



aquaculturenews

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Minister Meets NSW Aquaculture Industry Leaders



Stewart Fielder (I&I NSW), Minister Steve Whan and Justin Fromm (NAC) preparing farmed kingfish at the SFM

Joint Aquaculture Committees Meeting

A joint meeting of NSW aquaculture consultative committees was held at the Sydney Fish Market on 4 May 2010. The aim was to consolidate roles and streamline links between committees. The event also provided an opportunity to raise priority issues to support the development of the NSW aquaculture industry. At the conclusion of the meeting industry met with Minister Steve Whan and other leaders of the Australian seafood industry (FRDC, Seafood CRC, National Aquaculture Council, Sydney Fish Market) at a function at the SFM Seafood School. Issues raised by industry, State and Commonwealth representatives have been allocated to the Aquaculture Research Advisory Committee, the Peak Oyster Advisory Group and the Land Based Aquaculture Consultative Group to progress with I&I NSW.



Michael Wright (ARAC) and Facilitator Lloyd Kingham listing priority industry development issues at the meeting

Oyster industry leads the way in managing risk

There are now six southern NSW oyster growing areas (Hawkesbury, Clyde, Wapengo, Merimbula, Pambula and Wonboyn) implementing environmental management systems (EMS) to manage the risks faced by the industry. A number of additional estuaries have started the process this year. In each area farmers are coming together to provide innovative solutions to reduce risks highlighted through a risk assessment process. Communication with industry stakeholders including Catchment Management Authority's, local Council and OceanWatch Australia, have helped to change the oyster industry's awareness of potential impacts to their businesses. This has promoted a movement toward environmental best practice. In addition, some of the projects that the growers are undertaking communicate to the wider community the role of oyster farmers as stewards for healthy catchments.

Representing these six EMS areas, Shane Buckley from Wapengo and Greg Carton from Pambula presented a talk at the Australasian Aquaculture conference in Hobart in May 2010, on the trials and tribulations of implementing EMSs. The talk highlighted two common issues across the industry: the process of disposing of old infrastructure given the introduction of new cultivation systems, and the need to properly manage any impacts on water quality. The talk was well received and raised lots of interest for the development of EMSs elsewhere. Well done guys!

Contact: Ana Rubio 0427 285 999

Introduction of a new lease allocation policy

The current policy for aquaculture lease allocation requires advertisement for expressions of interest and competitive allocation where there are competing interests. In the past, auction has been the preferred method of competitive allocation although recently tenders were successfully held.

The current policy has led to criticism that leases are not receiving true market value and that "leases have been given away" thereby devaluing other current leases. There is criticism that advertisements have been missed by interested parties who only become aware of the application after it is finalised and the lease is granted. In these cases, I&I NSW is failing to maximise returns to the community for the allocation of a public resources for a private use. Current policy also means that each applicant for an aquaculture lease tender must pay an application fee and that this fee is not refundable.

To address these issues a revised aquaculture lease allocation policy will be introduced on 1 July 2010. The key features of the new policy are:

- All new aquaculture lease applications will be allocated by competitive allocation with the default method being tender,
- Tenders will be held in **March and September** each year,
- All new applications received from 1 July 2010 and some vacant Priority Oyster Aquaculture Area selected by I&I NSW will be offered,
- There will be a minimum tender premium set to cover the cost of running the tender, and
- Only the successful tenderer will pay an application fee, the minimum tender premium and any other premium offered for the lease.

The exceptions to putting a new lease application to competitive allocation will be:

- The applicant has intellectual property over the identification of the site as an area suitable for aquaculture. This exception only applies if the application is for an area that is not covered by an Aquaculture Industry Development Plan made under s.143 of the Act and the application is not for edible oyster farming,
- The lease is to be allocated to a phase-out lessee,
- The application is from a current lessee who because of hydrological or other environmental/management issues seeks to remove a section of the lease that has become unsuitable for aquaculture and new suitable area applied for. This exception only applies if: the new application includes at least 50% of the current lease area; a new survey is provided; Development Approval provisions are met if the new area is non-Priority Oyster Aquaculture Area; and, the applicant has a good history of managing the area and agrees to surrender the area not covered by the proposed new lease and remove all improvements,
- The application is over former lease area pending clean up and the applicant agrees to clean it up at their own expense as a condition of the application. The clean up of such leases must result in a substantial benefit to the State and will therefore be assessed for eligibility on a case by case basis, and
- The Director Fisheries Conservation and Aquaculture approves the allocation of the lease by non-competitive process because it is in the public interest (for example, to correct an administrative error) or to promote viable aquaculture industries in accordance with s.3 of the Act.

Contact: Janine Sakker I&I NSW 4916 3847

Success with rearing Southern Bluefin Tuna

In 2010 the I&I NSW marine fish hatchery team at Port Stephens Fisheries Institute successfully reared southern bluefin tuna (SBT) to juvenile stage, the only hatchery in Australia to do so. This is a collaborative project with the Australian Seafood CRC.

The South Australian company Clean Seas Tuna has successfully induced captive SBT broodstock to spawn. Production of fertilised eggs has been successful over

each of the last three years with tens of millions of fertilised eggs produced and batches have successfully been transported to Adelaide, Port Stephens and Darwin. Other stakeholders in the Australian Seafood Cooperative Research Centre include the Fisheries Research and Development Corporation, South Australian Research and Development Institute, the University of the Sunshine Coast, Flinders University, the Northern Territory Department of Regional Development, Primary Industries, and Fisheries and Resources and the University of Tasmania.

The Seafood CRC tuna breeding program was a winner in the Cooperative Research Centres of Australia 2010 awards. The imperative for breeding tuna was increased late last year with the announcement of an average global reduction in quotas for wild-catch of SBT of 20% and a reduction in the quota for Australia of 30%.

Contact: Stewart Fielder I&I NSW 4916 3902

Climate change adaption

The National Adaptation Research Network for Marine Biodiversity and Resources (ARN-MBR) is running a project to facilitate climate change adaptation and resilience in the Australian edible oyster industry. Changing rainfall, sea-level and temperatures, and acidification of oceans are likely to impact on the year-to-year quality and profitability of oyster production. Two workshops were held in NSW in April 2010 where the current state of climate change science was presented. Growers discussed their observations, and what needs to be done to adapt to change. One interesting outcome from the sessions was the high level of optimism expressed by industry participants. Results will be updated in future newsletters.

Contact: Steve McOrrie I&I NSW 4916 3921

Ornamental fish management – noxious fish list

In April 2010, 68 entries were added to the NSW noxious fish list to better manage the potential for introduction and spread of noxious fish in Australia. The NSW noxious fish list now includes many additional freshwater ornamental fish species that have been agreed nationally as having a high-risk pest potential. The changes are an outcome of the national strategy "A Strategic approach to the management of ornamental fish in Australia" which was developed in partnership with the ornamental fish industry and all State and Territory governments. For more information on the implementation of the national strategy in NSW, or to see the current NSW noxious fish list, see www.industry.nsw.gov.au and search for "noxious fish".

Contact: Melissa Walker I&I NSW 4916 3911

New oyster research project

A new project has been funded by the Seafood CRC, the Select Oyster Company (SOCo) and I&I NSW. This project will look at the potential to incorporate "marketability" characteristics as traits for a selective breeding program for Sydney rock and Pacific oysters. This research will be undertaken by Wayne O'Connor and Mike Dove. It will begin with the validation of a new rapid and low cost tool for chemical analysis of oyster composition. Researchers will then establish an appropriate data management system to record the results

of performance data collected from over 60 pair-mated oyster families deployed in three NSW estuaries. At the end of the project researchers will prepare a breeding strategy which describes how these characteristics can be incorporated into the SOCo selective breeding program.
Contact: Wayne O'Connor I&I NSW 4916 3906

Water quality probe installed in Hawkesbury River

Hornsby Shire Council has installed a water quality probe (temperature, salinity, chlorophyll-a) at Bar Island as part of their estuary management plan and ongoing support of the oyster industry. The data provided by this and the other probes throughout the river provide real time data and will be invaluable as part of decision making for flood mitigation in the future. See

<http://mhl.nsw.gov.au/projects/hscsal/>

Contact: Ana Rubio 0427 285 999



Aquaculture Research Advisory Committee (ARAC)

ARAC met in Sydney on 5 May 2010. For a full summary of the meeting see www.dpi.nsw.gov.au

The Committee was provided with an update on the Winter Mortality Pilot Project where sampling is taking place in the Georges and Crookhaven rivers. The ARAC R&D Strategic Plan 2007-2012 will see some minor changes through its annual review. The Committee has made several suggestions and the responses received from permit holders last year regarding research initiatives will also be included. ARAC discussed the research levies that had been calculated for oysters and non-oyster aquaculture in NSW that are due to the FRDC. This annual contribution to FRDC is matched by the Commonwealth Government and supports aquaculture research in NSW. An invitation to register historical material will soon be circulated to oyster farmers as the initial step in progressing an oral history and photographic archive of the NSW Oyster Industry. The issue of norovirus and PCR testing in the Kalang River was discussed and ARAC have asked for a brief about the issues affecting the Kalang River.

Contact: Jo Pickles I&I NSW 4916 3901

Suspected invasive sea squirt in Twofold Bay

The response to the suspected outbreak of an invasive exotic sea squirt in Twofold Bay, Eden was moved to stand-down on 14 May 2010 and a Quarantine Order was formally revoked on 21 May 2010. The sea squirt was initially detected in March and confirmed not to be the

invasive exotic *Didemnum vexillum* by national and international experts. Pat Mather, a world taxonomic expert based at the Queensland Museum, concluded that the majority of specimens collected were the native *Didemnum patulum*, but a few specimens have so far been identified only to the genus *Didemnum* (of which there are over 70 species in Australia). Nevertheless, I&I NSW scientists concluded that none of the specimens collected were invasive. An after action review is now underway to consider the emergency response process and determine areas that can be improved. I&I NSW thanks the aquaculture industry and other stakeholders for their cooperation, patience and vigilance during this response. See www.industry.nsw.gov.au/info/seasquirt

Contact: Brigid Krug I&I NSW 4916 3978

Aquaculture Administration services

The Aquaculture Unit continues to work to reduce the turn around time to complete permit and lease applications. To assist in meeting this goal please ensure all sections of your application forms are completed before submitting them for assessment. Common areas overlooked on oyster application forms include:

- The submission of colour photographs that have the lease number, time and date they were taken written on them to support the Aquaculture Lease Area Condition Statement (ALAC),
- That signatures are dated in both the ALAC Declaration and Application Declaration sections of the form, and
- The submission of the original lease deeds, where required.

Application Forms and Information Kits explaining the process for each type of transaction are available on <http://www.dpi.nsw.gov.au/fisheries/aquaculture/forms> or by contacting Aquaculture Administration at Port Stephens on 4982 1232. Please don't hesitate to contact us should you need assistance or advice when submitting an application.

This financial year, I&I NSW 17 lease based permits have been granted with 2 pending and 12 land based permits have been granted with 6 permit applications pending.

Annual Production Reports

It's nearly that time of year again. Production returns will be forwarded to all permit holders the last week in August 2010. Please ensure all returns are submitted back to the department by the 30 September 2010. We waste time and resources each year chasing up overdue reports, time that we would prefer to spend on processing your applications. Your co-operation is appreciated. For Aquaculture Production Reports from 1999-2009 see <http://www.dpi.nsw.gov.au/fisheries/aquaculture/publications/aquaculture-production-reports>

Contact: Janine Sakker I&I NSW 4916 3847

Winter mortality investigations

Although Sydney rock oyster stock losses are regularly attributed to Winter Mortality (caused by *Bonamia roughleyi*), particularly on the NSW South Coast, the evidence is less than compelling and Winter Mortality remains very poorly understood. To achieve a greater

understanding of winter mortality and the causative agent(s), a study was launched at the beginning of 2010 covering the entire Winter Mortality season in two NSW estuaries (Shoalhaven and Georges rivers).

Samples are being collected at three weekly intervals from March to November. To date six of 11 batches have been examined and the oysters have been generally healthy looking with no obvious signs of any disease. DNA-based tests have detected the presence of Haplosporidium in 20-30% oysters from both estuaries and Bonamia from Georges River only. These are preliminary results and as we move into the winter months the next three or four rounds of sampling should prove interesting. A further update will be provided in the next Aquaculture newsletter.
Contact: Jane Frances I&I NSW 4916 3904

Development application referrals under SEPP 62

Responses and preliminary advice were provided for 21 proposed developments which had the potential to impact on oyster aquaculture during the last financial year. These ranged from large residential and industrial subdivisions through to on-site sewage treatment systems for single dwellings.

Contact: Katie Sachs I&I NSW 4916 3913

Derelict oyster lease clean up project

Approximately 62 derelict leases (92 hectares) have been cleaned up or will be cleaned up in the near future under the Derelict Oyster Lease Clean Up Project. A number of derelict leases were cleared by local farmers in Port Stephens and the Clyde River with funding provided by the Hunter Central Rivers and Southern Rivers Catchment Management Authorities. Twenty seven derelict leases were taken up as a result of the I&I NSW Derelict Lease Offer in early 2010. The new lease application fee was waived for these leases on the proviso that they were cleaned up in accordance with an approved workplan. Other leases have been cleaned up following compliance and preliminary legal action against individual lessees who have not fulfilled lease clean up responsibilities.

Contact: Katie Sachs I&I NSW 4916 3913

Richmond Oyster Mortality

In March this year oyster growers in the Richmond River experienced significant losses of hatchery produced QX resistant stock. The mortalities followed prolonged wet weather events. Samples were submitted to the laboratory and QX has been confirmed. I&I NSW is working closely with SOCo and the local industry to investigate the circumstances surrounding these mortalities. The issue is scheduled for discussion at the next meeting of the Peak Oyster Advisory Group in 2010.

Contact: Mike Dove I&I NSW 4916 3807

Hatchery Quality Assurance Scheme

Eight compliance audits of accredited hatcheries have been conducted in central and southern NSW so far in 2010. Compliance levels have been high and there are ongoing discussions with hatchery operators on ways to improve the scheme. An EIS for marine fish stocking is progressing and if approved will lead to the inclusion of marine species within the HQAS. A consultancy to consider streamlining disease testing requirements for fish

translocations between Victoria, NSW and Queensland has been finalised. Actions are underway to introduce risk based testing rather than batch testing of stock. A Species Impact Statement for broodstock taken from the Darling and Lachlan Endangered Ecological Communities has been prepared and is due for public consultation shortly.

Contact: Ian Lyall I&I NSW 4916 3856

Refusal of oyster lease transactions

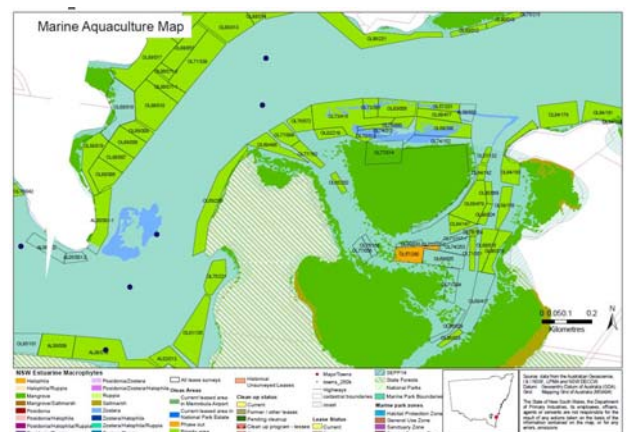
To assist I&I NSW's and the industry's continuing efforts to reduce the number of derelict leases, Aquaculture Management/Administration is introducing a new policy to refuse new oyster lease applications, renewals, transfers, etc where the applicant has outstanding clean up responsibilities on any terminated lease(s). The applications/renewals/transfers and other lease transactions may be refused on the grounds that "the applicant has, in the Minister's opinion, a poor record of managing one or more other leased areas" (Clauses 31(3)(e), 39(3)(d) and 45(4)(e) of the Fisheries Management (Aquaculture) Regulation 2007). This administrative policy will commence 1 July 2010.

Contact: Janine Sakker I&I NSW 4916 3847

Geographical information system (GIS)

GIS is any system that captures, stores, analyses and presents data that are linked to location. In the simplest terms, GIS is the merging of mapping and database technology. The data layer for marine aquaculture leases in NSW is now part of I&I NSW's corporate spatial data system. This will allow easy and quick access to accurate, up-to-date data for compliance, emergency response and food safety events. It will also enable the spatial data to be linked to the government's key GIS internet portal (Lands SIX) providing access to other relevant departments.

Contact: Antonia Creese I&I NSW 4916 3810



Australian Aquaculture 2010

I&I NSW staff participated in the Australasian Aquaculture 2010 conference in Hobart in May. This biennial conference and trade show attracted approximately 1,000 delegates and is the premier aquaculture event for farmers, researchers and aquaculture service providers. I&I NSW staff arranged a trade booth to showcase aquaculture research and opportunities for development in NSW and supported a trade booth for ACIAR. I&I NSW staff organised five presentation sessions:

- Native Fish and Inland Aquaculture (Stuart Rowland),
- Aquaculture in Vietnam: Status and Opportunities (Geoff Allan),
- Marine Finfish and Shellfish Hatchery sessions (Geoff Allan, Wayne O'Connor, Stewart Fielder), and
- Managing and Recovering from a Natural Disaster – An Industry Perspective (Ian Lyall).

Presentations by staff included talks on: Silver perch culture including cage culture trials, economic assessment of an intra-specific cross of silver perch, the ACIAR Fisheries Program, lessons from the Hawkesbury River QX disease outbreak in 2005, developments toward pipi reseeding in NSW, and a regulatory approach to planning for sustainable aquaculture development in NSW.

The National Aquaculture Committee was held concurrently as well as a number of meetings with investors looking to establish aquaculture businesses in NSW. Following the conference, I&I staff co-organised a hatchery technology workshop for the Aquaculture Innovation Hub. The workshop was oversubscribed and over 50 people participated at the UTAS (TAFI) Marine Research Laboratories at Taroom.

Creosote spill in Tuross Lake

Following early June storms a 200 litre drum of creosote from an unknown source was located leaking into Tuross Lake. The NSW Fire Brigade installed booms around the affected area and the NSW Food Authority has been working with DECCW and NSW Maritime to manage the spill. The area was shut to oyster harvest, fishing and swimming during the incident.



Final research reports

Aquafin CRC Project: Feed Technology for Temperate Fish Species. Feeding Strategies and Diet Development.

-The final report for the Aquafin CRC project investigating mullet and yellowtail kingfish.

Development and delivery of technology for production, enhancement and aquaculture of blacklip abalone in NSW.

-This report describes the positive results of a large enhancement trial with abalone off Port Stephens.

Securing and Enhancing the Sydney Rock Oyster Breeding Program, Final Report FRDC/Seafood CRC.

-This report describes research to secure QX resistant breeding lines and to identify genes associated with QX disease resistance.

Contact: Geoff Allan I&I NSW 4916 3909

Electricity cost savings?

Following on from an industry profitability issue raised at ARAC after the Joint Aquaculture Meeting in May, I&I NSW has organised electrical efficiency audits of four aquaculture farms; an oyster farm (Port Stephens), a recirculation farm (Port Stephens) a pond-based farm (Gloucester) and the marine hatchery at Port Stephens Fisheries Institute. It is hoped that the findings may assist the broader aquaculture industry with information to implement cost savings in the future.

Contact: Geoff Allan I&I NSW 4916 3909

South coast oyster farmers manage Pacific oysters

Pacific oyster working bees were held on the Clyde River on 22 May 2010 and at Wagonga Inlet on 19 June 2010. Oyster farmers teamed up with the Southern Rivers Catchment Authority, Wagonga Rangers, I&I NSW and Batemans Bay Marine Park Authority to remove the pest from hotspots, mainly along estuary foreshores.



Pacific oyster control day Wagonga Inlet June 2010

Pacific Oyster Management Plans for the Clyde River and Wagonga Inlet were rolled over once again in May 2010.

Contact: Katie Sachs I&I NSW 4916 3913

Severe Weather Events - Available Assistance

In the last few years there have been a number of severe events along the NSW coastline resulting in impact on the aquaculture industry. The Natural Disaster Relief and Recovery Arrangements (NDRRA) offers assistance to primary producers impacted by these events. Assistance depends upon the extent of damage. The 2010 south coast floods triggered 'standard' assistance which included access to low interest loans through the Rural Assistance Authority. Where a natural disaster causes severe and widespread damage to regions and whole communities, 'additional' assistance may be offered. For example as a result of the severe north and mid-north coast floods in 2009 a grant was offered under the Community Recovery Package.

In order for the State government to declare a natural disaster it assesses the impacts to aquaculture producers in terms of infrastructure damage and stock loss. This is used in conjunction with information gathered from the rural sector and the community. Where a natural disaster declaration has been made, affected farmers in need of assistance may apply for loans of up to \$130,000 at a concessional interest rate of 2.56% per annum. These loans are made available to provide essential working

capital and for the replacement and repair of damage not covered by insurance. See

www.raa.nsw.gov.au/assistance/natural-disaster-relief/loans/faq

Financial Hardship – Available Assistance

Where farmers are suffering financial hardship assistance may be provided by the following:

Rural Financial Counsellors: The Counsellor's main role is to help farmers access government support, their service is free of charge, confidential and the Counsellor can often arrange a home visit. Counsellors are also available to help in discussions with your bank (loan restructure) and can assist with the I&I NSW fee and debt waiver form. See www.daff.gov.au/agriculture-food/drought/rfcs/counsellors/nsw

I&I NSW Aquaculture Administration can discuss the option of a payment plan involving regular monthly instalments for farmers experiencing financial difficulties. Permit holders may also apply for a fee and debt waiver. The waiver for financial hardship is based on income and assets. **Contact: Aquaculture Administration 4982 1232**

The NSW Food Authority (NSWFA) may consider a waiver of fees and charges for those farmers suffering financial hardship. **Contact: NSWFA Licensing Branch 6552 3000**

Land and Property Management Authority may offer assistance with a waiver of rental fees on Crown Land leases.

Local Councils may offer assistance with the payment of rates under a payment plan. Contact your local Council's Rates Section.

Centrelink can provide assistance with emergency income support for eligible applicants. They can also provide social workers and counselling support. **Contact: Centrelink 180 22 33**

Joyce Paterson will now collect information on the impacts of natural disasters or disease events in the NSW aquaculture industry. This will help coordinate information required to trigger natural disaster declarations and to ensure Biosecurity are informed of disease events.

Contact: Joyce Paterson I&I NSW 4916 3919
Email joyce.paterson@industry.nsw.gov.au

Kalang River update

Dye testing revealed two areas where leakage between on-site disposal systems or private sewerage system and the river was likely. The on-site systems service houses along Atherton Drive. The Council and NSW Land and Property Management Authority have taken action to either prohibit use or repair the systems. Of the private sewerage systems that service two Caravan Parks in the area, one is now shut down as part of a re-development of

the site and Council is working with the owner of the second Caravan Park to make all necessary repairs. The Urunga sewage treatment plant has been effectively ruled out as a contributing source of sanitary contamination of the harvest area. Council is systematically working through all high risk on-site disposal systems close to the river to identify any problems and have them remediated. Norovirus monitoring of oysters to check for the success of measures taken to date is set to commence this winter.

Contact: Tim Gippel I&I NSW 4916 3823

Far south coast foreshore clean ups

At Wapengo Lake, a total of 30 oyster growers and local community members turned out on a brilliant autumn day to help out. By splitting the volunteers into groups, the entire foreshore was covered in a 'Clean-up Australia Day' style event. More than 6 cubic metres of waste was collected, the majority being old oyster infrastructure such as tarred sticks and treated pine posts. Volunteers were then treated to a BBQ on the shores of Wapengo Lake. At Pambula Lake, a lovely winter's afternoon saw more than 20 volunteers enjoying a BBQ before heading out to walk the foreshore. More than 20 cubic metres of waste was collected from around the foreshore, consisting of old oyster infrastructure, as well plastic and glass bottles, thongs, and even the remains of an old boat! The clean-ups were instigated by the local oyster growers, in partnership with the Southern Rivers Catchment Management Authority local community groups, including Wapengo Watershed Association and Pambula Wetlands and Heritage Committee and I&I NSW.

Contact: Helen Davies SRCMA 6491 8203



Pambula oyster grower Neil Gill loads oyster waste

Aquaculture News is a newsletter for the aquaculture industry in NSW.

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