

Making Pathways Management Work in a Regional Context

You have heard from Barrie that the risks are real, we have the tools to reduce the risks, and that our monitoring and incursions history shows the risks are not being sufficiently reduced. What then is required for these risks to be reduced at a regional level in the Top of the South?

Here is my view after working in this area for six years. This is my frank opinion on the current situation and what is required for the future. I think we need four things:

- Confidence in the border
- Stopping risk vectors entering our region undetected and untreated
- Slowing spread of the harmful organisms within the region
- Ceasing to be a source of risk to other regions.

Can we be confident in the border? Not completely, not yet. There are successes, and the good work on ballast water shows what sustained international effort can achieve. The Craft Risk Management Standard is a great step forward, but it is not yet enforceable. The Voyager P showed us that there is no effective inspection regime for hull fouling yet at the border. The scientists tell us that hull fouling is our biggest risk vector. Therefore we can expect new to New Zealand organisms at about the same rate as we have been experiencing until the border regime is tightened.

What are the domestic risk vectors for us and how can they be dealt with?

Marine farming as a risk vector is the easiest for us to be confident about regionally. The sector is organised, and shared self-interest will continue to drive good behaviour. Aquaculture New Zealand has been busy with its environmental management framework, and while we might want to engage about the detail and the implementation, they are to be roundly applauded for sustained and effective efforts.

Equally the oil and gas exploration sector have completely reformed their performance in terms of marine biosecurity. 5 June 2008 we were here debriefing the Ocean Patriot response and things were a mess. Now clean rigs are being handled in Admiralty Bay with good intelligence and management confirming all is fine.

The commercial transport sector is not too complex. The domestic fleet on a regular coastal schedules has only has 15 vessels over 45m and 5 of these are Cook Strait ferries. We know that hulls are kept clean to reduce fuel consumption and it the niche areas are what we should be focusing on.

Recreational vessels present a huge challenge. The Cawthron report by Ollie Florel and Lauren Fletcher currently being considered by your Management Committee gives us the information needed for next steps. They have documented the structure of the risk, the methods and facilities available and some analysis of law. The recreational sector is, however, not organised, not licensed and not concentrated in easily managed locations. Reaching each of the owners of the 4,000 vessel moored in the region is a big task on its own, but we also need to deal with the 2,000 vessels visiting to our marinas and the unknown number that enter the region but never go to a marina. We know that people will take highly fouled vessels around the region and across

Cook Strait. There is no comprehensive inspection regime that would detect such vessels. We do have the infrastructure to remove the risk. We have the slipways and professional boatyards and retail outlets. We just do not have consistent risk reduction behaviour. An effective public campaign will include awareness, incentives, and making it easy to comply. Northland Council staff report that an active enforcement programme with legal bite is the fast track to voluntary compliance. Options include marina berth agreements, RMA rules and consents and binding rules under the Biosecurity Act. Nelson is leading the way regionally with its new berth agreement and biosecurity requirements on mooring consents. All these need further exploration and development.

The Fiordland Clean Vessel Pass standards are setting a very high benchmark. Proposals under the RMA for Auckland for commercial vessels align internal pathway requirements with the Craft Risk Management Standard or international Maritime Organisation guidelines for biofouling at the border. This alignment needs to be worked through in recreational pathways management around NZ to set consistent standards and provide us with a firm basis for engaging with all sectors in each regional.

Within the region, preventing pest spread of what is newly arrived is critical. Recent energetic modelling by Chas Woods showed a significant potential for crop production reduction in mussels in our marine environment from the clubbed tunicate and the fan worm should they spread to Pelorus Sound, and they may already be there. He modelled *Styela* to reduce mussel production by 40% at 500 *Styela* per linear metre, while *Sabella* had about a 15% reduction at the same

level. This did not factor in canopy effects or direct competition effects.

Kate Schimanski, a Cawthron PHD student, has showed that for one fouling organism, *Bugula neritina*, common in Nelson marina, short port times do little to reduce the risk of infection by harmful fouling organisms. Juvenile organisms survive rapid passages well and can mature to reproductive stages. This means that short residencies and frequent short trips can pose a risk. A long stay vessel carrying juveniles can develop reproductive harmful organisms during its stay. I think this means that Nelson City was right to focus on node as well as vector management as its councillors resolved to do in 2014.

So with *Styela* and *Sabella* present in low numbers in Picton and Nelson the conclusion I would reach is that sustaining the current control, or intensifying it in Nelson, to prevent the development of large reproductive populations will be justified. Of course that does not help with potentially harmful organisms that are off the target list. So the innovative ways that Cawthron are developing to keep structures clean of fouling should be further trialled and scaled up while we also look further into the established technologies such as wrapping which has been well developed by Bruce Lines.

Other new developments such as the use of floating docks offer the potential to bring the cost of treatment to the same order of magnitude as the cost of inspection. Xavier Pochon has shown that harmful organisms can be present in slime layers at such a small size that visual inspections would not reveal any risk. If the cost of ensuring a hull of a recreational vessel is truly free of pests is a few hundred dollars, then perhaps treating all new arrivals before they

move around in our region may make sense. Equally, treating vessels before they depart for sensitive environments like Fiordland might also be cost effective for all parties. However, some hundreds of recreational and a small number of commercial vessels enter and leave our region without ever going near a port. This means that the risk management activities of our neighbours and some more remote points of departure are also important. We have already begun talking with marina operators in Wellington and this suggests that they will respond best if there could be one vessel cleanliness standard for all marina berth agreements. What is the appropriate standard for this and how does it relate to special cases like Fiordland model?

So if we want to cease being a risk to other regions we need to look further at node management and we need to ensure that what leaves our region is clean. Attending to risks within the region would provide that assurance.

So in summary:

- We are getting more confidence about the border and the next step is assurance about implementation of the craft risk management standard
- We significantly reduce the rate most risk vectors entering our region undetected and untreated. The technology is there but we need to become effective at all aspects of changing behaviour from awareness to regulation
- We can at least slow the spread of the harmful organisms within the region and doing so will have real benefits in risk reduction but we will have to get the cooperation of all sectors that contribute to the risk

- And once we have done the above we can feel virtuous because we will have ceased to be a source of risk to other regions.

Thank you