Fishery Management Plan Goals:

1. Sustainable harvest of resources in the Sardine Fishery
2. Minimise adverse impact of fishing operations on the ecosystem
3. Optimal utilisation of Sardine Fishery resources within constraints of sustainability imperatives
4. Good governance of the Sardine Fishery

Risk Summary:

1. Threatened, Endangered & Protected species (TEPS) - PIRSA Risk Rating: EXTREME (Likelihood - Likely 6: Consequence - Major 4: Score 24)

Inappropriate use of TEPS related information including news of dolphin mortalities could lead to significant political, social and Industry reputation damage. This is a key reason for the Consequence of this risk being rated as MAJOR, despite the definition “likely to cause local extinctions, if continued in longer term” implying the bio-mass of dolphins could be placed at risk.

It is imperative that the Sardine fishery adheres to the TEPS Code of Conduct at all times and that all TEPS mortalities and interactions are reported 100% of the time.

Since 2012, industry have initiated and continue to utilise real time recording and monitoring of TEPS interactions, as reported by Skippers, and followed up by raising Skipper awareness of the matter via Port Meetings. These initiatives have had a positive impact on the interactions rated reported by Skippers. However, as evident through the Q4 2012 – 2013 interaction results, there still remains further opportunity to close the “gap” between interactions rates reported when Observers are on board as compared to when they’re not.

Whilst reduction in the gap will be a great outcome, and preventative measures as per the TEPS Code of Conduct will minimise TEPS interactions including mortalities, the nature of fishing operations with the Sardine fishery means TEPS interactions will always occur and therefore this risk will remain EXTREME.

Elements of TEPS include:

- Accidental entrapment leading to death of TEPS including dolphins
- Not all TEPS interactions being reported, leading to a gap between Observer coverage report rates compared to those when Observers aren’t present
- Non adherence to TEPS procedures leading to incidents that potentially could be avoided
- Poor performance in managing TEPS interactions leads to poor perception of fishery management or Industry

The Quota Management System (QMS) is the collection of elements, each including various measures that when adhered to, enable effective accountability of all fish taken and subsequently sold or transferred. Integrity is the term used to describe the effectiveness of the measures contained within the QMS. The more effective the measures, the better the integrity.

The lack of a consistent and auditable approach to catch weight determination undermines the integrity of the Sardine QMS.

The “measured bin” approach to catch weighing has yielded success in the past and is suited to a large scale fishery such as the Sardine Fishery. However, variables including bin drainage time, allowance for water loss (both in actual kilograms and also as a % of total bin + contents weight), the type of product (human consumption, pet food, fresh and frozen feed) have all contributed to variation in how catch weight is now determined. The varying catch weighing methodology used by each Fish Processor means no two Fish Processors will determine the same total weight of fish despite processing the same number of bins.

Whilst a 5% variance in catch weight could potentially lead to an overall variation of 1500 tons (based on a 30,000 ton quota), it is not acknowledged as having a significant bearing on the sardine biomass. In addition, the time taken to determine catch weight for end products (those that require freezing in particular) has seen submission times for completed CDR's blow out to be frequently well in excess of the require submission times.

In October 2012, PIRSA and SASIA Exec commenced a project that aimed to review the existing catch weight determination practices. The project will continue through 2013 / 2014 with the aim of identifying whether or not there are other more effective catch weight determination options. If so, it is anticipated these will form part of future management options for the Sardine fishery.

Inconsistency in catch weighing methodology will inevitably lead to discrepancy in “true” weight of catch. As such, this risk has a direct bearing on the risk Quota Evasion.

Elements impacting Quota Management System Integrity include:

- The legal requirement for licence holders to adhere to requirements including prior to departure and landing reporting, submitting accurate catch information via CDR's (including separation of fish caught in both traditional and non-traditional fishing areas) is pertinent for the accurate monitoring of the Quota Management System. Should discrepancy in any of the above requirements occur and incorrect information be received by PIRSA Fisheries, the integrity of the Quota Management System is placed at risk
- Not making a Prior Report
- Errors and / or omissions on CDR's
- Late submission of CDR’s
- Inaccurate reporting of specific fishing zones being fished
- Both under and over declaring actual weight through utilisation of estimated weight via the “measured bin” approach

As highlighted in the risk Quota Management System Integrity, the fishery remains exposed to both under and over declaration of the “true” weight of fish caught. Whilst acknowledging that each of the processes adopted by Fish Processors is mostly visible and known, it also provides opportunity to evade quota by deliberately under estimating the “true” weight of fish caught.

Tuna farms have moved further out to sea over the past few years. The volume of requests by Skippers to unload at sea within the required 2 hour time line has also increased slightly during this time, in part due to the “economics” related to the long distance travel in and out of port and the impact on operational efficiency of the feeding process. As operating cost pressures impact the tuna industry there is likelihood that the volume of at sea unloads will increase in future, which if so will ultimately lead to an overall net increase of unloads at sea occurring within the required 2 hour notice period.

Any reduction in notice period limits the ability of Compliance to attend the unload, in the process heightening the risk.

From the commencement of the 2014 fishing season, Industry have advised that there will be a significant increase (possibly by 50%) in fish being unloaded at the wharf, following which they’ll be immediately placed on board feed vessels and transported back out to the farms as fresh feed.

Elements of Quota Evasion can include:

- Under declaring certified weight
- The lack of a consistent approach to catch weighing exposes the fishery to risk of Quota Evasion, particularly when unloading at sea occurs and where there is potential for collusion between fishers and Fish Processors
- Including false or misleading information on CDR to under declare actual weight and exceeding quota entitlements by collusion.
- Failing to prior report, not completing a CDR at point of landing, errors and omissions on CDR’s or not completing a CDR at all
- Falsifying CDR by fisher or by Fish Processor
- Unreported unloads at sea
4. **Take of Non-Permitted By-Catch - PIRSA Risk Rating: LOW (Likely 6: Consequence Minor 1: Score 6)**

There is always the risk of taking species other than sardines (such as mackerel) in large quantities due to the size of the nets used, and in some circumstances the area in which the net is being deployed.

**Elements of taking non permitted species (By-Catch) can include:**

- Fail to report By-Catch
- Fail to release By-Catch for the sake of losing sardines
- Fail to release By-catch (retain for personal use)
- Take of non-permitted species using gear other than a Sardine net

Whilst not directly a Compliance risk, inappropriate usage of social media such as Facebook and Twitter to draw attention to by-catch is an emerging risk to Industry. It is noted that Industry have taken steps to educate Skippers (who in turn are required to educate their crews) of the risks posed, including risk to Industry reputation, by such exposure.

5. **Other Compliance risks identified within the fishery that may occur will be addressed as they are detected. They include the following:**

- Fish closed areas
- Use net of non-lawful specifications
- Taking protected species
- Master or vessel not endorsed on a licence
- Take undersize (MSC)
- Take over limit (MSC)
- Fish Closed areas / Seasons (MSC)
- Use gear not endorsed on license (MSC)
- Fail to attend gear (MSC)
- Failure to lodge SARDI catch and effort returns
- Inaccurate or misleading reporting of catch location and volume on SARDI Returns
- Assist/provide services to other agencies (ie SAPOL, threats at sea amongst Industry)
### Risk Likelihood & Consequence Analysis:

<table>
<thead>
<tr>
<th>LIKELIHOOD</th>
<th>NEGLIGIBLE</th>
<th>MINOR</th>
<th>MODERATE</th>
<th>SEVERE</th>
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**Likelihood Definitions**

- **Likely** - It is expected to occur
- **Occasional** - May occur
- **Unlikely** - Some evidence to suggest this is possible here
- **Possible** - Uncommon, but has been known to occur elsewhere
- **Rare** - May occur in exceptional circumstances
- **Remote** - Never heard of but not impossible

**Consequence Definitions**

- **Negligible** - Insignificant impacts to population. Unlikely to be measurable against background variability for this population
- **Minor** - Possibly detectable, but minimal impact on population size and none on dynamics
- **Moderate** - Possibly exploitation rate, but long term recruitment / dynamics not adversely impacted
- **Severe** - Affecting recruitment levels of stocks / or their capacity to increase
- **Major** - Likely to cause local extinctions, if continued in longer term
- **Catastrophic** - Local extinctions are imminent / immediate

**Risk Rating**

- **Negligible**
- **Low**
- **Moderate**
- **High**
- **Extreme**
Strategies:

The following strategies have been developed to address each of the risks:

1. Education & Awareness
   - All interested parties understand their respective obligations
   - Develop Industry communication & relationship program

2. Deterrence
   - All aspects of Quota Management System are fully monitored
   - Enforcement Plan Communication Strategy
   - Enforcement Outcomes Communication Strategy
   - All aspects of fishing activity monitored

3. Enforcement
   - Maximise successful prosecutions Outcomes
   - Identify participants & methodology of Quota Evasions
   - Reduce ability to evade quota

Target Outcomes:

The following target outcomes have been identified:

- Quota Management System Integrity maintained
- Minimise Quota Evasion
- Minimize TEPS interactions; maximise reporting of TEPS interactions
- Minimize take of By-Catch / non permitted species

### Risks

1 = TEPS  
2 = Quota Management System Integrity  
3 = Quota Evasion  
4 = Take of Non-Permitted By-Catch

### Strategies

1 = Education & Awareness  
2 = Deterrence  
3 = Enforcement

### Coordination Team:

- West – Brett Willis (State Coordinator)  
- Southern Ranger – Shane Gassner  
- Policy Manager – Brad Milic

<table>
<thead>
<tr>
<th>Risks Addressed</th>
<th>Strategies</th>
<th>Initiative</th>
<th>Actions</th>
<th>Who</th>
<th>When</th>
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</table>
| 1 2 3 4         | 1 2 3      | 1 on 1 interactions | Update and distribute Fishery User Guide  
Meet with LH’s, RM’s and Fish Processors prior to season. Ensure all have a clear understanding of:  
- Legislative changes impacting coming season  
- Compliance focus for coming season  
- TEPS requirements including reporting of TEPS mortalities  
Have 1 on 1 interactions with LH’s, RM’s and Fish Processors throughout the season; ensure all remain clear on the rules and their obligations  
State Coordinator meets with PROTEC Observers every 3 months | SC, Ops Mgr, SC | Pre Season  
West, SR | Season |
| 1 2 3 4         | 1 2 3      | Induct new entrants | Induct new entrants | SC | As Required |
| 1 2 3 4         | 1 2 3      | Established liaison & contact with Industry | Have regular contact with SARDI, Policy, Industry Representatives and Stakeholders  
Prior to season commencing, present forthcoming season Compliance focus  
Attend Industry meetings. Communicate Industry performance. Raise Compliance issues in a timely manner  
Industry Days | Ops Mgr, SC, SC, Ops Mgr, FO’s | Ongoing  
Pre Season  
Season | Season |

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## Risks Addressed

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<thead>
<tr>
<th>Risks Addressed</th>
<th>Strategies</th>
<th>Initiative</th>
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<td>x x x x</td>
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<td>Audit</td>
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<td>Season</td>
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<td>• Identification of CDR irregularities</td>
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<td>• Monitor quota balance for exceeding catch</td>
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<td>• Cross check of CDR data against Prior Reports and Parts A &amp; B on selected licence holders and Fish Processors</td>
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<td>• Prior Reports</td>
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<td>• Conduct random VMS positioning audits to confirm vessels are fishing in authorised fishing grounds and closed areas</td>
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<td>Field based inspections</td>
<td>Inspections at sea, landing, transit and at Fish Processor</td>
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<td>Season</td>
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<td>TEPS</td>
<td>Includes but not limited to:</td>
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<td>Season</td>
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<td>• Southern Ranger and FPV Baudin boarding vessels unannounced to observe adherence to TEPS requirements</td>
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<td>• Monitoring of individual Skipper TEPS interaction reporting</td>
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<td>Regulatory review and revision</td>
<td>Contribute to amendment of legislation and policy where appropriate</td>
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<td>Media</td>
<td>Utilise media to update on successful prosecution outcomes</td>
<td>Ops Mgr, SC, PIRSA Comms</td>
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<td>Intelligence</td>
<td>Collate and analyse information received through FISHWATCH and Stakeholders</td>
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<td>Intelligence driven operations</td>
<td>Develop investigations and carry out targeted operations in line with the Serious Offence Plan</td>
<td>SC, SOG</td>
<td>Ongoing</td>
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<td>Investigate and manage TEPS interactions</td>
<td>SC, SOG West</td>
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<td>Address non-compliance</td>
<td>Investigate instances of non-compliance</td>
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<td>Take enforcement action including issue of Caution, Expiation and Brief</td>
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**Abbreviations:** FO (Fisheries Officer); Ops Mgrs (Regional Operations Manager); SR (Southern Ranger), SC (State Coordinator); West (West Region); PSC (Prosecution Steering Committee – PIRSA internal); SOG (Special Operations Group – PIRSA internal); PIRSA Comms (PIRSA Communications – PIRSA internal)