Freshwater fishing and fish stocking workshop

YMCA Camp Leslie Dam, Warwick
3 - 4 November 2018

Proceedings document

Queensland Government

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Summary

The 2018 Freshwater Fishing and Fish Stocking Workshop was help at YMCA Camp Leslie Dam, Warwick over the weekend of the 3 and 4 of November 2018. The workshop was run by the Department of Agriculture and Fisheries in conjunction with the Freshwater Fishing and Stocking Association of Queensland (FFSAQ).

Attendants included delegates from 40 stocking groups from throughout Queensland, 5 hatcheries, FFSAQ, Stocked Impoundment Permit Scheme (SIPS) Working Group, NSW Fisheries, Fisheries Research and Development Corporation (FRDC), Murray-Darling Basin Authority (MDBA), Aquaculture Association of Queensland (AAQ), Ozfish Unlimited and Department of Agriculture and Fisheries (DAF).

The workshop consisted of a combination of presentations, regional group discussion, open floor Q&A panel sessions and an evening information session.

Key outcomes of the workshop include the development of a stocking action plan, a stocking policy, cost effective monitoring plan and input for the review of the *Fisheries Act 1994* and *Fisheries Regulation 2008*. The workshop was also a great opportunity for stocking group members to share ideas and information between groups, with DAF and fisheries scientists.

Acknowledgments

YMCA Camp Leslie Dam

FFSAQ

Warwick District Recreational Fish Stocking Association Inc

The catering staff, particularly the two ladies

All delegates, presenters and DAF staff

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Workshop agenda

Freshwater Fishing & Fish Stocking Workshop
YMCA Camp Leslie Dam, Warwick, 3 – 4 November 2018
Program Outline

Day One: Saturday, 3 November 2018

Time	Presenter(s)	Description of activity
8:30 - 9:00		Delegates arrive and register
9:00 - 9:10	Neil Meiklejohn	Acknowledgement to country
9:10 - 9:20	James Lister (Member for Southern Downs)	Welcome to delegates
9:20 - 9:30	Peter Kind, DAF	Explanation of workshop program.
9:30 - 9:45	Kimberly Foster, DAF	1. Sustainable fisheries management in Queensland
9:45 - 10:00	Coby Walker, DAF	2. Compliance update
10:00 - 10:20	Daniel Smith, DAF	3. Reflecting on over 30 Years of fish stocking in Queensland and our vision for the future.
10:20-10:30	Garry Fitzgerald, SIPS Working Group	What makes a world class fishery
10:30 - 10:45		**Morning Tea**
10:45 – 12:00	Break-out groups facilitated by DAF	4. Workshop session 1 – Developing an action plan for Queensland's world class freshwater fisheries.
12.00 - 13:00		**Lunch**
13:00 – 13:15	John Crone, QAFCA	Insurance available through QAFCA for fish stocking groups
13:15 - 15:00	Break-out groups facilitated by DAF	5. Workshop session 2- Development of a stocking policy for Queensland.
15:00 - 15:15		**Afternoon tea**
15:15 - 15:30	John Dexter, DAF	6. Current status of aquaculture in Queensland
15:30 - 15:45	Rod Cheetham	7. Queensland Aquaculture Quality Assurance Program
15:45 - 16:00	Nathan Reynoldson & Craig Watson, NSW Fisheries	8. NSW Hatchery Quality Assurance
16:00 – 16:15	Julie Robins, DAF	9. Barramundi origins: determining the contribution of stocking to the barramundi catch on Queensland's east coast.
16:15 - 17:00	Steven Brooks & DAF Staff, DAF	10. Monitoring of stocked fisheries and information gaps followed by an open discussion of data required for management of stocked fisheries, options for collection of data and funding options for

		monitoring

18.00 - 19.00		**Dinner**
19:00 - 19:30	Toby Piddocke, FRDC	National Carp Control Program Update
19:30 - 20:00	Stefan Sawynok, Infofish	Infofish Update
20:00 - 20:30	Greg Ringwood	Murray Darling Basin Authority Update

Day two: Sunday, 4 of November

Time	Presenter (s)	Description of activity
7.00 - 8.00		Breakfast
8.00 - 8.30	FFSAQ Executive	Freshwater Fishing and Stocking Association of Queensland Update
8.30 – 9:00	Michael Hutchison, DAF	11. Impoundment Fish Attraction Project
9:00 – 9:10	Bob Reid, Warwick Fish Stocking Group	12. Condamine River habitat enhancement
9:10 - 9.40	Craig Copeland	13. OzFish Unlimited
9.40 - 10.30	Q&A Panel session: Michael Hutchison, Bob Reid, Craig Copeland, Steve Brooks and Greg Ringwood	Discuss experiences, issues and opportunities for habitat improvement in freshwater and stocked fisheries.
10.30 – 11:00		**Morning tea**
11:00 - 12.00	Group session facilitated by Peter Kind, DAF	Open issues and questions forum
12:00 – 12:15	Kimberly Foster, DAF	Next steps for Fisheries Queensland
12:15 – 12:30	Peter Kind, DAF	Reflection on workshop
12.30		**Close of workshop. Delegates depart**

Actions from the workshop

Key actions from the workshop include the development of an action plan for fish stocking, a policy for fish stocking in Queensland, a monitoring plan, and review of regulations relevant to fish stocking.

ACTION 1: Fish stocking action plan

Develop an action plan for fish stocking which aligns with the Sustainable Fisheries Strategy. The plan will outline a vision for fish stocking in Queensland, detail actions over the next two years and will be reviewed at the next state-wide stocking workshop. Key actions will include the development of a stocking policy for Queensland, a review of stocking permits and management plans, development of a cost effective monitoring plan, promotion of the stocking program, compliance of freshwater fisheries and extension for fish stocking.

ACTION 2: Fish stocking policy

Develop a single stocking policy for the whole of Queensland that includes all waters, both freshwater and marine, and the different types of fish stocking undertaken in Queensland. The policy is to be developed before the end of the 2018/19 financial year with a consultation period of at least 8 weeks to allow stocking groups a reasonable amount of time to consult their members.

The stocking policy is to include the following:

- Types of fish stocking and objectives (i.e. conservation, fodder, bio control);
- Guidance on species suitable, stocking rates, size of fingerlings, translocation of fish, monitoring, criteria for stocking locations and restricted areas;
- Minimum requirements for water level, impact on threatened species, drought, and type (i.e. dam, weir, rivers);
- Stocking in private dams;
- Quality of fingerlings including requirements for production and sale to stocking groups and private dams;
- Process and criteria for consideration of new species;
- Reporting and auditing requirements;
- Considerations for different uses and external factors such as harvest rates and fingerling loss;
- Templates for stocking groups including stocking manual, new species, fingerlings stocked and SIPS;
- Relevant legislation, permits required, stocking management plans, external considerations and impact assessment process; and
- Information requirements, monitoring and review process for management of fish stocking.

ACTION 3: Monitoring plan

Develop a monitoring plan that is cost effective and will address the information requirements to effectively manage fish stocking in Queensland. The monitoring should also be scientifically robust, comparable throughout Queensland and include new technologies and techniques.

ACTION 4: Fisheries Regulation 2008

Delegates identified a number of fishing rules and regulations relevant to freshwater fisheries in Queensland that should be reviewed. This includes size and possession limits, closed season, closed waters, no take species, use of bait species and non-indigenous fish.

Other actions from the workshop

The following table is a list of other actions from the workshop.

Action description	Responsibility
Disseminate workshop proceedings to all stocking groups and workshop attendees	DAF
Send workshop satisfaction survey to stocking groups with the workshop proceedings	DAF
Include a copy of all the presentations with the workshop proceedings	DAF
Distribute the following information: • Churchill report on US habitat • Economic SIPS survey report • Pocket guide and rec boating guide to NQ groups and groups that did not attend • List of attending delegates in proceedings • Contact list for stocking groups to develop a network • BQ legislation on pest fish • New and emerging research and reports relevant to stocking groups	DAF
Update projects/research on Finterest webpage	MDBA
Possible grant funding sources supplied to stocking groups.	DAF, FFSAQ and stocking groups
Discuss the illegal removal of snags from dams with the relevant authorities	DAF

Summary of Workshop Proceedings

Key points raised during workshop presentations and key points raised during workshop sessions are outlined below.

Workshop Presentation: Sustainable fisheries management in Queensland

Presenter: Kimberly Foster

Key points:

- In June 2017, the Queensland Government released the Sustainable Fisheries Strategy (SFS) 2017-2027. It paves the way for Queensland to have a world-class fisheries management system.
- It's the biggest fisheries reform in Queensland's history.
- It will ensure healthy fish stocks that are more resilient to other influences (e.g. bleaching, climate change).
- It will deliver Queensland a more modern and responsive management system that is based on good monitoring and research.
- It addresses a number of actions under the Reef 2050 Long-term Sustainability Plan, highlighting the government's commitment to the Great Barrier Reef.
- 10 reform areas with $20 million over 3 years to kick start the reforms.
- The SFS applies to freshwater fishing and fish stocking.
- Reforms relevant to freshwater include:
  - Improved engagement
  - Review fishing rules & reducing regulatory complexity
  - Harvest Strategies with catch limits or relevant controls & objectives to achieve
  - Environmental risk assessments to identify & measure impacts of fishing
  - Improved monitoring and research to support evidence-based decision-making
  - A boost to compliance
- Improvements under the reform include:
  - Good policy framework for stocking
  - Best practice fisheries management
  - Transparent and defensible management
  - Quality assurance for fingerlings
  - World-class fishing experiences
  - Fishing is not an unacceptable risk to ecosystems

Workshop Presentation: Queensland Boating and Fisheries Patrol (QBFP) update

Presenter: Coby Walker

Key points:

- Communication is the key to improving compliance.
- Encourage stocking groups and fishers to call your local QBFP officers and build relationships.
- Invite your local QBFP officer to attend stocking group events such as AGM, fishing competitions and fingerling releases.
- Promote QBFP within your club and encourage members to report information to QBFP. Even small bits of information can be important.
- Promote your relationship with QBFP by taking photos of your members and QBFP interacting and post on social media, newspapers etc.
- Compliance is one of the key reforms under the Sustainable Fisheries Strategy (SFS)
- Funding under the SFS has increased the capacity of many districts with additional inspectors.
- Act amendments will enhance the ability of inspectors to detect offences by an increase in the powers of entry
- Major issues in freshwater include:
  - Black marketing of fisheries resources
  - Set lines and use of tidal nets (commercial/cast/seine) in freshwater
  - Large area to patrol and problematic remote locations
  - Spread of pest fish including tilapia
  - Adverse reactions from fishers to the SIPS changes
- Minor issues in freshwater include:
  - Unmarked and abandoned apparatus
  - Use of non-indigenous bait (redclaw crayfish, saltwater yabbies, goldfish)
  - Phone coverage and battery failure for electronic SIPS
  - Paper SIPS permit fades after 6-8 weeks
  - Expectation of local SIPS sales points by tourists
- Over 800 freshwater inspections done in the first three months of this financial year with over 90% compliance with the rules and regulations. 100% compliance with commercial eel and aquaculture inspections done in the same period.
- Freshwater inspections make up a small percentage for most districts except Kingaroy and Warwick which are 100% freshwater inspections.
- QBFP have competing priorities which include saltwater, freshwater, fisheries, boating, commercial fisheries, recreational fisheries, district priorities, cluster priorities and state wide priorities.

Workshop Presentation: Over 30 years of fish stocking and a vision for the future

Presenter: Daniel Smith

Key points:

- Vision for the future includes the development of an action plan and fish stocking policy which defines the vision and pathway for achievement including:
  - The use of Fish Attracting Structures (FAS) and habitat improvement to increase catch rates and fisher satisfaction.
  - Monitoring of freshwater fisheries to improve fisheries via better stocking rates, allocation of funds and reduced impact to wild populations and the environment.
  - Compliance and promotion of freshwater fisheries to increase use by fishers and increase revenue from SIPS.
  - Improve fingerling supply including the quality of fingerlings, genetics of fingerlings and risk to the environment by disease transfer and translocation of fish species.
- The 2018 survey of SIPS permit holders indicate:
  - The most fished SIPS impoundments are the larger dams in southern Queensland close to the major population centres.
  - The SIPS fisheries are fishing ok with nearly 60% of fishers catching legal and undersize fish in a 12 month period.
  - Still room for improvement with over 30% of fishers not catching any fish.
  - The majority of fishers are intending to catch and release fish with less than 15% of fishers intending to keep fish.
- 2012 economic survey of 31 dams on SIPS indicated the then fisheries were worth $95 million annually in trip associated costs. The survey also highlighted facilities were important for visitation rates and most the time more important than the fishery.
- 2012 ecological risk assessment of the fish stocking program identified some high risk areas including disease transfer, reduction of genetic diversity in wild populations and introduction of flora and fauna in fingerling batches.
- SIPS sales up approximately $25K in 2017/18 despite a trending decline in recreational fishing participation. May be influenced by recent promotion of SIPS and increased compliance/education.
- Fish stocking has widely been used as an effective fisheries management tool in Queensland freshwaters.
- Types of fish stocking include conservation, enhancement, put grow take, fodder, private dams, mosquito control and potentially increased commercial catches from fish stocking.
- Over 50 million fish stocked into Queensland waters since the bulk stocking of fingerlings began in the mid-1980s.

Workshop Presentation: What makes a world class fishery?

Presenter: Garry Fitzgerald

Key points:

- We claim our fisheries are world class but are they really?
- A world class fishery is not just the fishery. It also includes the facilities and access.
- Important considerations for the water to create the fishery are the depth of the impoundment, carrying capacity of boats on the impoundment, minimum water levels, history of water use/levels and proximity of the impoundment to large population centres.

- Important consideration for the fish are the species diversity, available target species including currently available and required for the future, the value of endemic/non stocked species, fishery types including trophy, catch and release, harvest and impact of pest fish on the fishery.
- Access considerations include:
  - Roads to location – dirt, sealed and condition
  - Shoreline only
  - Shoreline and paddle craft
  - Boating restrictions – speed, engine size and engine type
  - Ramps – dirt, concrete and can be used at all water levels
  - Hour of access
  - Gates, private property and inconsistent access
  - Exclusion areas on water body
  - Other permits required
- Facility considerations include:
  - Types of accommodation – none, bush camping, cabins, tourist park, motels, café, restaurants, entertainment venues and kids playgrounds
  - Amenities – public, private, toilets, showers and where they are located.
  - Proximity to services an shopping – hospital, chemist, tackle stores, fuel, grocery stores
  - Tourist information centres and other activities available
  - Charter boats, fishing guides and hire boats
  - Navigation aids on the water

Workshop Session – Developing an action plan for Queensland's world class freshwater fisheries

Delegates separated into regional groups and discussed the successes and failures of the fish stocking program, identified issues and suggested ideas on how to improve the program. Details of the key points from the discussions are presented in the tables below. The key points identified were:

Successes of stocking program	Description
Overall the stocking program has been a success	Evident by: • number of fishers using the stocked fisheries – interstate visitors, fishing competition numbers, increase in participation from permit sales, tourism data, data collected by stocking groups, tourist parks • available fisheries – catch rates, size range of fish, number of fish caught, tag returns • surveys - sate-wide rec fishing survey and 2018 SIPS permit holder survey • social media interest – Facebook, twitter, Instagram • feedback from retailers – tackle stores, boat yards

	• exposure of the program to corporate, government and the public
Fish species stocked	Barramundi, golden perch, Australian bass, Murray cod, sooty grunter, sleepy cod within their stocked ranges. Mary River cod in rivers of South East Queensland. Saratoga has had limited success in southern and central Queensland
Fingerling sizes	The current range of fingerling sizes permitted to be stocked has worked well 50mm to 300mm. However, in SEQ fingerling sizes smaller than 50mm have worked well. Good return on 35mm bass.

Failures of stocking program	**Description**
Fish species stocked	Silver perch in southern and central Queensland. Saratoga in central and north Queensland. Mangrove jack in trialled stocking locations. Mary River cod in dams. Some of the suggested reason for failures include the number stocked, price of fingerlings and lack of supply.

Issues associated with fish stocking	**Description**
Access to the fisheries	This was identified as one of the key limiting factors to freshwater fisheries in Queensland. A lot of rivers are surrounded by private property and impoundments also have restricted hours of access, differing types of boating access and areas restricted to fishing.
Lack of facilities	Including boat ramps, accommodation, cleaning tables, lighting, kid's playground/adventure parks etc.
Flood and water flow	Flooding can result in the displacement of stocked fish away from the stocked location, generally downstream from dams and weirs. Large fish kills can also be the result of significant flooding.
Water resource planning/cold water pollution	The release of cold water from the bottom of a dam can have significant impacts on the productivity and survival of fish downstream from the dam.

Land clearing and vegetation removal	The removal of habitat from dam/weirs/rivers and also the removal of riparian vegetation which is important for fish.
Fingerling supply in some regions	Inconsistent supply of fingerlings in some regions of Queensland including the Gulf of Carpentaria and North Queensland. Mainly barramundi and sooty grunter fingerlings. Also saratoga fingerling supply in southern Queensland. Genetics of barramundi which are produced primarily for consumption.
Water storage operators and local government	Engagement with water storage operators and local council. Water supply the primary concern for water storage operators and local government and often fishing as a secondary consideration.
Compliance	Lack of compliance with rules and regulations and black market of freshwater fish.
Membership and age of members	A lack of membership in groups and an ageing population amongst stocking groups.
Translocation of species	Stocking of fish outside their natural range can have limited success due to their adaptability to the conditions. Can also have an adverse impact on other fish and the environment.
Pest fish	The impact of pest fish on the environment and competition with socked fish.
Increased price of fingerlings	Increasing cost of fingerlings reducing the number of fish that can be stocked.
Legal requirement associated with events and fishing competitions	The complexity and time associated with meeting the legal requirements, particularly if children are involved.
Harvest rates at dams and rivers	Different regions of Queensland have varying levels of catch, release and harvest. How we incorporate this into our stocking plans and rates.
Habitat	Available habitat in dams and rivers.

Ideas to improve the stocking program	**Description**
Increased funding	For stocking groups to operate and also improve and maintain their fisheries.

	Funding through increased SIPS sales, other grants and fundraising such as the plastic bottle 10c scheme. SIPS to include a flat fee with no concession and the requirement for a SIPS permit for any type of fishing on a SIPS impoundment (i.e. redclaw crayfishing)
Private, public and corporate partnerships	To increase the awareness and promote the stocking program. May also assist an increase in funding.
Monitoring	To determine how fisheries are performing and adjust stocking rates, management plans and SIPS allocations accordingly. Suggested ideas included catch cards, creel surveys, electrofishing, otoliths and rec fishing app.
Use of technology	Continue to adopt new technologies to improve the program. Example includes the new recreational fishing app due for release in early 2019. The app will assist fishers to identify fish, simplify the use of SIPS permits and record catch.
Awareness and education	Continue to communicate between stocking groups and DAF, FFSAQ and all of the public. Use all communication techniques including signs, social media, printed material etc. Communication will assist with awareness about pest fish and the impacts of using non-indigenous fish as bait.
Issue longer SIPS permits	Consider issuing permits for a longer period of time such as 3 years to make it easier for customers that buy one every year and to line up with other states.
Habitat	Improvement of habitat and the inclusion of fish attracting structures (FAS) to increase survival of stocked fish, carrying capacity of the fisheries and the satisfaction of fishers through better catches.
New species for stocking	All of the regional groups excluding the Murray Darling region identified that new species for stocking could have potential benefits for the stocking program in their region. Some of the species identified included: NQ and Gulf – Jungle Perch, Archer fish, eel tailed catfish, long tom, snub nose gar, redclaw, threadfin, Trevally species, mullet, sooties, yellowbelly

	SEQ – Jungle perch, mangrove jack, sea mullet, freshwater gar (food), barra (maybe) Central – Mangrove jack, mullet, Consider species that control pest species
Improve fingerling quality	Better quality fingerlings will ensure better return for investment and reduce the risk of stocking.
Regional stocking workshops	To focus on stocking at a regional level and get more stocking groups to attend.

Workshop Presentation: QAFCA insurance available for fish stocking groups

Presenter: John Crone

Key points:

- QAFCA use an insurance broker to get the best possible insurance for their members and affiliated bodies.
- Stocking group can affiliate with QAFCA to meet their insurance requirements for fish stocking, fishing competitions and other events they conduct.
- Stocking groups pay per member. Over 20 stocking groups use QFCA insurance.
- Insurance cover includes:
  - $20 million public liability and products liability
  - $2 million professional indemnity
  - Loss of income up to $250/week
  - $5,000 funeral benefit
  - $2,500 non-Medicare medical expenses
  - $75,000 for capital benefit
- Insurance covers all members, coaches, officials, first aid personnel, administrators and voluntary workers of Queensland Amateur Fishing Clubs Association Inc. and its affiliated bodies

Workshop Session – Development of a stocking policy for Queensland

Delegates separated into regional groups and discussed what a stocking policy for Queensland should include. Each regional group presented their key points back to the entire workshop group at the end of the session. The key points identified were:

Topics for consideration in a stocking policy	Description
One stocking policy for Queensland	Should cover both freshwater and marine fish stocking. Also cover the different types of fish stocking in Queensland – conservation, enhancement, catch and release/harvest, put grow take/release, SIPS, private

	waters, fodder, bio control/remediation (mosquito control)
Fish species stocked	Policy should include the current species that are permitted to be stocked in each catchment. New species to be included in the policy with a process for assessment which includes a risk assessment/environmental impact statement. Also clearly outline the need for new species i.e. niche fishery, pest fish control etc. Policy to outline species not to be stocked including pest species and freshwater trout species. Develop a template for stocking groups for new species trials with all the required fields/information. Stocking groups to decide which new species out of an approved list to trial. Important to monitor new species and assess the success and impacts. Share leanings for other groups and the future.
Locations of stocking	Include a list of catchments and locations where stocking is not supported. Some of the suggested locations include the Lake Eyre Basin Catchment, Catchments of Cape York that are currently not stocked, Noosa Catchment and Tinana Creek. Some regions suggested no marine stocking directly. The locations stocked should be correlated to the types of stockings i.e. conservation stocking only considered in the Lake Eyre Basin.
Stocking rates	Include rates in the policy as a guide for the development of stocking management plans. Need different stocking rates for: • new and existing stocked locations • dams, weirs and rivers • types of stocking i.e. enhancement and put grow take • harvest vs catch and release • water levels and surface area of the location • species type and natural recruitment • genetics of fingerlings available • impact on other species and the environment Monitoring was identified as very important to assessing the stocking rates and for adjustment of stocking rates to improve and maintain the fisheries.

Size of stocked fish	Suggest a min and maximum size for each species stocked to optimise return on investment. The 50mm minimum and 300mm maximum has worked well. In SEQ, 35mm bass fingerlings has provided a great return for cost.
Translocation	Translocation of stocked species and broodstock collection addressed by policy and consistent with other policy/legislation i.e. broodstock policy
Rules and regulations	Policy to include the importance of having different rules and regulation for stocked locations versus the wild. i.e. exemption for barramundi closed season in stocked waterways.
Access to fisheries	Policy to include access, the importance of access and how to improve/maintain access.
Fingerling supply	Ensure the quality of fingerlings via legislation and policy including broodstock policy, development approvals, hatchery quality assurance etc. Also ensure genetic diversity of stocked fish via the policy.
Contamination of fish for consumption	Consider impacts of contamination, such as mercury/PFAS in fish on the use of stocked fisheries.

Other topics discussed	**Description**
SIPS for all types of fishing	This would increase revenue available for stocking by requiring fishers targeting red claw crayfish to purchase a SIP. May also simplifier compliance.
Rules and regulations	Consistent size and possession limits species throughout their range in Queensland. No maximum legal size on impoundments i.e. barramundi. Some delegates suggested a possession limit for redclaw crayfish.
Allocation of SIPS funds	Allocate funds according to fisher use, harvest rates and loss of fingerlings.
Template	Develop templates for stocking activities and training of stocking groups and members.

Workshop Presentation: Current status of aquaculture in Queensland

Presenter: John Dexter

Key points:

- Broodstock collection policy has recently been updated to improve the traceability of broodstock and fingerlings, assist with assessing the effectiveness of current fish stocking and reduce impact on threatened and rare species.
- All new permits issued will require broodstock collected for fish stocking to be tagged and a genetic fin clipped supplied to DAF.
- Hatcheries supplying the Murray Darling basin have already had their broodstock permits amended. This was initiated by the Fish Gen program.
- Fish Gen program aims to determine stocked fish from wild fish in the whole of the Murray Darling Basin.
- Only aquaculture operations with a development approval can sell fish for stocking. Aquaculture operations under the accepted development requirements are not permitted to sell fish for stocking.
- There has been increasing scrutiny regarding the impacts of stocking programs.
- Hatchery quality assurance for operations who supply fish for stocking.
- Requirements for hatcheries to be included in future stocking policy.
- Total production of freshwater species in 2016/17 (excluding barramundi) was 268.6 tonnes, increase from 222.7 tonnes in 2015/16.
- Total value of freshwater species in 2016/17 $3.4 million.
- Total production for hatchery and aquarium sector in 2016/17 was 16.9 million fish.
- Value of fingerlings sold for restocking increased by 13.6% from $968 000 in 2015/16 to $1.1 million in 2016/17.
- Fingerling sales increased for Murray cod, but declined for golden perch, jade perch, barramundi, Australian bass and silver perch.
- Value of the aquaculture industry in 2016-17 was $119.7 million with a total production of 7869 tonnes. The most valuable sectors are the prawn and barramundi. Majority of production is from central and north Queensland.

Workshop Presentation: Queensland Aquaculture Quality Assurance Program

Presenter: Rod Cheetham

Key points:

- The Aquaculture Associations of Queensland (AAQ) has developed a quality assurance program for hatcheries. Includes the Commercial Hatchery Code of Best Practice and a process for assessing hatcheries against the code.
- The program aims to improve the quality of fingerlings and reduce the risk to the environment.
- It is a voluntary process and open to financial members of AAQ. Hatcheries not members of AAQ can take an audit and pay for the expenses incurred by the independent auditor.
- The audit itself involves a site visit and inspection of all relevant facilities and records. Hatcheries must make all relevant aspects available for inspection.
- Rod Cheetham has done 6 AAQ hatchery audits.

- Key topics covered by the code and audit process include:
  - Ecological Sustainable Development
  - Genetic variation maximised for fish stocked in Qld Waters
  - Maximised health & integrity of broodstock and progeny
  - Approved chemicals & treatments
  - Prevention of movement of unwanted fauna, flora and diseases
  - Appropriate species stocked
  - Reliable and field proven methods of counting larvae & fingerlings
  - Auditing and breach correction
  - Farm design
  - Records and traceability
- Should a breach of the code be suspected, all complaints from organisations or businesses must be written and addressed to the Secretary of the AAQ. AAQ will initiate an investigation and written response.

Workshop Presentation: NSW hatchery quality assurance

Presenter: Nathan Reynoldson

Key points:

- NSW Hatchery Quality Assurance Scheme (HQAS) was released and implemented in 2007 to accredit hatcheries.
- Developed to meet the requirements of the NSW Freshwater Fish Stocking Fishery Management Strategy (FMS).
- Used the essential and recommended criteria of the Hatchery Quality Assurance Program that was developed in 2004 to address concerns related to the supply of hatchery bred native fish.
- The HQAS:
  - Includes standards, accreditation, audit, compliance for NSW hatcheries producing native fish for public waters.
  - Applies to Murray Cod, Golden Perch and Australian Bass.
  - Introduced broodstock genetic zones.
- Standards under the HQAS include:
  - Approvals – Class H aquaculture permit, broodstock collection permit, fish stocking permit and biosecurity translocation permit
  - Site Characteristics – water supply, located within MDB, outside flood level.
  - Ponds and tanks – Screens, drainable, reservoir, effluent discharge
  - Hatchery infrastructure – filtration, capacity, drainage.
  - Water quality maintenance – equipment, monitoring plan
  - Disease and health management – management plan, surveillance, sterilisation, quarantine, sampling.
  - Chemicals – inventory, permits.
  - Broodstock Genetic Regions – 2 for Murray Cod, 1 for Golden Perch & 3 for Australian Bass.
  - Broodstock and breeding – minimum pairs, spawning Ne, Tagging, separation
  - Marking – in conjunction with MDBA & DPI. Fish GEN.

    - Dispatch – health statements, examination, non-target species, quarantine, transport, sterilisation.
    - Records – broodstock, health statements, breeding records, disease surveillance, water quality, veterinarian reports.
- HQAS accreditation and compliance includes:
    - Application forms submitted to Scheme Manager.
    - Auditor carries out application audit.
    - Applications requiring corrective action – minor defects must complete Corrective Action Form to progress. Major defects must apply for a compliance audit.
    - Accreditation granted – accreditation must be maintained.
    - Accreditation refused – insufficient knowledge of HQAS, insufficient management of control to operate, not in public interest, requirements not met or disqualified applicant.
    - Defects- minor (deviation from HQAS standards), major (deficiencies in record keeping) and critical (gross malpractice that compromises the scheme)
    - Compliance Declaration are submitted annually or at request of Scheme Manager
    - Audits conducted every three years or randomly via appointment.
    - Corrective action request to rectify minor or major defects
    - Cancellation and suspension under Scheme Managers discretion.
    - Review and re-accreditation – hatcheries can appeal the Scheme Managers decision, re-accreditation following a compliance audit.

Workshop Presentation: NSW fish stocking programs

Presenter: Craig Watson

Key points:

- About 2-3 million native fish and 3 million salmonids are stocked annually in NSW.
- Stocking has been a very useful management technique to enhance angling opportunities and for species recovery.
- All fish releases in NSW public waters require a fish stocking permit.
- Stocking is conducted where possible in conjunction with habitat rehabilitation projects.
- Hatcheries involved in fish stocking are accredited through HQAS to ensure fish released are of the highest standard.
- The Freshwater Fish Stocking Fishery Management Strategy (FMS) has led to direct research outcomes to influence management of stocking programs.
- NSW Government stocking programs include salmonid stocking, native fish stocking, freshwater conservation stockings and marine fish stocking.
- NSW community stocking programs include the 4 native fish restocking program and Independent/cultural/ceremonial stockings.
- Fish fingerlings are produced at:
    - DPI hatcheries based at Port Stephens, Narrandera (native fish), Ebor and Jindabyne (trout & salmon)
    - Private fish hatcheries across NSW - 3 hatcheries on the east coast produce Australian Bass and 6 hatcheries in inland NSW produce Golden Perch and Murray Cod
- Fish are stocked by:
    - DPI & acclimatisation societies from DPI produced fish

  - DPI also receives and assess fish stocking requests from fishing clubs, councils, indigenous/cultural groups and individuals from the $4M program and independent fund
- Fish stocking assessments are carried out annually. NSW DPI assesses more than 1,800 release sites across the state each year under the FMS.
- All requests are assessed under FMS stocking review guidelines.

Workshop Presentation: Barramundi origins - determining the contribution of stocking to the barramundi catch on Queensland's east coast

Presenter: Julie Robins

Key points:

- FRDC funded project
- Objective of the project is to:
  - distinguish stocked barramundi from wild barramundi using otolith microchemistry, near Infra-Red Spectrum and genetics
  - conduct a cost-benefit analysis of the techniques
  - inform future stock assessments of barramundi & ongoing monitoring
  - assess the historic catch of barramundi and understand what drives barramundi catches in Queensland.
- Genetic and otolith samples to be collected from stocked and wild fish.
- Using the library of otoliths collected over the years by DAF.
- Stocked fish collected from hatchery before release and impoundments after release.
- Wild fish collected from commercial and recreational catch.
- Need assistance from recreational fishers and stocking groups with good places for collecting small wild barramundi.
- There are 6 genetic stocks of barramundi in Queensland.
- Changes in commercial catch and CPUE can be attributed to fishing pressure, environment including flows and stocked fish.
- No understanding of the impact of stocked fish on the catch.

Workshop Presentation and Discussion: Monitoring of stocked fisheries and information gaps

Presenter: Steven Brooks

Key points:

The historic and current monitoring of stocked fisheries in Queensland was presented and with some of the emerging technologies and techniques for monitoring to ensure effective management of stocked fisheries**.** Key issues presented included:

- the need for a coordinated monitoring approach across Queensland that clearly addresses the information required to manage the stocked fisheries, is cost effective, statistically valid/robust and comparable throughout Queensland;
- the need to consider new emerging technologies with existing techniques to improve efficiency and cost. New techniques such as rec fishing apps, electronic catch cards/diaries and electronic boat ramp monitoring;

- current monitoring including state wide rec fishing surveys, stocking group records and fishing competitions, tagging of stocked fish, citizen science projects such as Dumaresq River Murray Cod Project, opportunistic external monitoring projects including FRDC projects, Infofish projects etc.;
- historically monitoring of stocked fisheries has been done by pre stocking surveys, post stocking surveys, catch cards, creel surveys, tagging studies and other targeted research; and
- the data use and limitations of each monitoring technique.

The session was followed by an open discussion about information required to improve the management of stocked freshwater fisheries in Queensland and some techniques that may be suitable. The key points identified:

Monitoring topic	Description
Information required for management of stocked fisheries	• Harvest rates of stocked fish in dams, weirs and rivers. • How many fish are in the stocked locations, what size ranges are present and how many should we be stocking. • The social and economic benefits of the different stocked locations. • Motivation of fishers. How much is a stocked fish worth to catch i.e. what is a 1m barra worth to catch for a fisher. • Movement of stocked fish and interaction with wild fish populations. • Growth rates and condition of stocked fish.
Ideas for monitoring	• Monitor on a priority and rotational basis to reduce the cost of monitoring. • Questionnaire/survey when you purchase your SIPS permit. • Catch data collected via an online survey, mobile phone app with the use of photos. Would still require an option for paper to get all fishers or some type of validation like in person surveys at boat ramps. • Boat ramp surveys to get number of fishers and catch. • Use of new citizen science technology such as Track My Fish. • Camp site interviews • Electronic monitoring of fish cleaning tables. • Motion cameras/traffic counters at entry points/ramps
Communication	• Need to convey the importance of monitoring to fishers and the public.

	• Clearly demonstrate how the information will be used to manage the stocked fisheries. • Techniques include radio interviews, advertising, signage at stocked locations, encourage kids to get their parents involved. • Increase participation through the use of incentives such as prizes.
Other data collected	• Utilise other data collected to reduce cost of monitoring. • Electrofishing data collected. • Length and weights of fish caught. • Counts of recreational use at impoundments.

Evening information sessions

Toby Piddocke presented an update on the National Carp Control Program including the status of the review and plan for the future.

Stefan Sawynok presented an update on Infofish including their new applications and abilities for tracking and monitoring fishery resources.

Greg Ringwood presented and update on the Murray Darling Basin Authority and the activities that are occurring in the Murray Darling Basin.

Workshop Presentation: Freshwater fish attracting structures "A new tool to improve fishing quality and access in Australian impoundments

Presenter: Michael Hutchison

Key points:

- Potential to significantly improve the fishing and associated social and economic benefits by enhancing habitat within impoundments.
- Fish habitat is a major limiting factor in many impoundments
  - Most habitat is cleared when impoundments are built
  - Habitat degrades as impoundments age
- Habitat enhancement and the use of fish attracting structures has been practiced in impoundments around the world, but has rarely been utilized in Australia.
- Dr Andrew Norris visited the USA and examined their use of habitat enhancement in impoundment fisheries.
- The benefits of habitat improvement in the US include:
  - Impoundment habitat enhancements have led to significant increases in fish size, growth rates, production, survival of juveniles, carrying capacity and aggregation.
  - The cost of rehabilitation is often recovered after only a few years but the benefits continue to persist.
  - Utilised by almost all state agencies.
- Project objectives include:

  - Evaluate the ability of several types of modular fish attracting structures (FAS) to attract a range of native fish species
  - Evaluate the impacts of FAS on angler catch rates and angler satisfaction
  - Evaluate the impact of FAS on angler visitation rates
  - Develop best practice guidelines for installation of FAS in Australian impoundments
- Project is being undertaken on Cressbrook Dam, Kinchant Dam and Mt Morgan Dam.
- The steps of the project include:
  - Baseline surveys
  - Development of Fish Attraction Plans
  - Construction and deployment of Fish Attracting Structures (FAS)
  - Evaluation of fish use of different FAS types
  - Evaluation of angler catch, angler satisfaction and angler visitation rates
  - Development of best practice guidelines
  - Extension of results
- Project funded by FRDC, local councils and SIPS.
- Past habitat work by DAF and Condamine Alliance in Oakey Creek, Myall Creek and part of the Condamine River near Dalby led to demonstrated improvements in numbers of golden perch, catfish, Murray cod and some small bodied species.

Workshop Presentation: OzFish Unlimited – Better habitat, better fishing

Presenter: Craig Copeland

Key points:

- Ozfish is a not-for-profit organisation dedicated to helping recreational fishers increase the health of their waterways.
- Craig Copeland launched OzFish Unlimited after seeing how effective Trout Unlimited has been in the US at improving recreational fishing mainly through habitat and experience in habitat rehabilitation from working at NSW DPI.
- OzFish Unlimited have assisted and initiated various projects throughout Australia and it is increasing as time goes on.
- Activities undertaken by OzFish Unlimited include:
  - Catch and release fishing competitions (funds raised go to habitat activities)
  - Carp/Tilapia fish outs (as education tools)
  - Riparian revegetation and fencing
  - Community education on waterway health
  - Water quality and oyster health monitoring
  - River Resnagging
  - Litter clean-up and water quality improvement
  - Fish passage remediation
  - Fish monitoring
  - Oyster shell recycling
  - Shellfish reef restoration
- OzFish Unlimited have fishing ambassadors, such as Steve Starling, Al McGlashan, Michael Guest and Scott Hillier, promoting the benefits of habitat improvement for fishing.
- OzFish Unlimited has corporate partnership with big businesses including BCF. BCF take donations that go directly to OzFish Unlimited for habitat improvement.

- OzFish Unlimited is registered with the Charitable Organisation and is a Tax Deductable Gift Recipient (DGR).
- Fish stocking groups in Queensland are encouraged to contact OzFish Unlimited for assistance to undertake habitat rehabilitation projects.
- Significant degradation of habitat and barriers to fish passage in Australia.
- Habitat improvement improves fish abundance and hence fishing. An example included a threefold increase in Murray cod abundance following a re-snagging project.

Workshop Session: Habitat Improvement Q&A panel

Panel: Greg Ringwood (MDBA), Michael Hutchison (DAF), Craig Copeland (Ozfish)

The topics in the table below were discussed during the session.

Habitat topic	Description
Simple and effective techniques to improve habitat.	The discussion included affordable and effective habitats that each stocking group can use, optimum water depth for deployment of habitat and the use of fringing and riparian vegetation. The panel's responses included: • PVC structures are the cheapest and easiest to deploy. Recycled materials are cheaper than purchasing then new. • Depending on dam characteristics (species, average water levels, dam use) the type of structures used will be different. • Volunteer days are the best way to get the community involved. • Council branch removal can be a source of free habitat. • Habitat techniques for dams are not suitable for rivers with their increased water velocity, particularly during flood events. • Other states (NSW) are making some management agreements to use lopped trees as habitat in their dams and rivers. Removing the mulching that currently takes place. • Contact and education with landholders is important, so their fallen trees can be used for habitat instead of burning them. • Optimum deployment of habitat requires the average water level of the dam, a range of different structures in different locations to ensure different water levels will contain suitable habitat for fishing. Structures may become exposed at low water levels but this is not of

	concern as they will be re-submerged when water levels rise. • Shore based Fish Attraction Structures (FAS) are effective but limited by weedy margins in some areas. Pontoons are used to increase access to deployed structures in the US. Also useful with good site facilities to attract more visitors. • Riparian and fringing vegetation requires stable water levels when applied to dams which make it difficult as they are always fluctuating. Some fringing vegetation is more likely to be effective from dams but is very subject to each dam.
Aquatic weed removal, disposal and treatment	Issues with the removal and disposal techniques of aquatic weeds was discussed. A particular issue was raised by a stocking group concerned with the current removal techniques from their water body. Removed weed is dumped close to the banks of the system with the group concerned that the near system disposal could cause blackwater events when washed back in. The panel's responses included: • the near water disposal will cause blackwater events if washed back into the system; • bad management practices to dump on the edge. The local council/group responsible should be educated to change their management practices to correctly dispose of algae once removed; and • Other ineffective management practices were explained such as weeds removed and then disposed on neighbouring farmland as fertiliser. All nutrients from the algae was transported back into the system after rain events resulting in more algae blooms. Another stocking group member explained how their council removed the weeds to their local mulch site to reduce the chance of causing a blackwater event. They then treated the water body with water beatles that feed on the remaining algae to reduce the chance of another algae bloom.
Obtaining approvals for habitat deployment and rehabilitation	Issues with obtaining relevant approvals for habitat work and techniques for success were discussed

	The panel's response included: • A large amount of approvals and work was required to undertaking re-snagging projects in the rivers. Ozfish is able to assist groups with their applications and approvals to undertake re-snagging work. • It is important for stocking groups to demonstrate their proposed work and present the advantages/benefits the work will provide to the relevant authorities • Habitat can keep people away from dam walls and infrastructure. • Prove that structures won't move and affect water supply with toxic chemicals. • Use examples of other successful operations from different areas. • Stocking groups need one information source/application template they can use when submitting applications to different authorities. • A best practice manual for Australian freshwater fisheries is being developed as part of the FRDC habitat project on Cressbrook Dam. This is due for completion in 2-3 years. • Stocking groups can use the Churchill report (US study of new habitat in dams) to demonstrate how habitat has improved the fisheries in the US with minimal impact on water supply and safety.
Competing user groups and impact on habitat	An example of recreational skiers illegally removing snags from stocked areas was discussed. The panels response included: • Community engagement and public involvement to recognise the importance of recreational fishing in each region is important. • Need to work in collaboration with other recreational groups to ensure all users can benefit. • Need to present areas of high and low risk.
Rehabilitation of habitat before the release of the Carp virus	Many people were concerned with the release of the virus and a number of areas still without any suitable habitat for native species. It's important that suitable habitat is reintroduced into these areas before removal of carp so native species can repopulate. Without suitable habitat native species are unlikely to

	repopulate the areas and carp are likely to be reintroduced with time. The panel recommended communication with local groups to address these concerns before releasing the virus.
Native Fish Strategy	Panel members agreed the program should be reintroduced, but was unlikely with a change of government and loss of governmental support for the program. http://www.finterest.com.au/

Workshop Session: Open issues and questions forum

The following information was discussed during the forum:

- The Queensland Government advised, as part of the release of the Sustainable Fisheries Strategy in 2017, does not support the introduction of a state-wide recreational fishing licence.
- Other funding is available via NRM bodies, councils, major businesses and various grants (i.e. gambling fund). Help available for applications via organisations such as “The Right Balance” by Sharine Hancock. These organisations take a percentage of the grant for the service. Stocking groups that have used this service highly recommend it.
- The workshop was funded from the community engagement allocation of the SIPS revenue.
- Consider more regular regional and state-wide stocking workshops.
- Regulation changes for pest fish. Now managed under Biosecurity Queensland legislation. Non-indigenous fish still managed under fisheries legislation.
- Translocation of non-indigenous fish.
- Changes to SIPS – were progressed in 2015/2016 as a result of a Regulatory Impact Statement process with feedback from stocking groups and general public. The Queensland Government increases the cost of SIPS permit and fixed the fee for five years, until 2021, instead of applying annual CPI increases. The Queensland Government introduced individual permits (i.e. removal of couple permit) to ensure all fishers are contributing equally, improve compliance and align with other states.
- Fingerling supply issue and requirements under the grant agreements. Any issues that cannot be resolved between the stocking group and hatchery should be reported to DAF for resolution.

Workshop Presentation: Condamine River habitat enhancement

Presenter: Greg Ringwood

Poster: Bob Reid and Warwick District Recreational Fish Stocking Association Inc

Key points:

- The Warwick stocking group have actively been involved with restoring and enhancing instream habitat within the Condamine River.

- Examples of the structures and habitat reintroduced into the system were presented along with the required work for other groups to do the same projects.

DAF staff attendance

Name	Designation
Claire Anderson	Executive Director, Fisheries Queensland
Kimberly Foster	Director, Management & Reform, Fisheries Queensland
John Dexter	Manager, Aquaculture, Freshwater & Harvest Fisheries, Fisheries Queensland
Peter Kind (facilitator)	Principal Scientist, Assessment & Monitoring, Fisheries Queensland
Steve Brooks	Fisheries Manager, Freshwater, Fisheries Queensland
Daniel Smith	Fisheries Resource Officer, Fisheries Queensland
Luke Albury	Graduate Policy Officer, Fisheries Queensland
Coby Walker	District Offcier, Queensland Boating & Fisheries Patrol
Michael Devlin	District Offcier, Queensland Boating & Fisheries Patrol
Peter Dixon	District Offcier, Queensland Boating & Fisheries Patrol
Paul Kuhn	District Offcier, Queensland Boating & Fisheries Patrol
Ben Lalley	District Offcier, Queensland Boating & Fisheries Patrol
Michael Hutchison	Principal Fisheries Biologist, Animal Science
Julie Robins	Senior Fisheries Biologist, Agri-Science Queensland

FFSAQ attendance

Name	Designation
Charlie Ladd	President/Treasurer, FFSAQ
Joe Legrady	Secretary, FFSAQ
Lloyd Willmann	Media Officer, FFSAQ
Trevor Saunders	Vice President, FFSAQ

Organisations attendance

Fish stocking groups	Delegates
Biggenden Fishing Club	Lofty Wendt & Gavin Kelly
Bjelke Petersen Dam Fish Management Committee Inc.	Bill Schloss & Matthew Langford

Boondooma Dam Fish Stocking and Management Association Inc.	Ashley McDonald & Preston Fisher
Brisbane Valley Anglers Fish Stocking Association	Phil Bevis & Kerry McDougall
Burdekin Fish Restocking Association Inc.	Allan Griggs & George Jarvis
Caboolture Shire Fish Stocking Group Inc.	Denise Kelly & Leslie Clark
Cairns Area Fish Stocking Group Inc.	John Mondora & Jennifer Mondora
Callide Valley Native Fish Stocking Association Inc.	Shawn Entriken & Artie Clapham
Charters Towers Dalrymple Fish Stocking Group Inc	Dave Luxton
Croydon Fishing and Boating Club Inc.	Jason Knudsen & Densie Knudsen
Ewen Maddock Fish Management Inc.	Andrew McKinnon & Steve Poole
Fitzroy River Fish Stocking Association Inc.	Jason Stanfield & Andrew McClelland
Glenlyon Dam Fish Restocking Group Inc.	Brian Dare & Russell Sharpe
Hinze Dam Fish Management Committee	Ian Jeffers & Ron Wood
Ingham Rod and Reel Club Inc.	Paul Dametto & Blane Marsh
Lake Borumba Fish Stocking Association Incorporated	Peter Beasley & Therese Beasley
Lake Coolmunda Restocking Group Inc.	Roger Peardon & Peter Thompson
Lake Macdonald Freshwater Fishing Association Inc.	Peter Arch & Michael Geary
Lockyer Valley Fish Restocking Association	Ben Faber & Peter Voigt
Logan and Albert Fish Management Association Inc.	Glenn Cahill & Tom Wallbank
Mackay Area Fish Stocking Association Inc.	Matt Tratt & Keith Day
Maroon Moogerah Fish Management Association Inc.	John Wernowski & Scott Vagg
Mount Isa Fish Stocking Group Inc.	Steve Farnsworth & Peter Bacon
Mount Morgan Promotion and Development Inc.	Graeme Meade

Moura Fish Stocking Group Inc.	Peter Ein & Christophee Cole
Murila Fish Stocking Association Inc.	Patsy Gundry & Ross Gundry
Nobby & District Fishing Club Inc.	Brian Kuhn & Christine Kuhn
Oakey Freshwater Fish Stocking Association Inc.	Rodney Christensen & David Harder
Paradise Stocking Association	Phil Walker
Pine Rivers Fish Management Association Inc.	Ross Cobb & Noel Frost
Somerset and Wivenhoe Fish Stocking Association Inc.	Steve Stajzewski & Andrew Marshall
St George and District Fishing and Restocking Club Incorporated	Joe Lamb
Stanthorpe Blue Water Fishing and Restocking Club Inc.	Brittany Reyner, Phil Warr & Michael Skimmings
Taroom Fishing and Restocking Club Inc.	George Alexander Petrie
The Tableland Fish Stocking Society Inc.	Mike Cappo & Ann Leighton
Toowoomba and District Fish Stocking Association	Peter Taylor & Ben Corrigan
Townsville Barramundi Stocking Society Inc.	Rhyce Bullimore & Adrian Tuck
Warwick District Recreational Fish Stocking Association Inc	Rodger Martin, Les Meiklejohn, Ken Martin, Barry Hounslow & Ed Kemp
Wuruma Dam Fish Restocking Association Incorporated	David Johnson, Hinke Johnson & Chris McMillian

Fish hatcheries	**Delegates**
Australian Native Fish Enterprises	Andrew Shaw
Gladstone Area Water Board	Thomas Hayes & Ron Elliott
Hanwood Fish Hatchery	Max and Craig Cluff
Redgate Fish Farm	David Rose
Granite Belt Fish Hatchery	Nick Donges

Other Attendees	Delegates
AAQ consultant	Rod Cheetham
FRDC	Toby Piddocke
Infofish Services	Stefan Sawynok
LNP member for Southern Downs	Mr James Lister
Murray Darling Basin Authority	Greg Ringwood
NSW Fisheries	Craig Watson
NSW Fisheries	Nathan Reynoldson
OzFish Unlimited	Craig Copeland
SIPS Working Group	Garry Fitzgerald
SIPS Working Group	Ian Leighton
SIPS Working Group	Terry McGeachin
SIPS Working Group	Daryl Cupitt
Southern Downs Regional Council	Neil Meiklejohn