 for the delegates list). The workshop was chaired by Brett McCallum (former Chair of the AAWWG), with project management and secretariat support provided by Mark Boulter and Meaghan Dodd from Safe Sustainable Seafood. The project was fortunate that the members of the AAWWG were able to participate and provide valuable insights. Members included:

- Brett McCallum – Chair
- Claire Webber – Wild catch / Aquaculture
- Leyland Campbell – Recreational sector
- Dr Josiah Pit – Ornamental fish sector
- John Harrison – Recreational / Wild catch sector
- Lowri Pryce – OceanWatch
- Dr Paul Hardy-Smith – Independent fish health expert
- Dr Ben Diggles – Independent fish health expert

The workshop was scheduled across the afternoon of one day and the morning of the next day to fit in with delegates travel needs. The agenda for the workshop is shown in Appendix 2.

To initiate the workshop there were two presentations from the independent members of the past AAWWG to outline past activities and outputs and also to discuss aquatic and non-aquatic animal welfare issues currently arising globally and the potential implications for Australia. Since the AAWWG concluded both Dr Paul Hardy-Smith and Dr Ben Diggles have been continuing to work in this field on an independent basis.

Industry representatives outlined their sector's status on aquatic animal welfare issues through a round table process. An analysis session identified and discussed key external/internal threats and opportunities.

On day two, the participants worked to 'brainstorm' the future needs regarding AAW from their specific perspectives. The participants were split into the following working groups;

- Aquaculture and Aquarium sectors - whole of life welfare
- Catching sector - transported live including the post-harvest phases
- Catching sector - transported dead

After a feedback session, participants considered the common themes that came out from the three working groups followed by a voting process to establish the overall key priorities.

The workshop chair then wrapped up the workshop.

# Results, Discussion and Conclusions

## Pre-Workshop Survey

Prior to the workshop an introductory survey to assess awareness levels regarding AAW was sent to the delegates, including those potential delegates who were unable to attend the workshop. There were only seven respondents. These represented three members of the previous AAWWG, two industry delegates who could not attend the workshop and two delegates who did attend the workshop. The findings of this pre-workshop process are listed in Appendix 3.

## Issues identified from the initial industry round table process

It was clear that there were many different issues that needed to be unpacked. There was a large disparity between the different sectors with respect to their level of understanding on whether they had developed animal welfare best practice guidance for their sector and how well this animal welfare has been adopted. There was also uncertainty amongst sectors as to level of application of the AAWWG's 'overarching principles' and the take up of the available AAW guidelines and materials. The more mature sectors appeared to have progressed further both in developing and communicating best practice documentation; however, some attendees had little knowledge of the range of materials that the AAWWG had generated.

What was also apparent was that over the last 10 years many innovations have been implemented, primarily to achieve supply chain improvement functions, such as better survivability of live product and quality improvement of product for market. Discussion highlighted that these improvements had likely achieved improved aquatic animal welfare benefits albeit this outcome was not explicit and have not necessarily been captured, documented or acknowledged by the seafood industry or external parties (e.g. E-NGOs).

When providing a sector-level overview, industry representatives highlighted the RD&E needs to develop best practices guides, as well as the need for improved extension of both existing guides and 'good news stories' already occurring. It was acknowledged the need for improved communication of the direct and indirect benefits of the adoption of best practices to achieve animal welfare outcomes in an effort to underpin an industry-level cultural commitment to animal welfare. As previously stated, different sectors were at different levels of progress in their adoption and communication of animal welfare best practice. The full list of issues raised in this early industry feedback session can be found in Appendix 4.

## Key points raised in the threat / opportunity analysis session

Following on from the roundtable discussions, delegates were asked to drill down into the key threats and opportunities that could emerge from progressing the issues identified. Delegates agreed that negative perceptions of industry practices from individuals who are ill-informed, either through misinformation, or a lack of availability of information on industry practices were one of the biggest threats to contend with and identified several important requirements to assist minimise this threat:

- Lack of a clear communication and education plan for the sectors;
- Lack of clear communication and education plan for the general community; and
- Lack of emergency response plans / processes to manage incidents impacting industry (e.g. prawn ablation incident, live transport).

Further threats that were identified include, where animal welfare best practice may not align with cultural expectations, either through long-held fishing practices, or consumer cultural expectations. Conversely, there were opportunities acknowledged in developing and promoting best practice that is embedded into fishing processes, and able to be prompted to the community. The potential for communications, could be seen as both a threat and an opportunity. The full range of issues raised in this session is outlined in Appendix 4.

## **Brainstorm of the future needs regarding AAW from the sectors perspectives**

In this session the delegates were separated into three related sub-group:

- Aquaculture / Aquaria sectors (whole of lifecycle animal welfare management);
- Wild catch sector – traded live (catching and post-harvest animal welfare management); and
- Wild catch sector – traded dead (harvest activity related animal welfare management).

In the three sub-groups the delegates identified the key priorities for their sub-group and what they perceive is working well currently and where there is still room for improvement. See tables below.

	<i>Subgroup 1 – aquaculture / aquaria sectors</i>	<i>Subgroup 2 – wild catch sector - traded live</i>	<i>Subgroup 3 – wild catch sector - traded dead</i>
<b><i>PRIORITIES IDENTIFIED</i></b>	<ul style="list-style-type: none"> <li>• Sector specific welfare assessments required including developing strategies</li> <li>• Transparency in fishing practices (Demystify what we do to the public)</li> <li>• Resources to support industry best practice and continual improvement based on science.</li> </ul>		<ul style="list-style-type: none"> <li>• A need to address live bait usage</li> <li>• Investigate best humane methods for harvesting / catching</li> <li>• Engagement with grass roots over humane dispatch/killing methods</li> <li>• Minimise stress on all aquatic animals involved</li> <li>• Narrative Gap with the public</li> <li>• Incident response plan</li> <li>• Strategic plan</li> </ul>
<b><i>WHAT IS PERCIEVED AS CURRENTLY WORKING?</i></b>	<ul style="list-style-type: none"> <li>• The reputation of the Australian Seafood as delicious and amazing produce that is healthy, sustainable and safe</li> <li>• Regional employment</li> <li>• Improvement to best practice</li> <li>• Adaptive management based on a willingness to improve practices as new knowledge becomes available</li> <li>• Ensuring quality of life for animals in captivity</li> </ul>	<ul style="list-style-type: none"> <li>• Selective gear / the ability to modify to increase selectivity and reduce by-catch</li> <li>• On boat techniques to humanely handle catch (and preserve quality) – this includes both handling and holding techniques</li> <li>• Traceability products (Help product quality and reduce mortality)</li> <li>• Transport and distribution methods</li> </ul>	
<b><i>WHAT IS PERCIEVED AS NOT CURRENTLY WORKING?</i></b>	<ul style="list-style-type: none"> <li>• Inaccurate/sensationalist portrayal in media potentially driven by a lack of communication both within sector, up / down the supply chain and to the public</li> <li>• Lack of welfare strategy leading to a disjointed approach within industry</li> <li>• Lack of sharing of science welfare approaches and research</li> <li>• Industry is reactive not proactive</li> <li>• Consumers understanding of the industry</li> </ul>	<ul style="list-style-type: none"> <li>• Traceability of the custody gap (industry cannot control handling of animal further down the supply chain (i.e. export))</li> <li>• A lack of review and revamp of existing industry guideline materials and their use</li> <li>• Unregistered products (potential for the off label use of clove oil) used prior to packing – APVMA issue</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of a Strategic Plan or co-ordinated governance for dealing with AAW across all sectors</li> <li>• Stocktake (including risk analysis, industry principles)</li> <li>• Narrative to community (This is what we have done, This is where we need to improve , This is what we need to research, this is what we are currently working on and timelines)</li> </ul>

<p><b>RESOURCE GAPS / SUPPORT REQUIRED</b></p>	<ul style="list-style-type: none"> <li>• Communication (including templates, expertise, guides to managing welfare of animals)</li> <li>• Consumer research (understanding engagement requirements)</li> <li>• Scientific data to underpin sector specific best practice and strategy</li> <li>• Funding</li> <li>• Help to write sector specific welfare strategies</li> </ul>	<ul style="list-style-type: none"> <li>• There remain information gaps in humane dispatch methods and restaurant display tanks best practice</li> <li>• Effective communications strategy to demystify the industry and eliminate information vacuums (transparency)</li> </ul>	
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The three sub-groups did some detailed brainstorming to outline what is required for their specific sectors with policy issues, technical research issues and communications issues being raised by all three groups in different, yet similar ways. This session led to the identification of the common themes that came from across the three groups:

## Key common themes identified from the workgroups

- A need for a Communication Strategy including;
  - Protocols / procedures / strategy
  - How to engage
  - Export information (overseas handling of live traded product)
  - What we do including good news stories
  - Social media engagement
  - Internal / external / tools to use
- Overarching industry AAW strategy needed
- Sharing information protocols / methods between the industry groups
- Scientific data regarding good practice methodologies such as;
  - Ice slurry baths
  - Rapid humane dispatch steps
  - Exporting best practice processes
- An incident response plan
- A current stocktake of where industry and each sector is at now
- A change management process will be required
- Best Practice Industry / Sector guidelines are needed and need to be incorporated into industry training processes

## Prioritisation process

Using the identified key common themes from the sub-groups the workshop as a whole conducted a simple prioritisation process, whereby each participant was given three votes for key topics they felt resources should be targeted. The prioritisation results are shown in the table below:

Key categories identified through the workshop	Votes	Percentage of votes
<b>Initiate a new Aquatic Animal Welfare steering group, with a dedicated human resource (secretariat) to drive the process</b>	7	18%
<b>Identify research gaps / undertake a stocktake of current methods developed / adopted</b>	4	11%
<b>Gather scientific data on information gaps</b>	4	11%
<b>Develop an Incident Response Plan</b>	5	13%
<b>Develop an effective communications strategy (to demystify the industry)</b>	18	47%
<b>TOTAL</b>	38	100%

This voting roughly translates;

- 20% support for investment in a new overarching process / mechanism to manage aquatic animal welfare process across four aquatic sectors including monitoring adoption
- 20% support for review and assessment into what is currently working / what is missing (gaps).
- 60% support for investment in better communications processes – both internal and external

Delegates felt that the key areas are: suitable investment in communication to the stakeholders in each sector of the importance of adopting and incorporating animal welfare principles and demonstrating adoption of these principles in practice to the wider community. Through the discussion session there was a view that for this communications process to be put into place, and be effective, it will need to be ‘fed’ credible information from industry and scientists that has been suitably ‘peer reviewed’.

This was considered best achieved by reinvigorating a ‘process’ similar to the old AAWWG that could maintain and co-ordinate the momentum on this topic, ensure appropriate RD&E is initiated and prioritised and industry stocktakes get undertaken and reviewed, such that suitable credible AAW information can be delivered through a strong well-funded communication process for appropriate circulation and dissemination of relevant information to the relevant target audience, whether that be internally within industry, externally to the public or E-NGOs.

These last two paragraphs succinctly summarise the key aspects that came out of this event and are picked up strongly in the recommendations that came from the workshop. Those recommendations are listed below;



# Recommendations

The following summarises the delegate feedback from the Workshop, in respect to a list of recommendations that represent either identified gaps or areas where increased support is required to achieve appropriate aquatic animal welfare outcomes. These recommendations are not specific to FRDC but represent the views of the workshop participants regarding what current inputs are needed from all parties on the topic of AAW generally. The recommendations from the workshop are detailed below:

## Governance

- *Governance - Strategic Plan for Aquatic Animal Welfare*

There was support for the establishment of a multi-sector 'aquatic animal welfare committee' (including a dedicated secretariat), similar to the initial Aquatic Animal Welfare Working Group (AAWWG), that could ensure momentum on this topic, the appropriate RD&E is carried out in a structured way and industry assessments are undertaken, guidelines developed / reviewed and appropriate engagement with industry sectors undertaken to progress the development and implementation of sector specific Aquatic Animal Welfare processes.

One suggestion is that this should follow a similar process within FRDC as currently being applied for workplace safety and training.

## Communications

- *Communication Activities*

It was felt that there is a need for significant investment in the communication processes (both internally within industry and externally to other stakeholders, such as E-NGO's). As a consensus, it was identified that the industry does not do this well, if at all. The delegates identified that the industry sectors need a clear, concise communication strategy with agreed standardised policies, procedures, tools and skill sets.

It was emphasised that timing of external communication needs to ensure that there can be a practical demonstration within industry of any public comments on behalf of industry, along with the who, what and where to be communicated.

This includes;

- Expert communication / PR support
- Seafood communication strategy
- Who and how to engage stakeholders at the right time: internally within and across the sectors/industry, externally with customers and full supply chain, NGO's, activities, the public, government and associations
- Implementation of a communication plan, including strong use of social media that incorporates positive aquatic animal welfare messaging
- Telling the good news stories, de-mystifying what the industry sectors do
- Promoting aquatic animal welfare. Through other worked examples; e.g. stating improvements in product quality rather than aquatic animal welfare.
- Proactive communications even when an incident occurs (this links with the Seafood Industry Response Plan).
- Guidance on when to engage stakeholders, if at all and examples.
- How to respond to inaccurate portrayal of the industry from sensationalism, negative or emotive communication, especially in the online environment
- Standardised policies, procedures, training templates and tools for all of the above points.

There was support for an updated Seafood Industry Response Plan (SIRP) that includes; agreed principles, key contacts, response processes (the who, what, where, when) and industry communication protocols with, where possible, pre-produced ‘off the shelf’ incident topic factsheets available for use as and when required. Whilst the Seafood Incident Response Plan would not exclusively relate to animal welfare incidents, and could also relate to food safety of occupation health and safety incidents, it could also be applied during an animal welfare incident (e.g. It was noted by the Australian prawn Farmers Association that such as response plan would have been of use when the process of prawn eye stalk ablation was queried by the public earlier in 2017). It is noted that the need for a Seafood Industry Response Plan was identified as a priority in the FRDC 2018 Lead, Collaborate, Partner Stakeholder Workshop. This is an issue that FRDC will progress.

### **Research, Development and Extension Activities**

- *Stocktake of the Industry Sectors Current Aquatic Animal Welfare Practices*

There was support for a new stocktake of current industry processes and legislation that either directly or incidentally address Aquatic Animal Welfare challenges. A previous review was conducted in 2006 by the AAWWG, which can act as a template process to follow.

(Note: There was a view that many of the actions that the industry have implemented over the last 10 years for other purposes, such as to achieve quality improvements or bycatch reduction mechanisms are also providing improved aquatic animal welfare outcomes. This needs to be appropriately documented and promoted).

- *Filling Aquatic Animal Welfare Data Gaps*

In support for the proposed stocktake of current processes, the need to also identify gaps in the research data and completed projects was identified. Where knowledge gaps have been identified, research priorities that would enable remaining knowledge gaps to be closed could be addressed. For example, workshop participants identified the following knowledge gaps, that are not addressed in AAWWG material and felt that there was a need to better understand how the following industry processes (often adopted for other purposes) address aquatic animal welfare benefits;

- Humane seafood dispatch techniques such as Iki Jime, percussion stunning
- Effectiveness of ice slurry baths to minimise stress from capture to slaughter
- Impacts of gear types / improvements to gear types
- On-board holding tanks and handling techniques
- Bait selection and technologies
- Husbandry practices
- Traceability (for through chain live trade species)
- Exporting techniques (for live trade species)

- *Best Practice Codes / Guides for Industry Sectors*

It is anticipated that industry sectors will need to review their sector’s current Codes of Practice / Guidelines and update these once revised data becomes available from recommendations above.

Following the review process there will likely be a need to roll out of education, training, implementation, monitoring and continuous improvement processes to ensure that the appropriate aquatic animal welfare best practice processes are appropriately adopted across the industry sectors.

- *Change Management*

There is a recommendation that flexible training delivery models be explored, that are audience suitable (for example both online training modules, or ‘on the wharf’ face to face training delivery) if these methods will lead to improved uptake rates of best practice processes. It was also felt there was a gap for focused change

management training and how to implement it within their business / association, as it will support all of the above recommendations to grow the industry.

## **Further development**

What was clear from the industry delegates at the workshop was that they did not think that doing nothing was an option. The peak bodies and FRDC (and other interested parties such as DAWR) need to now determine how best to prioritise and progress the necessary actions. The recommendations in this report from this workshop form the basis for that prioritisation process, with this report an integral document to facilitate broader discussions with all relevant stakeholder groups.

# References

*Aquatic Animal Welfare R&D folder*

<http://frdc.com.au/en/Industry-and-Environment/Aquatic-Animal-Welfare/AAW---Research>

*Final report from AAWWG*

<http://frdc.com.au/-/media/Fish-FRDC/Environment/Animal-Health-and-Biosecurity/Aquatic-Animal-Welfare-in-Perspective-Final-Report.ashx?la=en>

*Animal Welfare Publications and research projects include:*

- [Aquatic Animal Welfare in Perspective - A summary of the Aquatic Animal Welfare Working Group process and findings](#)
- [Agreed Overarching Principles 2009](#)
- [Aquatic Animal Welfare Working Group \(AAWWG\) Stocktake Report - September 2006](#)
- [CoP for the Capture Fisheries Sector - Trawl - December 2012](#)
- [Codes of Practice for the Capture Fisheries Sector - Purse Seine - December 2012](#)
- [CoP for the Capture Fisheries Sector - Beach Seine - December 2012](#)
- [CoP for the Capture Fisheries Sector - Rod and Handline - December 2012](#)
- [CoP for the Capture Fisheries Sector - Mesh Netting - December 2012](#)
- [CoP for the Capture Fisheries Sector - Pot and Trap - December 2012](#)
- [Benchmarking harvest methodologies in the Australian barramundi aquaculture industry - impacts on stress, product quality and fish welfare](#)
- [A National Code of Practice \(COP\) for Recreational and Sport Fishing - May 2014](#)
- [Iki-Jime Project \(final Report\) AW1011-08t](#)
- [Iki-Jime Poster - Phone App](#)
- [Iki-Jime Offshore leaflet 2013](#)
- [Iki-Jime Freshwater leaflet 2013](#)
- [Iki-Jime Estuary leaflet 2013](#)
- [Recreational Fishing - Humane Killing Brochure](#)
- [FRDC 2012-507: AAWS: The Development of Specific Operator \(Boat\) level Fish Welfare Guidelines in the Commercial Capture Fishing Sector - July 2015](#)
- [FRDC 2012-506: AAWS: Development of welfare guidelines for restaurants and retail outlets holding live fish and shellfish in aquaria - August 2015](#)
- [Restaurant Animal Welfare Brochure - Chinese](#)

- [Restaurant Animal Welfare Brochure - Vietnamese](#)
- [Restaurant Animal Welfare brochure - English](#)
- [FRDC 2012-508: AAWS: Practical implementation of Welfare Overarching Principles within the recreational fishing sector - June 2015](#)
- [Humane Euthanasia Techniques for Ornamental Fish - October 2013](#)
- [A review of the use of ice slurry and refrigerated seawater for the killing and holding of finfish](#)
- [Australian Animal Welfare Strategy \(AAWS\) Ice Slurry Dispatch Brochure](#)
- [National Aquaculture Council Aquatic Animal Welfare Guidelines - Feb 2005](#)
- [Pet Industry Association Animal Welfare Code of Practice \(COP\) 2008](#)
- [AQUAPLAN 2014-2019 – Australia's National Strategic Plan for Aquatic Animal Health](#)
- [Australia's National Strategic Plan for Aquatic Animal Health 2005-10](#)

*Minutes of 2017 FRDC stakeholder workshop*

<http://frdc.com.au/en/Partners/Stakeholder-workshops/2017-Stakeholder-Workshop>

# Appendices

## Appendix 1

### Delegates at the AAW workshop

<b>Ex – Aquatic Animal Welfare Committee</b>	<b>Representative Body</b>
Brett McCallum	Workshop Chair
Claire Webber	Southern Bluefin Tuna Industry Association
Lowri Pryce	Oceanwatch
Josiah Pit	Aquarium Fish Industry – Aquarium Industries
Leyland Campbell	Recreational Fishing (RecfishWest)
John Harrison	West Australian Fishing Industry Council (WAFIC)
Paul Hardy-Smith	Independent Aquatic Vet Panaquatic Health Solutions Pty Ltd
Ben Diggles	Independent Aquatic Vet Digsfish
<b>Industry Representatives</b>	
Aaron Irving	National Aquaculture Council
Eric Perez	Queensland Seafood Industry Association
Tricia Beatty	Professional Fishermen’s Association
Clare Robinson	Western Rock Lobster Council
Tom Cosentino	Southern Rock Lobster and Wildcatch Fisheries South Australia
Rachel King	Australian Council of Prawn Fishers
Kim Hooper	Australian Prawn Farmers Association
Erik Poole	Sydney Fish Market
<b>Secretariat</b>	
Mark Boulter	For FRDC NP1
Meaghan Dodd	For FRDC NP1
Chris Izzo	FRDC
Nicole Stubing	FRDC
<b>Observers</b>	
Tara Needham	Independent Aquatic Vet Panaquatic Health Solutions Pty Ltd

## Apologies

<b>Industry Representatives</b>	
Jane Lovell	Seafood Industry Australia
Michael Kitchener	Master Fish Merchants Association (Post-harvest sector)
Simon Boag	South East Trawl Fishing Industry Association
Adam Main	Tasmanian Salmon Aquaculture
Johnathon Davey	Seafood Industry Victoria
Renee Vajtauer	Commonwealth Fisheries Association
Katherine Winchester	Northern Territory Seafood Council
Julian Harrington	Tasmania Seafood Industry Council
Dennis Holder	Wildcatch Fisheries South Australia
Matt Taylor	Western Rock Lobster Council
Brett Cleary	Recreational fishing sector
Owen Li	Recreational fishing sector
Dean Lisson	Abalone Council of Australia
Jo-Anne Ruscoe	Australian Barramundi Farmers Association
David Ellis	Tuna Australia

## Appendix 2

### AGENDA - FRDC - Aquatic Animal Welfare Workshop

Location: Sage Hotel Adelaide, 208 South Terrace, Adelaide, South Australia.

Date: 10<sup>th</sup> and 11<sup>th</sup> September 2018

10 <sup>th</sup> September			
1200	Optional Lunch		
1300	Introduction to the Aquatic Animal Welfare Workshop	Brett McCallum – Ex-chair of the Aquatic Animal Welfare Working Group (AAWWG) and FRDC	Brett McCallum
1310	Opening Speaker – Dr Ben Diggles	An introduction to the current landscape around aquatic animal welfare	Dr Ben Diggles
1400	An outline of the previous AAWWG activities and its published outputs	Former AAWWG committee members to outline the process undertaken to develop the industry ‘how to guides’	Led by - Paul Hardy-Smith  Supported by;  Claire Webber  Lowri Pryce  Josiah Pit  Leyland Campbell  John Harrison
1430 - 1615	Perspectives from the Peak Industry bodies - what is working, what isn't?	Peak body reps (5 mins each)	Aaron Irving  Eric Perez  Tricia Beatty  Clare Robinson  Tom Cosentino  Rachel King  Kim Hooper  Erik Poole
1500	Afternoon tea	Grab and go.	
1615	Group discussion of the key AAW threats	To consider what are the upcoming issues from NGO's, etc	All
1700	Finish day 1 meeting		

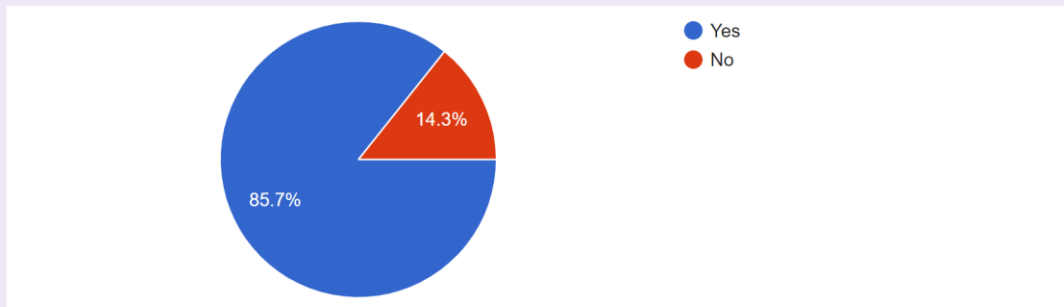


11 <sup>th</sup> September			
0900	Recap of day 1 and outline of day 2 agenda	Introduction to day 2	Brett McCallum
0910	Sector specific workshop breakout sessions	Small group discussion sessions - what is working ok, what needs to be improved or added too	All
	Suggested Groups		
	Catching sector - transported dead	Catching sector - transported live inc. post-harvest sector	Aquaculture and Aquarium sectors - whole of life welfare
1000	Feedback from the group sessions	Each group to present their findings - 10 mins each group + 10 mins for Q&A	All
1100	Morning coffee		
1120	Discussion on the feedback from the group sessions	Common themes, differences, future R&D needs, extension needs.	All
1230	Final wrap up session	Where to from here?	Brett, FRDC
1300	Finish		

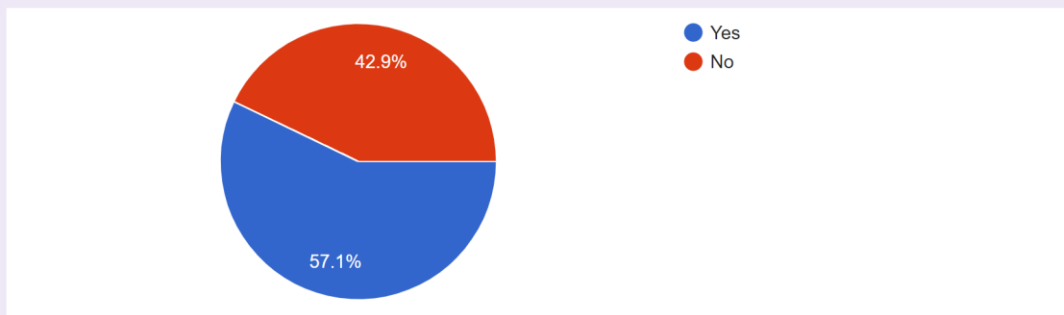
# Appendix 3

## Pre – Workshop Survey Results

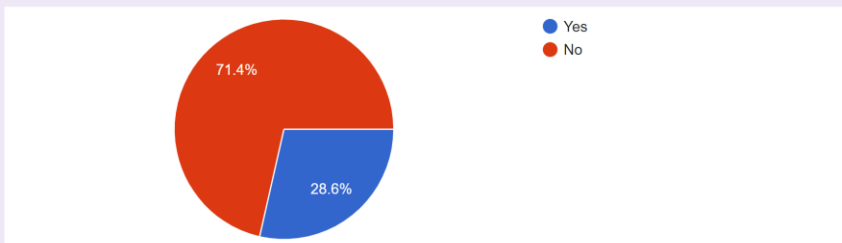
Are you (and / or your members) aware of the Aquatic Animal Health Working Group (AAHWG)? 7 responses



Are you (and your members) aware of the sector specific “how to guides” developed by this group a few years ago? 7 responses



Do you know whether your industry sector has introduced any specific Animal Welfare measures into their operating practices? 7 responses

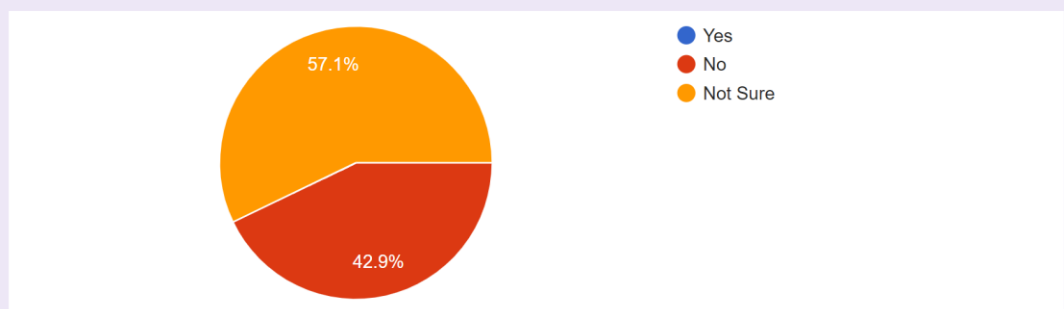


If Yes, can you please outline what these are? 3 responses

Some increase in awareness of need to handle fish gently when releasing them and dispatching fish humanely (ikijime) for those that are retained (in recreational fishing sector). However best practice techniques unlikely to be universally adopted due the large number and wide social/socio-economic range of participants. VBIFA EMS, to an extent, however nothing large scale across industry to implement a full animal welfare strategy.

Not very high on our radar being capture sector. ACPF has no measures in place and I'm unaware of any member fisheries with measures in place

Are these measures derived from the ‘how to guides’ developed from the Aquatic Animal Health Working Group? 7 responses



Do you know what percentage of your industry sector has implemented these animal welfare measure's?3 responses

Not sure, there have been improvements in certain demographics, but overall adoption rates are unknown.

NO

unsure

Do you (or your members) feel that these animal welfare measures that have been implemented are effective?3 responses

Ikijime is very effective, if implemented correctly.

Unsure

not sure on uptake

If your sector has not implemented the recommended animal welfare measures can you outline why that is the case?4 responses

Although the AAWS process developed the relevant educational tools, widespread uptake of techniques such as ikijime for the recreational fishing sector would

require massive publicity campaigns on TV, radio and social media as well as engagement by government via education during fishing licensing renewals etc.

unsure of uptake and implementation - not being discussed at industry meetings

Were not aware there were any

Our harvesting practices are in line with recommended animal welfare practices

If so, can you explain what you feel is inappropriate about these recommendations as applied to your industry sector. 2 responses

Just need to increase efforts for publicising and implementing the existing educational tools on the water....

think it is more a lack of awareness and a need for a more proactive approach to highlight the tools developed

Any other comments / Feedback.....1 response

Animal welfare is just a blip on our social licence radar. Its raised its head because of the eye ablation issue in farmed sector which may be attributed to us by an uninformed audience. Handling and processing live product on board is an issue that ma affect us and any other sector that has similar on board process. Our involvement in the workshop is a demonstration of 'being-seen-to-be-doing' and keeping up with emerging drivers on the issue.

## Appendix 4

### Workshop Notes

#### Notes - Issues identified from the initial industry round table process

- Perceptions vary sector to sector
- Linkages of welfare to other groups
- Legislation – where does aquatic animal welfare fit?
- Supply chain – everyone is a stakeholder
- Need to identify the ‘hot spots’ (biggest immediate risk areas)
- Need to identify the research gaps
- Stocktake of what is currently done (happening now within the industry)
- A process in place when an issue / incident arises
- Roadmap needed
- Funding and Priorities
- Improved product quality (goes hand in hand with AAW - for animal welfare messaging)
- Education
- Innovation
- Who to engage with and at what point?
- Best practice based on available science for the industry and sector
- Communication of good news stories
- Proactive strategic communications (protocol with templates) – how to standardized for the industry
- Sharing knowledge and information available. Centralisation of information.
- Communications to cover and distribute across all sectors not just the one involved
- Hot Spot testing eg; like mock recalls of food.
- Emotive communications / social media / videos/ websites
- Rec Fish – how to kill fish correctly (stop fish flopping around on the deck)
- Present the benefits of good aquatic animal welfare
- Recommendations must be based on science
- Highlighting the positives not always the negatives (people – businesses – price)
- Cultural changes through education

#### Notes - Key points raised in the threat / opportunity analysis session

- Industry needs to understand when, whether and who to engage with should an animal welfare incident take place
- Industry is having to deal with generational differences
- Gap in selling AAW friendly techniques to industry between those where product quality and welfare improvements jointly occur (win wins) vs AA welfare only benefits (such as ceasing the use of live bait, light tackle fishing)
- Crisis protocol is needed (Incident Response Plan)
  - Who
  - When
  - What
  - Where
  - Inc. media key messaging in various formats (online, journalist, social media etc.)
- Succession planning
- Utilization of Codes of Practices (COPs) – by grass roots industry. How to measure uptake?

- Buy – in from industry ‘roots base’. How to engage?
- Linkages to RSPCA / Animals Australia – How to successfully engage?
- Timings of when things should go public. Once industry has its act into gear?
- Science based communication.
  - Media ready material
- Best Practice ‘processes’ agreed and available to the public
- Where are the industry ‘Hot Spots’?
- Identify and address the low hanging fruit – methods to minimise stress
- Funding to progress engagement and follow-up with industry
- By-catch welfare
- Disease management
- Customer expectations including clashes with regulations and culture
- Legislation

## **Brainstorm of the future needs regarding AAW from the sectors perspectives**

### **Subgroup 1 – aquaculture / aquaria sectors**

#### ***PRIORITIES IDENTIFIED***

- Sector specific welfare assessments required
  - Learn from others
  - Internally identify issues
  - Develop animal welfare strategy
- De-mystify what we do to the public
  - Good for social licence
  - Portrayed in a positive context
  - Education of industry/sector practices
- Industry best practice and continual improvement
  - Science based
  - Technical developments adopted
  - Monitoring the market and implementing requirements
  - Earn public trust

#### ***WHAT IS PERCIEVED AS CURRENTLY WORKING?***

- Delicious and amazing produce that is healthy, sustainable and safe
- Regional employment
- Improvement to best practice
  - Adaptive management
- Taking care of the aquatic animals vs life in the wild

#### ***WHAT IS PERCIEVED AS NOT CURRENTLY WORKING?***

- Media
  - Inaccurate portrayal
  - Sensationalism
- Lack of communication
  - Within sector
  - To the public
  - Up / down the supply chain
- Lack of welfare strategy

- Disjointed approach within industry
- Lack of knowledge of what others are doing – internationally and domestically
- Lack of sharing of science welfare approaches and research
- Consumers are out of touch with production leaving the industry vulnerable to incorrect perceptions and unreasonable expectations
- Industry is reactive not proactive

### ***RESOURCE GAPS / SUPPORT REQUIRED***

- Communication
  - Templates
  - Expertise
  - Guides to managing welfare of animals
- Consumer research
  - Understanding engagement requirements
- Scientific data
- Funding
- Help to write sector specific welfare strategies

### **Subgroup 2 – wild catch sector - traded live**

#### ***WHAT IS PERCIEVED AS CURRENTLY WORKING?***

- Selective gear
  - Line caught / hand caught
  - Pot / trap
  - Gear can be modified to increase selectivity and reduce by-catch e.g.;
  - Ban opera house nets
  - Sleds (sea lion exclusion devices)
  - Escape hatches
  - Bait technology / selection
  - Circle hooks
  - New technology e.g. sonic pots
  - Lower soak times
- On boat techniques
  - Tie claws on lobsters / crabs
  - Holding tanks / live wells
    - With appropriate size and design
    - Monitor water quality
    - Clean / dry before use to eliminate disease transfer
  - Holding techniques
    - Avoid damage
  - Traceability products
    - Help product quality and reduce mortality
- Transport and distribution
  - Sedatives used during packing for certain species
  - Chilled water

#### ***WHAT IS PERCIEVED AS NOT CURRENTLY WORKING?***

- INFORMATION GAP'S - Humane dispatch methods
  - Iki jime

- Ice slurry (speed?)
- Electro-stunning?
- Hot water?
- Restaurant display tanks
  - Poor water quality
  - Overcrowding
  - Lack of cleanliness
  - Injured / diseased fish
  - Lack of humane dispatch/kill in public (cultural issues)
- INFORMATION GAP - Traceability (blockchain?) of the custody gap
  - Export with instructions to end users
  - Overseas inspection
- Treatment of live animals once overseas
  - Transport
  - Handling
  - Display
  - Humane dispatch/killing
- INFORMATION GAP – A review and revamp of existing industry guideline materials and their use
- Develop an effective communications strategy to demystify the industry and eliminate information vacuums (transparency)
- Unregistered products (potential for the off label use of clove oil) used prior to packing – APVMA issue

### **Subgroup 3 – wild catch sector - traded dead**

#### ***PRIORITIES IDENTIFIED***

- A need to address live bait usage
- Investigate best humane methods for harvesting / catching
- Engagement with grass roots over humane dispatch/killing methods
  - Time from catch to humane dispatch/killing
  - How to dispatch/kill correctly
  - Duration of process of dispatch/killing
- Minimize stress on all aquatic animals involved including;
  - Bait used
  - Target species
  - By-catch species
- Narrative Gap with the public
  - Visibility issues
  - Social media
  - Perception
- Incident response plan
  - Stocktake of existing methods
  - Agreed principles
  - Key contacts
  - Agreed response processes
- Strategic plan
  - Investigation of current status of animal welfare in industry
  - Toolkit – guides, templates
  - Engagement process
    - Codes
    - Engagement strategy
    - Training

## ***WHAT IS PERCIEVED AS NOT CURRENTLY WORKING?***

Lack of a Strategic Plan for dealing with AAW across all sectors

Proposed elements of a new Strategic Plan

- Governance
  - Under FRDC's NP1?
  - Overseen by a new Aquatic Animal Welfare steering group
  - With a dedicated human resource to drive the process
- Investigation / Stocktake
  - Risk analysis
  - Determine industry principles
    - Actions required
    - Implementation
    - Engagement
- Narrative to Community
  - This is what we have done
  - This is where we need to improve
  - This is what we need to research
  - This is what we are currently working on and timelines