

**Submission to Legislative Council inquiry into salmon Farming.
Submitted by Trish Baily, [REDACTED]**

Date: Nov 1, 2010.

Request - I request to appear before the committee to further discuss aspects of my submission.

**Attachments: 1 Tassal water issues - email correspondence 2018, 2019.
2 Salmon escapes Port Arthur 2018.
3 Tassal water questions Sept. 2018.**

As a member of the Tasman Peninsula Community I welcome this opportunity to submit my concerns on the Salmon Industry. I was one of the many people who submitted in front of the MFPRP in May of 2018. My submission was given on May10, 2018 - and that night Hobart and Storm Bay was hit by a massive Storm that left a Huon Aquaculture Pen aground, fish escaped and Hobart under catastrophic flooding. I was disturbed that 2 members of the Panel later resigned, and yet reasons for the resignations were not made clear. With permission being granted for the industry to move out into Storm Bay and subsequent massive increase in Salmon Farming activity - I felt that most submissions to the MFPRP had been ignored. My submission on May 10, 2018 which I have copied and attached below is still as valid as it was then - so there is no need to rewrite a submission. I will highlight issues in red that I have updated or require further comment. My concerns are the same. The lack of public consultation with the industry is a disgrace. The collusion between the Aquaculture Industry and the government and its departments and lack of transparency all indicate that this is an industry supported by government.

Please read my submission from May 2018 and beside it my comments in red, and also find attachments of dialogue with Tassal and DPIPWE regarding fish escapes and fresh water access issues. I am adding photos taken recently to back up some of my claims.

Submission to MFPRP - May 10, 2018.

Thank you for allowing me to submit my opinions and questions today.

Firstly -While this submission is relating to TASSAL's WoW (West of Wedge Island) proposed expansion the other proposed expansions of salmon farms in the Storm Bay / Bruny Bioregion should not be considered in isolation. The entire area is ecologically important and possesses significant biological diversity within a Tasmanian, national and global context.

Tasmania is promoting itself internationally as a tourist destination and an environmentally responsible location. The presence of Salmon farms in Tasmanian waters and in 2 cases adjacent to World Heritage listed locations (Macquarie Harbour & Port Arthur) - is giving the state a negative image in terms of how we care for our environment both marine and terrestrial.

I am Tasmanian and now live on the Tasman Peninsula and 14 years ago chose to purchase land near Roaring Beach that is covenanted and listed as Protected Areas on Private Land. My husband and I were proud to be able to purchase land that we could protect - where we could care for land, and its valuable vegetation and wildlife. We were impressed by others who live in the area for the way they value the land and the beauty of the Roaring Beach valley and the Tasman Peninsula as a whole.

I am part of a Roaring Beach Coast Care Group - who are working to keep the Roaring Beach area pristine and maintain the habitat for endangered Hooded Plovers, a clean place for our Wedgetailed Eagles and Sea Eagles to soar. There is an immense sense of freedom and spiritual strengthening to walk Roaring Beach - to rush into the clean water any day of the year, to look out at the wildness of Storm Bay and to watch Gannets work behind the break for fish, to see a flock of Mutton birds or to snorkel the rocky shorelines on a rare calm day. We did not

buy covenanted land by Roaring Beach or choose to live on the Peninsula to be subjected to the sights of industrialisation of Storm Bay, Port Arthur or Parsons Bay. Or to paddle off White Beach or walk along the coast and hear the constant intrusive noise of activity at the Salmon Farms at Cresses Mistake. Nor do I put my volunteer efforts into caring for the coastline when I may now have to deal with diminishing water quality, NIA Algal blooms, increased garbage washing up, and wildlife habitats being affected.

Many issues that concern me, such as lack of social licence, the lack of a bond to cover an environmental disaster, and lack of transparency and good open community dialogues, will be dealt with in other submissions. I want to focus on the issues relating to a possible marine disaster and the critical issue of fresh water access. Lack of baseline data provided leaves little confidence that the science we are being fed has any relevance at all.

I am a geographer. I lived and worked overseas in the Caribbean for over 25 years. I am a sailor and have roamed much of the North and South Atlantic Oceans and ran an "ecosailing" (my term) charter boat in the British Virgin Islands for 20 years. I have worked on scallop boats in the Bass straits and with cray fishermen off Bicheno. I have a strong connection to marine issues which is why I am raising my concerns that TASSAL's operational plans for WoW are not sufficient to avoid a marine disaster.

In January (2018) TASSAL replied to some of my queries on **operating in offshore conditions**;

Their replies raised several concerns that have not been answered in relation to the proposed WoW expansion.

It is my understanding that for the safety of TASSAL employees and vessels that during extended periods of rough weather the WoW farm would be set up to operate remotely, without people or vessels, other than a feeding barge that would be permanently moored at the site.

In such a situation if a problem is remotely observed with the pen's structural integrity or infrastructure then how will TASSAL physically access the site to fix the issue given the weather conditions?

A disintegrating pen for example could result in an environmental disaster and indeed, even if access were possible, it is doubtful whether repairs could be effected until there was moderation in the weather. My comment. Mr Campbell who sits on the MFPRP - was disdainful of these comments, intimidated me, was not respectful of my concerns and questioned my ability to predict a marine disaster such as a pen breaking loose. I had examples for him of pens breaking up, however that night - Storm Bay & Hobart were subjected to a massive storm and catastrophic flooding. A HAQ pen washed ashore, fish escaped. So my predictions were correct - as in less than 24 hours of giving my report - there was an environmental disaster. Despite those warnings from nature and ongoing issues of marine debris the expansion out into Storm Bay has been given the go ahead by government.

In relation to remote feeding at WoW I suspect that prolonged large swells, high winds and increasing wave action will result in more turbid water, and more fluvial movement. I would expect this to affect the efficiency in the supply of fish feed to the fish and may lead to increased distribution of unused fish feed into the water column. - therefore causing more nutrient loading

How often would the fish feed need to be added to the remote feeding vessel and how would the feeder boat and the pens access more feed in the event of a storm?

Failure of the feed delivery system or inability to supply feed to the vessel or a disintegrating pen could lead to huge fish mortality.

I cannot find information of how TASSAL plan to deal with such possibilities. - and now in Nov 2019 I still remain disturbed by Tassal's actions of "adaptive management" where they are now "trailing" a pen in the WOW location. One would expect that before a pen is placed in such an open location that it would have been designed to withstand the worst of storms. In their EIA for the WOW proposal we were assured that pens would not be visible from the beach at Roaring Beach. In October this year I walked down to Roaring Beach and could clearly see the pen from the shoreline. Photo at end of Document.

I have concerns on how the conditions of the pens will be assessed as, unlike oceangoing vessels, I am unaware of any Australian or International standards in existence to assess the design and structural integrity of such offshore pens.

Commercial vessels TASSAL use are maintained in port, have compulsory in water surveys every year and out of water surveys every 5 years. I have failed to find requirements for compulsory independent surveys for fish farm pens or any government regulations on a port (Tasports), state (Marine and Safety Tasmania) or national (AMSA) level that would ensure that the public knows the pens are being inspected and comply with regulatory guidelines if they require repairs or need to be taken out of service. There has since been a suggestion by some that the pens be considered "autonomous craft" - and that would then require them to comply with AMSA regulations, and be subjected to surveys.

My other concern relates to the equipment used. Whether it is nets, lines, buoys etc, most of the equipment (and constituent part of pens) is "plastic" produced from petrochemicals. There is increasing concern world wide on the effects of plastic pollution in the oceans and the breakdown of these to micro plastics and the effects this is having on marine health throughout every level of the food chain. I believe the industry must show research to assess that the sea action and/or any high pressure ablation process for cleaning debris from pens does not create micro levels of plastics off the equipment?? In addition there should not be a need to clean up plastic debris washing ashore from the marine farms. It is time the industry looks for a solution that does not involve contributing to the oceanic plastic pollution problem. Anecdotally - sometime in October at Port Arthur - Tassal apparently ablated their pens (in situ). According to a fisherman who observed this the pens that had been "in fallow" for several months were laden with marine growth. The ablation process left the water filthy according to the observer and may well be part of what has contributed recently to the massive algal problem at Port Arthur.

Regarding fresh water usage.

Water accessibility is becoming a critical and much discussed issue in Tasmania. Water extraction and regulation through dams and storages impacts on river and stream conditions through reducing and changing the frequency of natural flows, which are essential for maintaining aquatic ecosystems - including salt marshes, wetlands and estuarine health.

The public on the Peninsula are increasingly concerned about how TASSAL will access their requirement for fresh water for the bathing of fish without affecting the public's source or access to fresh water.

It appears that TASSAL have fresh water access problems. The Hirst dam TASSAL use as part of their current water supply on the Peninsula is totally empty. (at end of document photo of Hirst dam taken Nov, 2019) There are rumours that TASSAL'S R.O. (reverse Osmosis) plant at

Port Arthur is often out of operation. Peninsula residents are disturbed that water was transported to Okehampton Bay from a source or sources on the Peninsula.

What are the plans for TASSAL in the future to address their requirements for fresh water? The water issue at Okehampton Bay and on the Peninsula raises serious questions about lack of planning for water usage. With the proposed expansions into Storm Bay then the future requirement for fresh water will be massive. Where will this water be accessed.?

TASSAL know the quantity of water required for bathing a pen of fish. TASSAL should be able to extrapolate the quantity of water required at its operations on a weekly, monthly and long term basis. The fact that TASSAL appear to be having critical water access issues at their existing operations across the State indicates that they have failed in forward planning for water usage. **Now Nov 2019: Refer to attachment 1 on dialogue with Tassal on fresh water usage. They have consistently refused to indicate where they are accessing their water and the quantities they will require for the summer bathing period (against AGD). The issues surrounding their access to fresh water at Okehampton - on the drought affected east Coast further indicates the severity of the fresh water problems. With increase in the biomass of salmon with expansions granted then the requirements for fresh water will increase - where is this water going to be accessed? Tassal have indicated that they will be accessing fresh water from land based sources for their well boat (for bathing of fish) and not from the desalinisation plant that is on the boat. They have indicated this is for cost reasons. In addition when they do use their on board De Sal plant then there are other environmental issues that should be addressed** TASSAL are using R.O plants at some operations. I believe that use of these have not been subjected to an EIA to assess the effects of hyper saline and thermal pollution.

R.O. plants are costly, and have a huge carbon footprint attached to the production of water. Associated with this are concerns by the public of TASSAL's power usage at their operations and how they will deal with possible increased power demands should TASSAL be given permission to expand out to WoW.

Like many others I am disturbed that there is no facility for independent review or oversight of the existing pens or proposed expansions.

Unless an independent inquiry processes is set up to govern the Salmonoid industry in Tasmania it will be difficult for the public to have confidence in assertions that the industry is sustainable.

This is why I agree with those supporting a moratorium on expansion of marine farming and a moratorium on the reopening of existing leases in the Storm Bay / Bruny Bio Region and Tasmania in general.

A moratorium should be effective until an independent sustainable marine farm development plan is developed for the Bruny Island and Storm Bay Bioregion in consultation with, and approved by, all relevant stakeholders including the community.

This must form part of a broader plan for the use, development and management of resources across the Storm Bay / Bruny Bio region and across the State.

Thank you . End of Submission to MFPRP May 10, 2018.

Further comments on water: written Nov 2019.

The public on the Peninsula and other communities are increasingly concerned where Tassal is accessing fresh water for the bathing of fish without affecting the public's source or access to fresh water.

It appears that TASSAL have fresh water access problems. The Hirst dam, on private property and expanded in 2016 for Tassal's use was empty last summer and now at beginning of summer is low. Since the expansion of the dam Stinking Creek has not flushed out. There is no trans-

parency about where Tassal are accessing their water. TASSAL have a RO (reverse osmosis) plant at Port Arthur. The Tasman Council gave approval for the plant installation yet did not subject it to a rigid EIA. Environmental concerns related to RO plants include - hyper saline and thermal pollution, entrapment of juvenile fish, heavy metal pollution. I am concerned neither the council or the EPA do not subject RO plants to rigid EIA's. The council cannot maintain that what goes into Port Arthur Bay from the RO plant is not their concern. There needs to be much better coordination between the EPA and councils on planning aspects related to developments that are commentarial and affect public water and public land .

What are the plans for TASSAL in the future to address their requirements for fresh water? The water issue at Okehampton Bay and on the Peninsula raises serious questions about lack of planning for water usage. Now with expansion of production into Storm Bay then the future requirement for fresh water will be massive. Where will this water be accessed.?

TASSAL know the quantity of water required for bathing a pen of fish. TASSAL should be able to extrapolate the quantity of water required at its operations on a weekly, monthly and long term basis. The fact that TASSAL appear to be having critical water access issues at their existing operations across the State indicates that they have failed in forward planning for water usage and are possibly putting communities at risk in terms of water security. The same issues apply to Huon Aquaculture.

Yet despite repeated questions on quantities of water they will require this coming summer the answers are not given - (please refer to attachments regarding email conversations in 2018 & 2019 with Tassal and DPIPW requesting info on their water usage.). Now Tassal have their new well boat and Huon will soon have theirs. They have announced they will be accessing fresh water from land based sources for bathing of fish on the well boat. While Tassal indicate they can bathe fish more efficiently on the well boat - there are still questions regarding access to fresh water and the quantities of fresh water required. With expansion of the biomass of Salmon permitted then there are more salmon to bathe so I do not see a massive drop if any in fresh water requirement.

The questions raised for all communities to the companies are:

#Where will the freshwater for the well boats and other bathing operations be sourced from?

will water be accessed from one area and transported for bathing to another area?

#Are there any agreements in place with Tas Water to access water from Tas Water. If so what quantities and what locations will Tas Water be accessed from.

What volumes from each source - name source - location dam name or river or Bore.

what bases will still be bathing fish in pens?

Re RO plant on the Well Boats

What is the salinity of the desalination brine, how will this be managed/disposed of, and what are the potential impacts.

#What is the quality of effluent to be discharged following bathing, and how will this be managed? Provision should be given of the Environmental Management Plan (currently being finalised with the EPA), along with monitoring data confirming the quality of the discharged water.

#What types and quantities of chemicals will be used, including disinfectants (e.g. Virkon) and ozone, and how might these impact local waterways?

Debris:-In regards to the increasing marine debris issue emanating from the fish farms - it is a simple stock taking calculation (just as with water requirements) that any company can easily undertake. The company know what materials are in the pen, they know what breaks of goes missing, the company knows what is required to replace the missing part, therefore its easy to see they can come up with an end figure with what is missing - and this should be reported.

What we don't know is if the ablations processes for cleaning the pens is contributing to micro-plastic pollution. That - unlike larger debris items may be more difficult to assess - and indicates the need to assess the possible contribution to micro plastic pollution coming from the Fish farm pens.

Transparency

Transparency, reporting and accountability for disease outbreaks, fish escapes and fish mortalities must be given and disclosed immediately. See Attachment#2 - Salmon escapes Port Arthur - that gives evidence of lack of good reporting and lack of DPIPWE action to assess reports.

Solutions:

To enable better independent review the MFPRP should be disbanded, and reformed with increased representation by those not aligned with fin fish farming, such as conservation groups, recreational fishers, commercial fishermen (native species), and independent scientists..

The panel should be required to produce statements of reasons and response to public representation and to make this public.

The issue of social licence to operate should be firmly embedded in the Act.

Bonds such as apply to mining companies should be mandatory to ensure companies maintain adequate funds to undertake any remediation work. Again assessment of Environmental damage must be done by an independent assessor.

The Marine Farm Planning Act be amended to constrain the minister's powers to overturn decision of the panel.

Better assessment be in place to ensure that endangered and threatened species are not compromised by the Salmon farming activities.

That a moratorium be placed on the issuance of new leases and opening up of existing leases until a full independent inquiry has been made.

That communities be enabled to run full Ecosystem Services studies and that those studies be made public and reviewed before further expansions are permitted.

Transparency and mandatory reporting on fish escapes, outbreaks of disease, fish mortalities, loss of equipment.

Conclusion:

The Tasmanian Atlantic Salmon Farming operators cannot continue to blame escapes, fish mortalities, disease outbreaks, or breaking up of equipment to unusual climatic events or out of season events. Such continual excuses indicate that the operations are not being managed efficiently. These farming operations are in public waters. The continued debris issues, outbreaks of disease, mortalities, and escapes in the Tasmanian Salmonoid industry poses a serious threat to the sustainability of Tasmania's Native Fisheries and the environmental integrity of our waters as well as causing public distress by destruction of public amenity.

Please see photos below - Thank you for your time and attention to my concerns. M.P Baily.

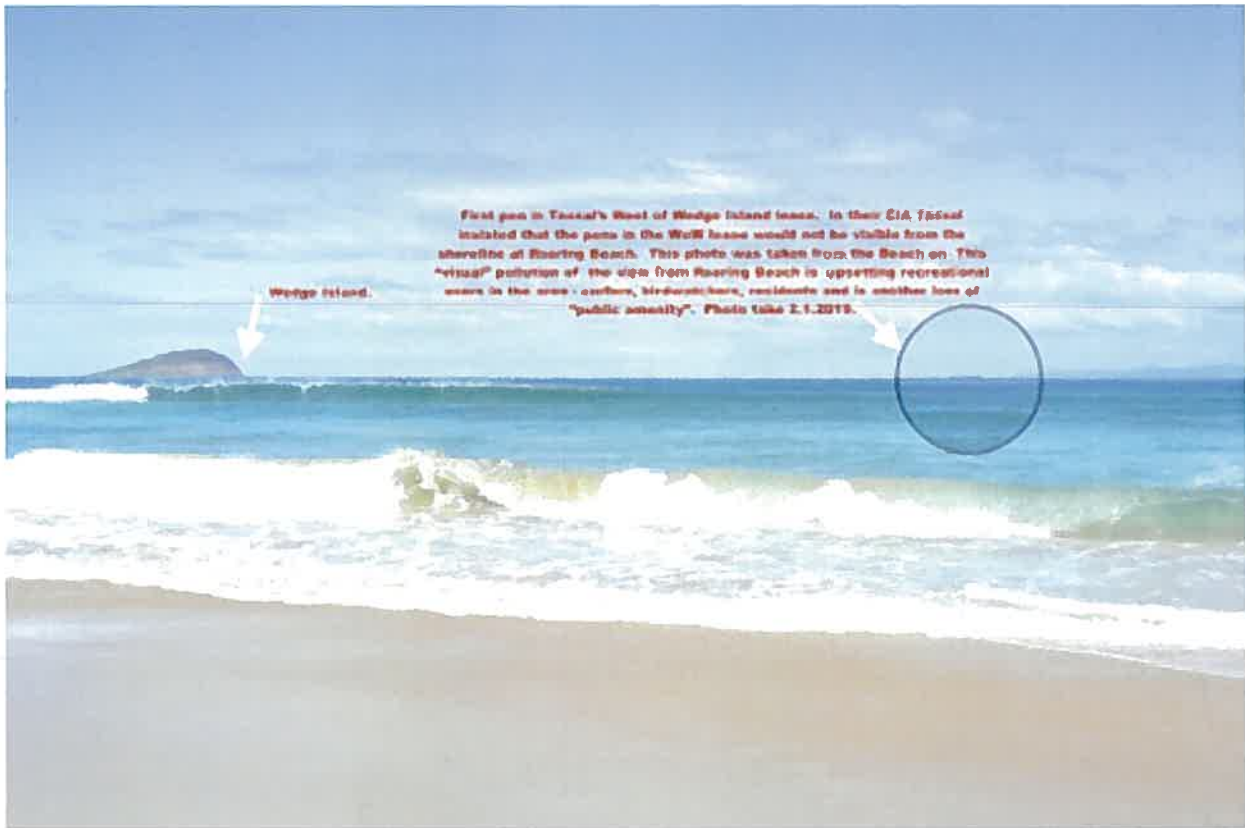


First Dam near Nubeena, Tas. Peninsula. Access for some of Tassal's Fresh water.

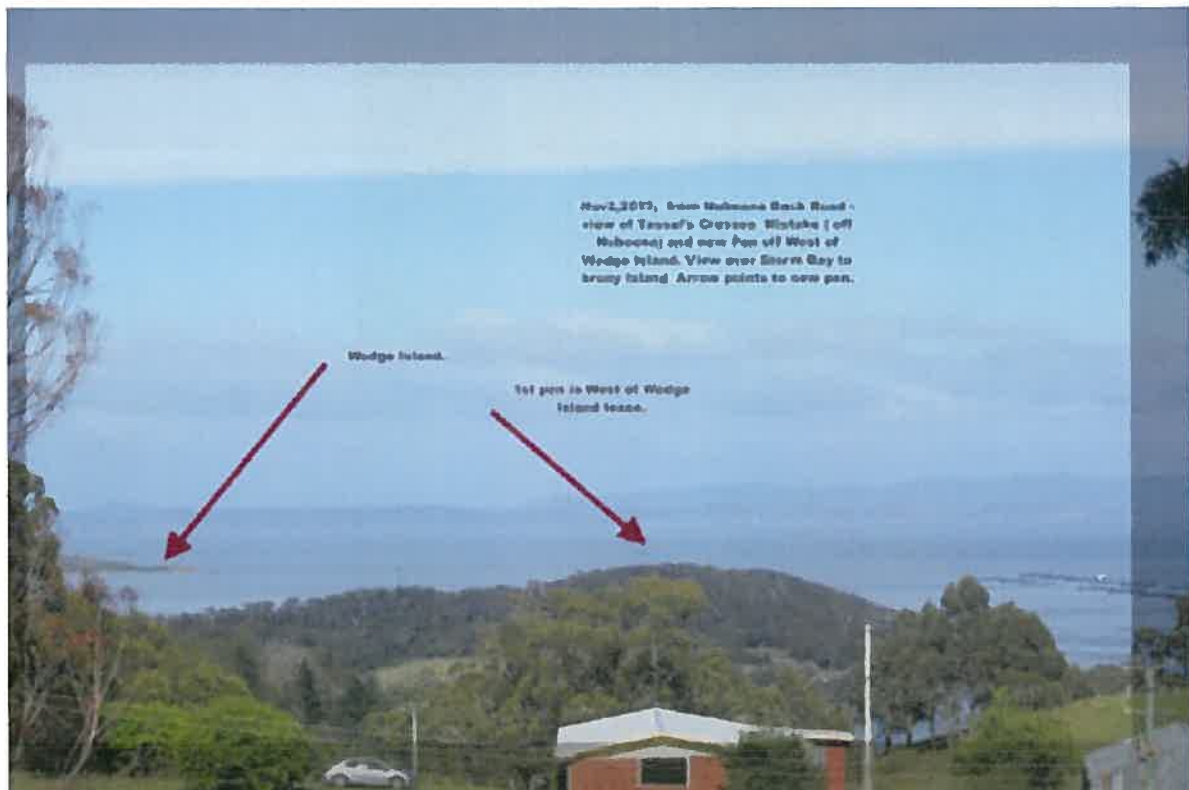


Nutrient Indicator Algae, Badger Creek. Tassal Base Nubeena.

Nutrient Indicator Algae, Badger Creek near Tassal Nubeena Base.



Above: first pen at West of Wedge Tassal location visible from Roaring Beach.
 Below: Taken from Nubeena Back Road. Crosses Mistake and new pen off WOW location.



Algal "roils" on White Beach, Nubeena, 1/18/18. Causing stress to resident who regularly walk the beach, swim and access boat ramp..



7/1/19 Port Arthur, Tassal Pens in Long Bay. World Heritage site and gateway to 3 Capes Track - visuals marred by Salmon Pens. Now, Nov2019 - area heavily impacted by Nutrient Indicator Algal Growth. As a friend commented —“ I used to catch lots of flathead in this area and now all I get on my hook is algae”

Below: Tassal Base Port Arthru: note that green in water is Nutrient Indicator Algal Growth. photo 7/1/19



Attachment 1. Copies of emails and replies sent to Tassal and DPIPW in 2018 and 2019 to address issues relating to fresh water usage.

Email sent to Tassal October 15, 2019 re anticipated water usage over the summer. Their reply does not answer the questions. The introduction of the well boat may not “significantly reduce water usage” - Because the companies have upped their production.

October 15, 2019.

To TASSAL:

With summer fast approaching the issue of fresh water access for your operations at Creeses Mistake, Port Arthur, Badger Creek and West Of Wedge Island are again a concern for communities. As you are aware, water has been in short supply on the Tasman Peninsula, and TPMP and community members are concerned about potential loss of access to fresh water and impacts over extraction may have on our surface and groundwater supplies, and the maintenance of environmental flow.

We are requesting Tassal to please provide information on your projected freshwater requirements for your leases at Nubeena, Port Arthur and West of Wedge, both for the immediate 6 month summer period (November - April) as well as for the full grow out period.

For each of these operational areas, we would like to know:

1. The maximum expected volume of fresh water you anticipate to use for the 6 month summer period.
2. Where water for each location is sourced from. - Please list dams and location, or dam name, and whether these are Tassal owned or leased or water rights used. Location and volume of water accessed from bores.
4. Expected volume of water to be produced at your RO plant at Port Arthur.
5. When your new well boat arrives, can you please clarify if water used for bathing will be sourced from the onboard RO plant or from other freshwater supplies?

If other freshwater supplies, please list the location and volumes of these other sources.

6. In relation to your new well boat - While servicing a location - will the well boat be anchored, secured to a dock, or using an installed Mooring buoy?

Tassal's reply

Oct 18, 2019, 4:54 PM (19 hours ago) From Depha

Good afternoon Trish,

* We use freshwater for bathing our fish in our marine farming operations.

*We also use fresh water in our hatcheries and in our fish processing facilities.

*Across all areas of our operations, we work actively to continually reduce our freshwater use.

*We utilise RO's to supplement freshwater at some of our sites, e.g. Okehampton and Port Arthur.

*Like agricultural farmers we store and access freshwater from dams on our land with the appropriate water licenses and permits for our farming operations. We also access water from dams owned by local landholders through private lease agreements.

*The introduction of the Well boat Aqua Spa will significantly reduce fresh water requirements.

*ANCHORING: The well boat when operating on leases will be secured to the pen it is transacting and moorings in the zone area.

WATER QUESTIONS 2018. Put to EPA .

Note I have added my comments in red

----- Forwarded message -----

From: Churchill, Mark (EPA) <Mark.Churchill@epa.tas.gov.au>

Date: Fri, Feb 8, 2019 at 3:45 PM

Subject: RE: Fish pens

To: Trish Baily [REDACTED]

Dear Ms Baily,

I have investigated the concerns that you raised with EPA Tasmania on 3 February 2019.

Tassal have provided EPA with some responses to the questions that you raised. Please see the company's responses below in [Green](#)

My understanding is that it takes between 2 - 4 ML of fresh water per bathing (Tassal info).
[Water volume required is dependent on the biomass of the pen, this changes with fish growth](#)

At Cresses Mistake the water is probably being accessed from the Hirst Dam - a huge dam put in place only a couple of years ago. [Hirst's dam has been in place since the 1940's, we have a long term agreement in place with Stuart Hirst](#)

[MPB comment 25/10/19 - The Hirst dam has been in place a long time but was expanded to its current massive size in 2016. Since then Stinking Creek that flows from the dam catchment to Parsons Bay has not flushed.](#)

I think the water is then pumped to their Badger Creek Dam above their operations but am not sure on that. (Badger Creek Dam banks currently infested with Spanish Heath!!) [the Spanish heath has been treated, Pakana will return in August for more weed mitigation](#)

[MPB comment 25/10/19 - The Spanish Heath was chemically treated on the banks of the dam sometime early winter 2019 I believe.](#)

*Are any chemicals - chlorine, Hydrogen peroxide or any other chemical added to the water as part of the bathing process. [Only fresh water](#)

*Is the fresh water tested for pollutants coming from agricultural runoff prior to bathing. [Water quality is paramount to the welfare of our fish and optimal outcomes from bathing. We test water regularly for a number of parameters, including pollutants](#)

*As this fresh water is highly sediment laden that will not have a good effect on near shore reefs. [Our fresh water is not heavily laden with sediment as this would impact on our fishes gills, we regularly monitor sediment in our water quality monitoring program](#)

MPB comment: Badger Creek Dam always appears to be very muddy looking - It should be independently tested for sediment loading.

*As this area is currently experiencing heavy filamentous algal blooms that are smothering surrounding seaweed and shoreline ecosystem - this bathing could further exacerbate the problem of high nutrient levels in surrounding areas. As the liner is released slowly the freshwater is released into the salt water, mixing occurring quickly due to dilution and being an exposed site with good current flow is dispersed rapidly. We measure salinity on our leases daily and have never recorded a change in salinity on the lease as a result of fresh water bathing operations. Hence there is no possibility of fresh water impacting on subtidal and intertidal biological communities. Intertidal macroalgae is prevalent this time of year due to tidal changes and temperature of the water. We expect die back to start soon as they are more exposed to longer daylight hours vulnerable to exposure out of water and desiccation.

MPB comment - this was written in Feb 2019. Algal blooms continued in the area of White Beach, and along the shores near the Tassal Base. Independent Scientist Christine Coughanowr has been testing and commenting on the algal blooms at Port Arthur and Cresses Mistake/Nubeena area. As of Nov 1 2019, there are massive Algal blooms in Long Bay Port Arthur and a comment made to me yesterday by a rec. fisher was - " I used to catch fatties in that area and now all I catch is algae on my hook!!!".

*As the bathing water is dumped into the ocean after a bathing process is there any bio security issue surrounding the spread of AGD? AGD is naturally occurring in the marine environment, the fish that are bathed on the lease are from the same area, hence no biosecurity issue.

MPB comment: I would dispute this - while the organism that causes AGD is probably present naturally in the the sea it seems that once in an area where there is factory production that the amoebae divide exponentially so clinical disease can develop quickly and is creating huge problems in the industry in Tasmania.

This photo is alarming - . It is from the release of fresh water from the liners at a bath operation. The wind is blowing from the SW hence the dispersal that direction

MPB comment: That does not answer the questions - why is the water so milky?

As I advised on 7 February 2019, please contact Bill Shackcloth, Section Head (Water and Dam Administration) on 6165 3001 or bill.shackcloth@dpipwe.tas.gov.au to discuss your concerns in relation to freshwater resource management issues.

I hope that you find this information useful and that it addresses your concerns.



Copies of emails and replies sent to DPIPWE, and Tassal regarding Salmon Escape, Port Arthur, November 30, 2018. My additional comments are in RED

From: Salmon Regulation (EPA) <DPIPWEsalmonreg@connect.tas.gov.au>
Sent: Wednesday, December 5, 2018 1:22 AM
To: [REDACTED]
Subject: Fish escape at Tassal's Port Arthur farm

Hi Trish,

I can confirm that Tassal has not reported to EPA Tasmania or Marine Farming Branch DPIPWE, in accordance with environmental licence condition G4(6), any significant incidences of fish escapes from marine farming Lease No. 55 at Long Bay, Port Arthur.

Please note that, pursuant to environmental licence condition G4(6), a significant escape is defined as any loss of licensed species in excess of 500 individuals at any one time. I have attached the environmental licence for your reference.

Regards,
Mark Churchill
Senior Environmental Officer - Salmon Environmental Management Section

EPA Tasmania

Department of Primary Industries, Parks, Water and Environment

MPB Comment: When I initially called DPIPWE to report rumours of the fish escapes - I spoke to someone regarding it and was told that Tassal had been kind enough to report an escape of under 500 fish although they are not required to report escapes of less than 500 fish. I note in the email Mark Churchill said Tassal had not reported the incident. When I suggested that reports from fishermen(who were having a blast catching big Salmon) indicated there were way more than 500 fish escaped. whoever I spoke to at DPIPWE accused me of scaremongering and not speaking with any authority. My reply was that I was only reporting what fishermen were saying and that I suggested that DPIPWE should go to Port Arthur and assess the situation. I was informed that DPIPWE had no time or resources to do that - In a later conversation with DPIPWE I was informed that Tassal would report to DPIPWE if they felt more than 499 fish had escaped when they harvested the pen (which I believe happened in January - 2 months after the escape. I subsequently called DPIPWE early in 2019 and asked if Tassal had confirmed whether or not they had lost more than 499 fish and was told that Tassal had reported that they had not lost a significant - reportable- number of fish. So this all amounts of lack of transparency and DPIPWE protecting Tassal.

From Trish Baily - 12/5/2018. - to friends and interested parties.

I spoke today with Mark Churchill at EPA regarding the reports of Salmon escape at TASSAL's Port Arthur lease. Below is his reply.

What is significant is that the environmental licence was issued on 21/8/2018 and is valid until 30 November, 2018!!! So we need to find someone in Pt Arthur area to check out if there are salmon still in the pens there. The escape was meant to have occurred on November 30th - the day the licence ended.

I wrote to Depha at TASSAL today asking if the rumours were valid or not and how many fish they estimated escaped. I have not had a reply. I had a report yesterday from someone at Port Arthur on a boat that Salmon were hanging out under the dock!!!
Just keeping you in the loop. Cheers - Trish.

Marjorie (Trish) Baily,

Fish escape Nov 30th, 2018 Port Arthur. email dialogue with Tassal

From: Trish Baily [REDACTED]
Sent: Wednesday, 5 December 2018 12:42 PM
To: Depha Miedecke <Depha.Miedecke@tassal.com.au>
Subject: Port Arthur Salmon Escape questions

Hi Depha

We have heard that on Friday November 30th- or around that date - salmon escaped from your Long Bay, Port Arthur pens.

Could you please confirm this with the following information:

*How many Salmon escaped?

*Was the escape reported to EPA or Marine Farming Branch as required?

*What was the cause of the escape?

*What efforts are TASSAL taking to recover the escaped salmon?

I believe you indicated that TASSAL will be moving fish out of the Port Arthur pens soon to give a fallow period.

*When will the pens become empty?

*How long will the fallow period be?

In addition there is currently a lot of filamentous Algae in both Port Arthur and around your leases at Badger Creek and Cresses Mistake - What is TASSAL attributing this to.?

Thanks Depha - I look forward to your reply. Regards:

Marjorie (Trish) Baily,

From: Depha Miedecke <Depha.Miedecke@tassal.com.au>
Sent: Wednesday, December 5, 2018 5:31 PM
To: Trish Baily
Subject: RE: Port Arthur Salmon Escape questions

Good morning Trish,

Thanks for reaching out for information

We have had a small number of fish escape from one of our Port Arthur pens, the number of fish is assessed in the hundreds.

Marine farming Branch have been informed, the fish escaped through a hole in the base of the net during a bath operation.

Fish are being caught by fisherman in the area and seals are also assisting.

As discussed previously our Port Arthur fish are being harvested, this started in October and planned for completion in January.

Our current plan is to input the 2019 smolt to Pot Arthur in July/August 2019.

In regards to your query on filamentous algae, intertidal and subtidal macroalgal assemblages tend to flourish in nutrient rich waters.

In Tasmania's south east – nutrient rich waters from the southern ocean flow into our coastal waters during winter – and there is usually considerable macroalgal growth during this period.

We often see this growth manifested in sheltered bays throughout south east Tasmania.

Around this time of year, macroalgal growth is more conspicuous than at other times of the year. This is because the lowest low tides are now occurring during daylight hours – whereas during the winter months, the lowest low tides occur during the earliest morning hours when it is dark.

Algae growth near the shore is likely effect of both naturally occurring nutrients (from the southern ocean) as well as from other sources (land run off/farming including salmon).

We have also observed similar algal assemblages in south east Tasmania where no fish farms occur.

Now that water temperatures are warming, day-length is getting longer, and the lowest low tides occur during daylight hours – we would expect a significant degree of algal “die-off” – and this is starting to occur now. Algal die-off occurs in most coastal waters during summer.

Cheers Depha

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Water conversation with Tassal Sept 7 2018.

From: Depha Miedecke <Depha.Miedecke@tassal.com.au>
Sent: Friday, September 7, 2018 3:38 AM
To: [REDACTED]
Cc: Barbara McGregor
Subject: Water questions

Hi Trish,

Black - original ? Red - Trish replies & further queries Green - Depha - TASSAL reply
Please see below in green in response to your queries, some information you have asked is commercial in confidence.

Hence cannot be specific on some of the queries. - Depha

With summer around the corner increasing need for TASSAL to Bathe Salmon in Fresh water to prevent AMG your access to fresh water supplies will be critical. Could you please give the following information.

For each Location of your pens:

Macquarie Harbour, Port Arthur, Cresses Mistake, Channel Zone, Southern Zone -

Please indicate

*The source of your fresh water access - dam on private land, dammed river, spring etc. Dams on private land. Please list for each location - for eg Port Arthur - if the source is a Dam then where is dam located. if its Dam and RO then please state.

*Volume if any produced by De Sal (RO) plant. Dependent on bathing requirements and also dam water storage levels that are also used. What is the maximum available output per day or(when required) from your plant at Port Arthur and at Okehampton Bay? I realize its dependent on bathing requirements and water availability - but that is the issue - When you have high bathing requirements as I believe happens mostly in summer months with increased water temps that lead to outbreaks of AGD - then how have you pre-assessed that you will have availability of water in times of emergency? I realize you are working to control the outbreaks of AGD but its unlikely this will be in effect this coming summer - so the public and on land agriculture sector will want to be assured that vital water sources are not being depleted.

*Location of dams and their maximum capacity. Have various dams near each of our operations on our own land or leased land. Except MH we do not bathe there due to the freshwater influence in the harbour Can you please give the ML capacity of the dams and their location.

*Any bore water access. We have used low amounts of bore water in the past tom ix with dam water, but have not for over four years now

*Are EIS's conducted in watershed area of new dams (e.g. Hirst dam at Tas Peninsula). Any dam development goes through DPIPWE review process which includes environmental assessment, Hirst is one of those dams. A committee for dam construction reviews the dam application that includes environmental requirements.

*Other sources of fresh water - where it is accessed for each location. So for example if you purchased water and transport it to any location please indicate where this water is purchased. WE understand that water was transported from Tas. Peninsula to Okehampton earlier this year? Also there was speculation that TASSAL were transporting water in trucks to your Cresses Mistake operation. We don't transport bathing water in trucks. Two liners of water were towed from Nubeena to Okehampton last Summer, this was due to infrastructure maintenance and need to bathe fish. No further transfer of water has occurred since that time. Re the infrastructure maintenance - that is the issue - that your management strategy for sustainable farming should include long term requirements for fresh water. You know you will need to bathe fish - you expect bathing cycles to go up in summer months, you presumably know the biomass of fish you have in each location and presumably must know in a worst case scenario (which may have been case 1st year at Okehampton) the volume of water required on a weekly basis and a long term basis so that you do not have to transport water or access it from a new source. Majority of water comes from various dams that we own or lease from farmers (generally catch flood water close to where it discharges into sea).

*Quantity of Fresh water used per pen bathing. I understand this is around 2ML per Pen??? It is dependent on the size of the fish and the total biomass in the cage this can be anywhere from 0.8 meg to 4.5 meg of water per bath.

*Biomass of Salmon per pen bathing – varies – this varies dependent on size of fish and population

*Where bathing water is disposed. Into the ocean

*From now through to May 2019 - maximum anticipated volume of fresh water for bathing at each location. Please also give maximum weekly anticipated fresh water usage. Dependent on AGD infection, water temperatures, stocking strategy for the year class. As an average we complete between 700 to 800 bathes per year. This number has reduced with our selective breeding program for AGD.

Can you break that down - How many bathe cycles at Port Arthur, Cresses Mistake, Okehampton, and Southern Zone. So please give the volume of water required at each location for expected bathing cycles that would be worst case scenario. Each area has different water storage and water availability capacity.

*How you assess the need for bathing - is it salt water temperature controlled or is it dependent on indications of outbreak of AGD. We perform visual gill checks on a % of our fish regularly which gives us an AGD index, we plan our bathing operations based on these indexes

*Where RO plants are used - how are TASSAL mitigating against entrapment of native fish/spawn in their filtering process. Why does the De Sal water at Port Arthur have such a strong Chlorine smell? Have two RO plants in operation, one at Port Arthur and one in Triabunna. We have fine micron filters that stop entry of fish etc. No Chlorine is added to the RO process. If no chlorine is added to the RO process - then why was there a stench

of chlorine coming from water being pumped into a pen at Port Arthur - that was about 2 months ago??

It is my understanding that Entrapment of fish and spawn is one of the biggest environmental problems associated with RO plants.

In addition can you give the length of your outflow pile -(Hypersaline water) at your 2 plants. And at what depth of water is the outflow and how far is it away from the RO plant?

Tassal is in the process of acquiring a Well boat to perform bathing operations. This will reduce the overall water requirement for bathing by approx.. 50% as we will be able to reuse the water for multiple baths. This will be a great part of reducing your fresh water requirements. Nov 1, 2019 MPB comment: Since arrival of the Well Boat Tassal have now said they will be accessing fresh water for bathing for the well boat from land based sources and not using their RO plant on the boat. Also with increased production of Salmon then the requirement for fresh water will probably not decrease substantially.

