



The Craft Risk Management Standard for Biofouling

Tracey Bates

Biosecurity Environment Group

Plant, Food and Environment Directorate

Growing and Protecting New Zealand





Introduction to the Craft Risk Management Standard

Interim threshold and risk management tools

Risk management post-May 2018

Risk management in practice

Next steps

Vessels as vectors

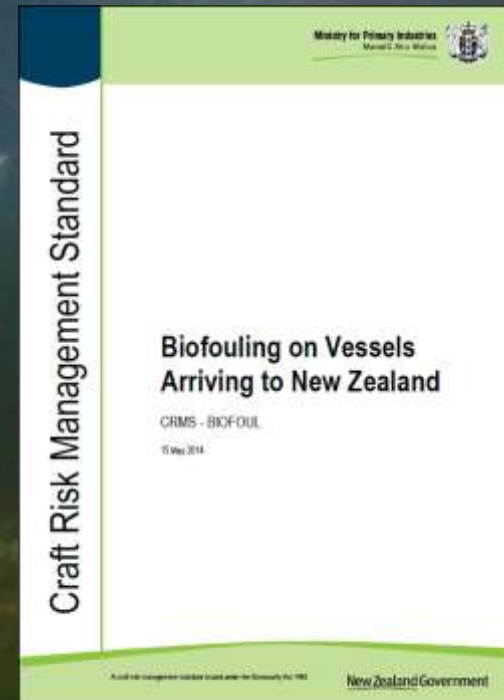
- Vessels = large surfaces for biofouling to accumulate
- Increases in maritime trade and transport has played a major role in spread of marine organisms outside their natural geographic ranges
- > 3,000 vessels enter NZ annually
- Estimated 69-87% of non-indigenous marine species in New Zealand are linked to vessel biofouling pathway

Background to the Craft Risk Management Standard

- **Govt research 2004-2007, 2009**
 - All vessel types found to carry non-indigenous biofouling
 - Niche areas = abundant, diverse fouling
 - More fouling = higher likelihood of NIS
- **Risk Analysis**
 - 12 taxonomic groups identified as posing a risk to NZ
 - Potential pests when transferred to a new environment.

The Craft Risk Management Standard for Biofouling

- Basic requirement is that all arriving vessels are “clean” below the waterline on arrival
 - Thresholds governed by vessel itinerary
- Gives options to meet the standard
- Applies to all vessels arriving into New Zealand, from May 2018



Interim thresholds

- Standard is not being enforced until May 2018
 - However can take action on severely fouled vessels
- **What is severely fouled?**
 - 40% cover of tube worms, barnacles or any other species over a continuous area
 - Or a high risk organism



1. Anemones
(can be clumps of colonial anemones)



2. Bivalves
(oysters, mussels etc)



3. Mobile crustaceans
(crabs, shrimps, etc)



4. Sponges
(various shapes)



5. Sea-snails



6. Sea-squirts
(can be clumps of colonial squirts)

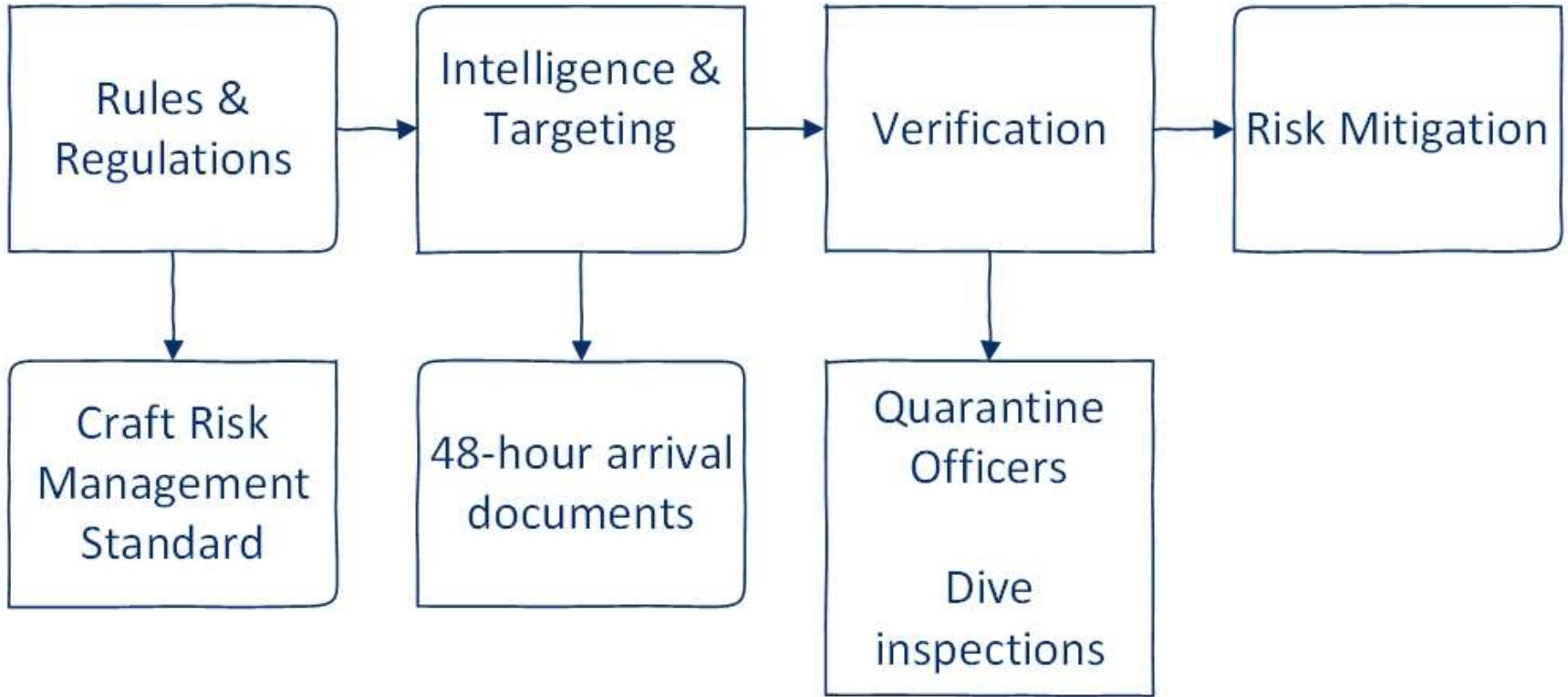


7. Sea-stars
(also cushions and snake stars)



8. Marine worms
(not tube worms)





Measuring compliance

Risk profiling

- Vessel survey 2004-2007, 2009
 - Identified factors that influence presence of biofouling and fouling extent
- Key indicators of NIS presence
 - > dry dock interval
 - > vessel age
 - > average number of days in port
 - Periods of inactivity



Measuring compliance

Risk profiling

- Risk factors included in 48-hour arrival documents
- MPI Intelligence & Targeting Team
 - Assess likelihood of biofouling risk
- Target suspect high risk vessels

	Indicative risk value by vessel type							
	Bulker	Tanker	Container	RoRo	Reefer	Passenger	Fishing	Recreational
When was the last renewal of anti-fouling coating to the hull? (# days)	≥ 1369	≥ 1369	≥ 1369	≥ 1369	≥ 1369	≥ 548	≥ 250	≥ 300
Score	1	1	1	1	1	1	2	1
Since the last anti-fouling paint renewal, how many times was the vessel moored or laid-up in one location for more than 10 consecutive days?								
≥ 4 days (passenger/cruise vessels only)	—	—	—	—	—	≥ 1	—	—
> 10 and ≤ 20 days	—	—	—	—	—		> 2	? (TBD)
> 20 and ≤ 30 days	—	—	—	—	—		-or- ≥ 1	? (TBD)
> 30 days	≥ 1	≥ 1	≥ 1	≥ 1	≥ 1		-or- ≥ 1	≥ 1
Score	1	1	1	1	1	1	1	1
How many different ports of call has the vessel made in the last 12 months?	≥ 35	≥ 30	≥ 50	≥ 45	≥ 35	—	≥ 5	?
Score	1	1	1	1	1	—	1	N/A
Gross tonnage (passenger/cruise vessels only)	—	—	—	—	—	≤ 5000	—	—
	—	—	—	—	—	1	—	—
Risk Assessment advice -- investigate vessel further if total score is ≥	2	2	2	2	2	2	3	1
NOC threshold scores:								
Medium risk = 2								
High risk = 3								

How will we measure compliance?

Short-stay vessels

Vessels that comply with the standard through continual best practice can demonstrate compliance with:



A Biofouling Management Plan



Evidence of the renewal or application of an antifouling coating system



Results from a recent in-water inspection.



Biofouling Management Plan

A biofouling management plan should include:



A description of the anti-fouling system and certificates



A description of the vessel's operating profile



A full list of hull niche areas

A record of activities performed for biofouling maintenance. This should include a contingency plan for when the vessel works outside of its operating profile.

Long-stay vessels

The operators of long stay vessels, or vessels which do not operate according to the IMO Biofouling Guidelines, will need to provide:

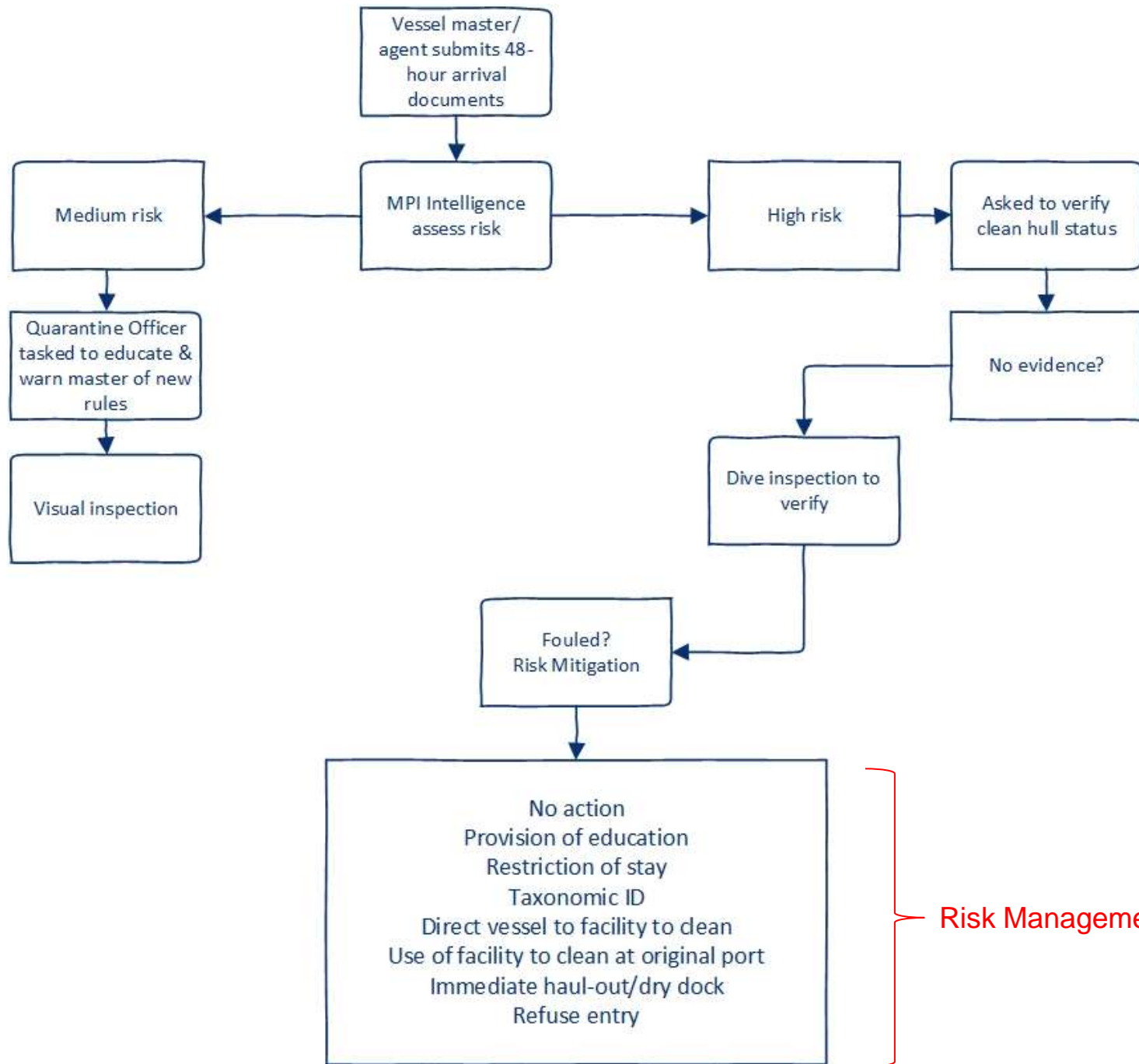


Evidence of the hull being cleaned, or treated, less than 30 days before arrival in New Zealand.

Hull inspections in the context of the CRMS

- At the border
 - If MPI Target Evaluators suspect the vessel represents a biofouling risk
 - Vessel may be given a dive inspection
 - Using an approved provider of hull inspections
- Before entry into NZ
 - A vessel wants entry into NZ
 - Has their hull/niche areas cleaned and inspected within 3 weeks of arrival
 - Commission an inspection and provide evidence/report to MPI





Risk Management options

Risk management in practice



Ile De Re
Denied entry

Research/ develop tools to mitigate risk

In-water cleaning



DL Marigold
Dive inspection on arrival
Restrict time in port
Directed outside EEZ
Denied entry until cleaned

Research/ develop tools to mitigate risk

In-water cleaning



SV Tenacious
Dive inspection on arrival
Restrict time in port
Directed outside 12 nm limit
Directed to dry dock to clean

Greater communication with NGOs, trusts, etc.

Commercial vessel readiness

Engaging with IMO & other countries
Communicating best practice guidance
Strong communications plan

Engagement with other sectors

Engagement with oil industry, research vessels, bulk vessel groups
Engagement with ports, exporters and importers

Intelligence & Targeting Systems

Analyse ITT data and assess if uptake is improving
Develop tools required to assess risk
Train Intelligence team

CRMS processes and tools in place

CRMS Guidance document
Treatments and providers approved
Haul-out facilities for small vessels approved
Craft Risk Management Plan Templates developed

Border Systems & Processes

- Systems in place for collecting and storing information (VTRAM etc)
- Train QOs to know when an inspection is required
- Specific biofouling training for Qos
- Decision making processes

“Go Live” May 2018

Acknowledgements

- MPI Biosecurity & Environment Group
- MPI Biosecurity Science & Risk Assessment
- MPI Intelligence & Targeting Team
- MPI National Operations Centre
- CRMS Implementation Project Team
- Science providers (NIWA, Cawthron, ES Link Services, Biofouling Solutions)