

The Aquaculture Team at the EPA

What we have been up to

and

Where to next.

Tara Ingerson and Coby Mathews



What I want to talk to you about today

- Role of the EPA
- Environmental surveys
 - Purpose
 - How we go about it
 - Regional Visit Timetable
- Where to Next
 - Oyster Code
 - Waste Baskets

Where the EPA fits in

- Aquaculture Licence – PIRSA Fisheries and Aquaculture
 - New applications and amendments referred to EPA for assessment
 - 6 weeks to comment
 - Request additional information
 - Power of veto

Environmental Surveys

- Surveys
 - Site visits
 - Informal environmental surveys with site manager / owner
 - Not a compliance check
 - Regional trips every 6 – 8 weeks
 - Aim to visit every region minimum once per year
- 71 site visits since 2008 – 28 Oyster growers.

Cowell	5	Coffin Bay	4
Streaky Bay	5	Smoky Bay	2
Ceduna	2	Yorke Peninsula	3
Kangaroo Island	3	Haslam	1
Hatcheries	2		

Surveys - What they are for

- Awareness of who the EPA are and our role (one of many govt departments)
- Industry awareness of their environmental obligations
- Opportunity for EPA and industry to discuss any environmental issues
- Provide the EPA with actual rather than perceived information
- Current licence information on file – assist in PIRSA licence changes
- Ensure the EPA are up to date on current production and management
- Identify gaps/ issues relating to the management of the industry
- Build relationships with our key stakeholders

Environmental surveys – what we do

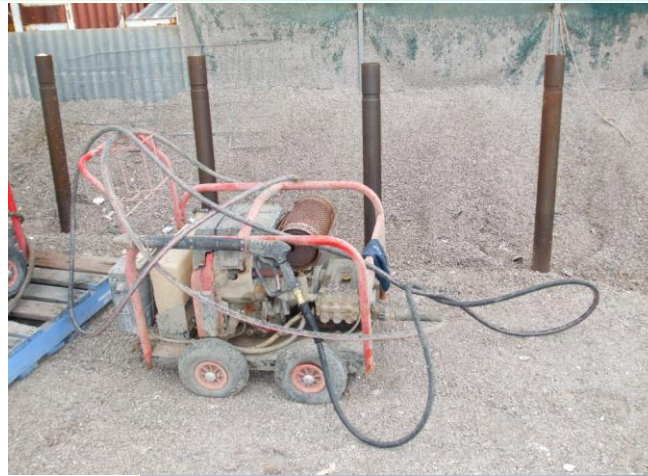
- Survey undertaken with the licensee/ farm manager
 - Water quality
 - Waste management
 - Air Quality: Odour and Noise
 - Site Contamination
 - Marine Site
- Information entered into database
- Confidential
- Copy of survey sent to licensee to clarify detail



Marine Site - Seagrass



Basket Cleaning – Waste, Odour, Water Discharge, Noise



Mortalities – Waste, Odour, Site Contamination



Fuel Storage – Site Contamination, Water Quality



Infrastructure – Waste



Grading – Noise, Wastewater



Environmental Survey

Name of Farm LicenceNumber Type of Farm

ContactPerson Officers Present

Date of Visit Visit Number Monthly Report

Culture System Roadways Vehicles Waste Disposal Feed Water Use, Treatment and Discharge Equipment Cleaning Chemicals Processing Environmental Management General Photographs

Is there any discharge of wastewater?

How much water is used/discharged?

Where is the wastewater discharged to?

Is there wastewater treatment systems in place? If so what are they?

What size are the settlement/culture ponds

Is there potential for pond seepage to occur?

Do the ponds have overflow provisions? Is there any pond erosion that may allow wastewater to escape?

Are there any nearby waterways (surface and ground) and is there the potential for water quality contamination?

NB: This section on intake/outtake pipes is only applicable to pump-ashore flow through systems.

Number of Intake Pipes:

Number of Outflow Pipes:

Discharge Location:

Outflow characteristics?

General Comments



Find Record



Save Record



New Record



Return to Front Page



Close Form

Environmental Survey for:

October 2008

Farm Details

This section provides general information regarding the farm that was visited

Date of Visit:

Contact Person

Officers Present: Tara Ingerson and Shiloh Gerrity

Type of Farm: Pumpashore

Species Cultured: Abalone

Production Capacity: 70 tonnes

Farm Size: Numerous tanks, mazes,
raceways and pipes

Other Comments

Used the Abalone Code of Practice as a checklist to ensure EPA requirements are met.

Did the Ecomapping with Bryce Roughtley in a different capacity therefore has a good knowledge regarding EMS and ecomapping.

The Eastern area was shut down for refurbishment due to inefficiency in pumping costs.

Use of Vehicles/Vessels

Information on Vehicle/Vessel use and potential impacts to the environment

What vehicles/vessels are used on site? Boats to access pipes and collect broodstock, Vehicles for transport around the farm.

Is all vehicle access designed to minimise dust/and or erosion? Yes

Are the vehicle access areas free of fuel and oil spillage? Yes

Do blacktop surfaces have appropriate stormwater runoff? n/a

General vehicle access comments:

Main dirt road into farm. Minor tracks around the farm.

If a vessel/vehicle is used to access marine sites - where is it launched?

Natural rocky boat ramp located on property.

Are vehicles regularly serviced to prevent noise, fumes and leakages? Unknown

Are vehicles refuelled on site? Yes

Is there potential for refuelling to result in fuel/oil entering the water or soil? Yes

General Comments on the use of Vehicles/Vessels

2 x 44 gallon drums stored on site for refuelling boat.

Environmental Survey for:

October 2008

Water Use / Storage / Treatment

What are the farms water requirements, how is it stored/used/treated and where is it discharged to.

This section includes information on culture ponds, wastewater ponds and pump-ashore systems with intake and outlet pipes.

Where is water sourced from? Ocean

How much water is used? W:1000L/sec E:400-300L/sec - Water only circulates through one tank.
Remains in system for ~ 6 minutes.

Is there any discharge of wastewater? Yes Where is it discharged to? Coast - Rocky intertidal.

Is the wastewater treated? Yes How? East has algae scrubbers and a settlement pond

How large are the ponds (settlement ponds and culture ponds?) ~ 1000m² settlement pond

Is there potential for pond seepage? No Water escape? No

Do the ponds have overflow provisions? Yes

Are there any natural waterbodies located closeby (surface and groundwater) and is there potential for contamination? Wastewater is discharged directly to marine environment. Water quality monitoring is undertaken

NB: This section on intake/outflow pipes is only applicable to pump-ashore flow through systems.

Number of Intake Pipes: 15 Number of Outflow Pipes: 9

Where is the wastewater discharged to? Intertidal Zone

What is the region like around the discharge pipes?

Ulva growth at outflow regions - act as a nutrient sink.

General comments on Ponds/Discharge areas located on the farm

Settlement pond is lined with natural clay to prevent seepage. Settlement pond is designed to continually release water through three outflow pipes out to sea across the rocky intertidal zone.

Minimal difference between water quality results and Ulva presence from east farm (water treatment) to west farm (no water treatment).

Pipes from tanks and outlet pipes are screened to prevent stock escape.

Intake pipes located 180-220m offshore in 6-8m of water - no evidence of significant scouring.

Surveys aren't all that bad

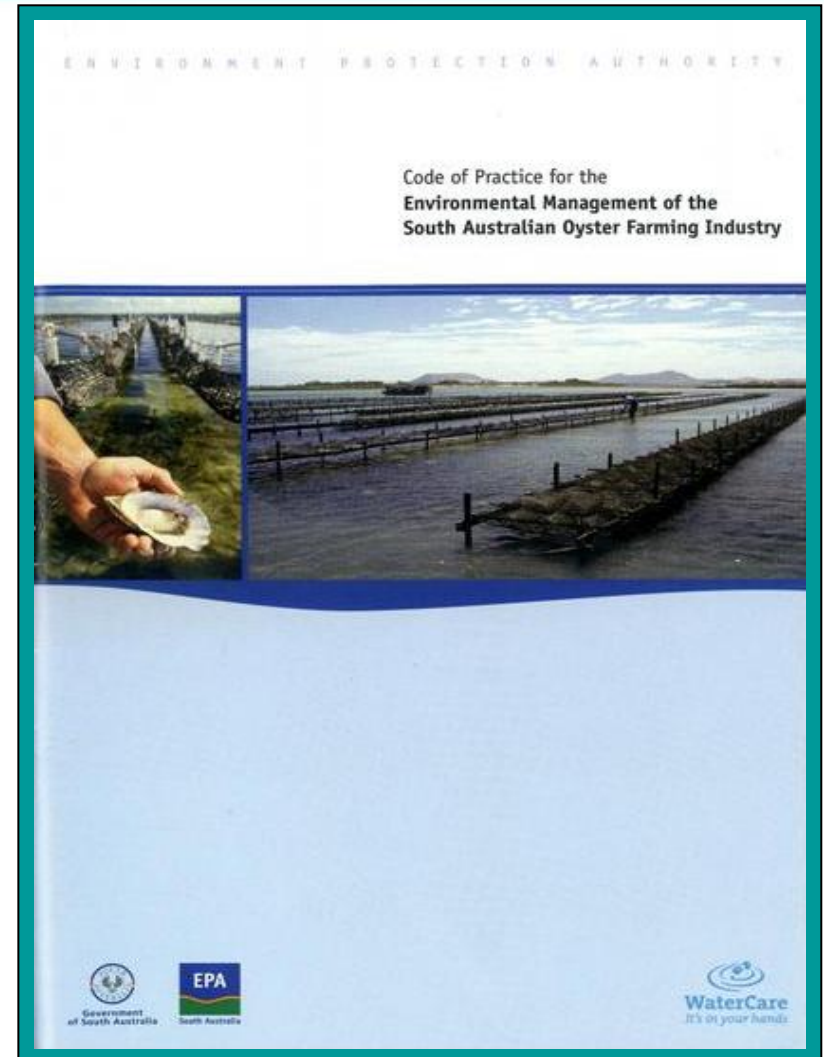


Future Visits – Rough timetable

Region	Time
Far West Coast (Smoky, Streaky, Ceduna)	Late September / October
Yorke Peninsula	November
Kangaroo Island	February
Cowell	March/April
Coffin Bay	January or May

Oysters Code of Practice

- Sea-based operations
 - (racks and longlines)
 - Intertidal and subtidal
- Landbased support facilities
- Landbased hatcheries
- Due for updating
- Awaiting review of Water Quality Policy
- Mid 2012



Waste Oyster Baskets – Update

- PIRSA EMP Question 2009/10
- Interest
 - 40% yes
 - 20% no
 - 40% did not respond
- Current method of disposal
 - Majority stockpiled
 - Dump
- Cost a big factor
- Work with industry to address bay/regional issues
- Look at other industries who use similar plastics
 - who can we learn from?
- Obtain funding to look at various options
- Cost-benefit analysis
- Possible Peninsula (rolling bay-bay) benefits
- On-going!

A close-up photograph of a white platter filled with approximately 12 oysters. The oysters are arranged in a circular pattern, with their dark, textured shells and glistening, light-colored meat visible. In the center of the platter, three bright yellow lemon wedges are placed. Overlaid on the center of the image is the text "That's it Thankyou" in a bold, black, sans-serif font. The background shows a portion of a map with red and blue lines.

**That's it
Thankyou**