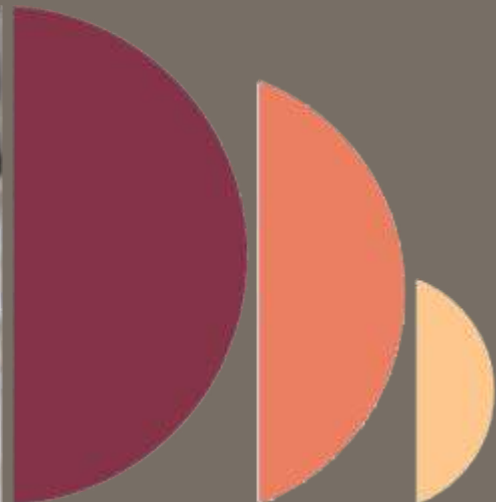




Australian Government  
Department of Agriculture

# Seasonal measures for the Brown Marmorated Stink Bug (BMSB) 2019-20 Risk Season

Industry Information Session



Nathan Reid  
September 2019

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# Nathan Reid

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Compliance Policy, Compliance Division

# Welcome

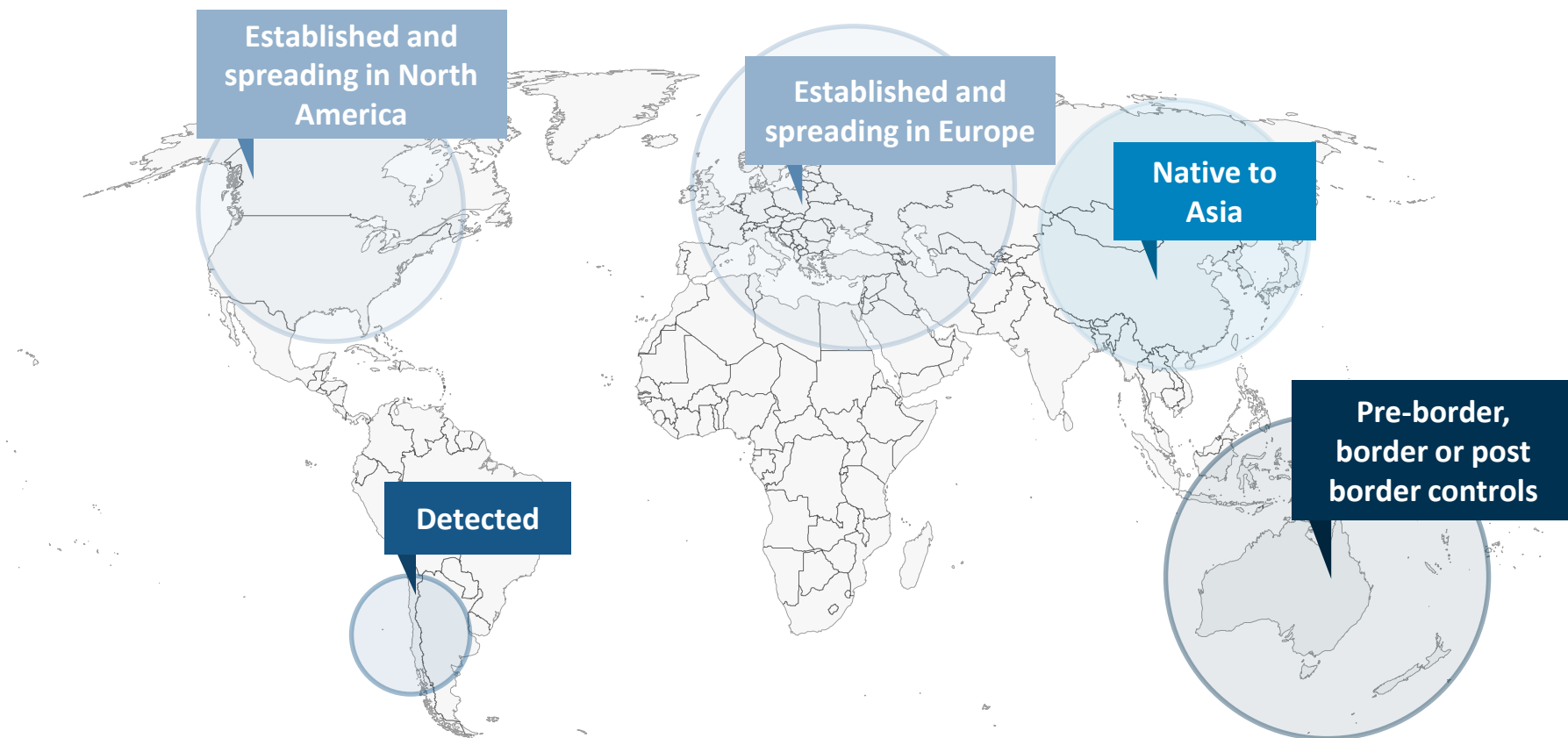
## Topics

- BMSB overview of pest risk and risk to Australia
- Post border activities
- Update on 2018-19 BMSB season
- Measures for the 2019-20 BMSB risk season
- BSMB treatment – onshore and offshore

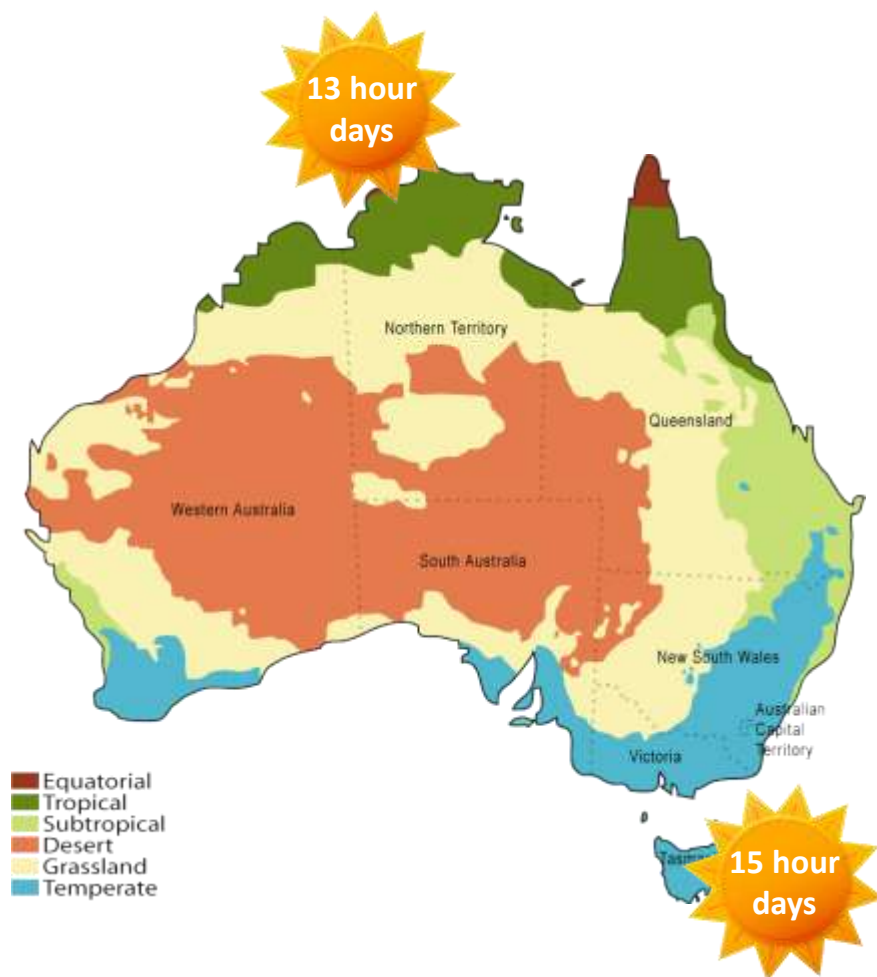


# **BMSB pest risk and risk to Australia**

# The risk and spread of BMSB



# Australia's environment



Day length varies significantly from the most northern and southern points

Darwin – 12:51 hrs/min

Hobart – 15:21 hrs/min

Australia's environment supports the entry and potential pathway for BMSB to establish

# Brown marmorated stink bug

## An agricultural pest

- Potential to severely impact Australian agricultural industries
- Known to feed on around 300 different plant species
- Juveniles and adults feeds on, and severely damage fruit and vegetable crops



*Images source: google*

# The risk of BMSB to Australia

## A nuisance pest

- Adults enter vehicles, homes and factories in large numbers in autumn months, looking for places to shelter over winter
- When threatened they produce a smelly chemical and in some cases people experience a burning sensation if skin comes in contact with BMSB secretions
- The smell emitted is an aeroallergen that can cause allergic reactions in some people



*Images source: google*



# Brown marmorated stink bug

## Why is it a risk to Australia?

- Warming temperatures and >13.5 hour day length breaks diapause
- BMSB need to feed before becoming sexually mature, so when emerging from overwintering sites they will migrate to host plants (particularly those that are bearing non-woody fruit or seeds to feed)
- Bugs will also be dehydrated so water sources also likely to be attractive
- Will only take flight and lay eggs when temperature above 15 degrees Celsius



Images source: [mylittlecornertoshare.blogspot.com/2010/09/stink-bug.html](http://mylittlecornertoshare.blogspot.com/2010/09/stink-bug.html)

# Industry and community awareness

## Industry's role in biosecurity

- See. Secure. Report.
- Working with offshore suppliers to manage not just BMSB risk, but all pest risks



Look for pests in shipping containers and imported goods



# BMSB intervention

## Summary of intervention for the 2018-19 season

- 310 detections of BMSB, of which
  - 246 detections are detections made at the border
  - 64 detections are detections made post border
  - 7 post border detections were reportable to states and territories
- Assessed over 80 000 entries and 75 000 containers – approximately 22 per cent of all entries
- Directed around 48 per cent of these entries for onshore treatment and around 12 000 entries for onshore inspection
- Assessed over 666 vessels for BMSB risk and conducted over 726 vessel inspections



*Images source: [mylittlecornertoshare.blogspot.com/2010/09/stink-bug.html](http://mylittlecornertoshare.blogspot.com/2010/09/stink-bug.html)*

# Detections

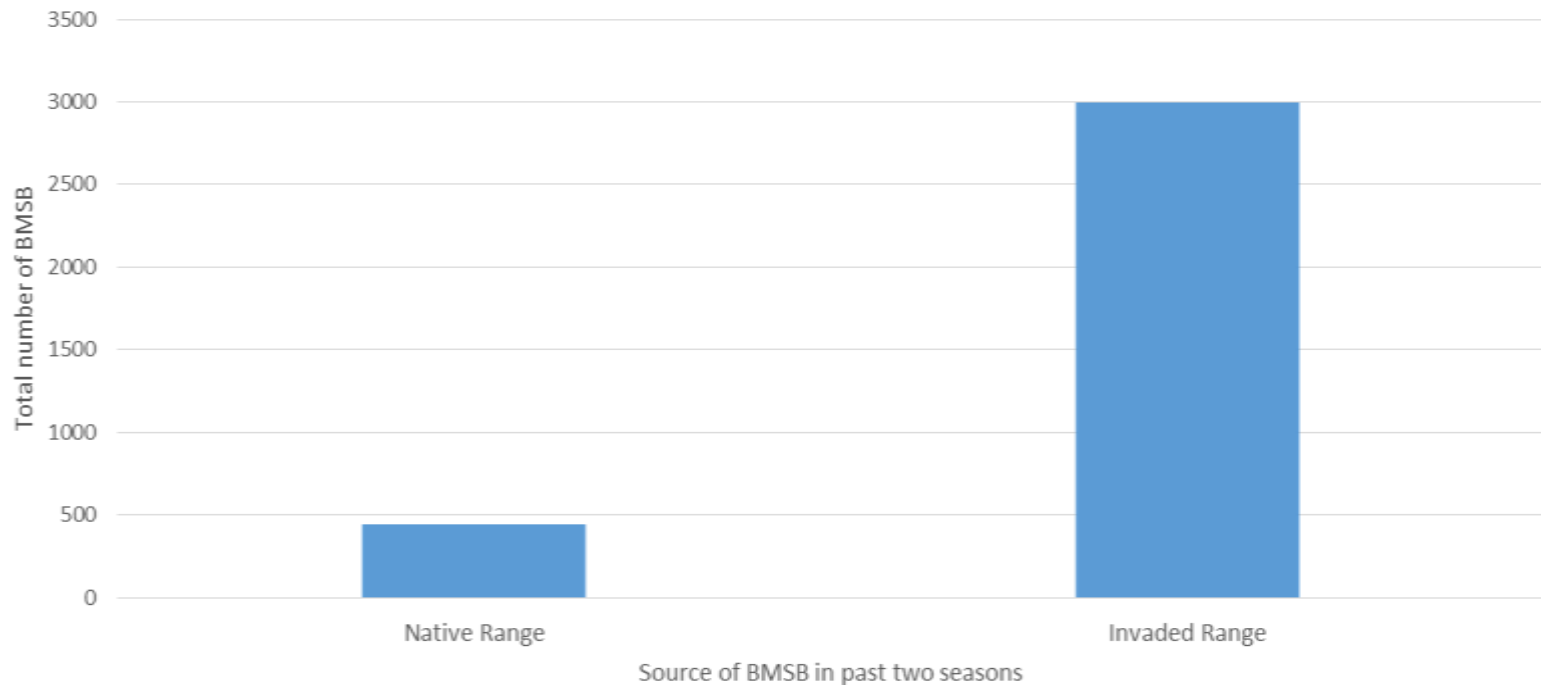
## Types of goods associated with BMSB detections



# Detections

## Why we have targeted a range of countries

The total number of BMSB found from native range countries (China, Japan and South Korea) and invaded range countries (Europe and North America) from 1 September 2017 to 9 March 2019



# Vessels and their risk

## Roll-on Roll-off Vessels

- Provide many spots for BMSB to hide or find refuge
- During transit BMSB may emerge from vehicles loaded onto a vessel

What does a  
single stowaway  
BMSB mean?



# Responding to the risk

## Our response to emerging risks this season

- Monitoring of BMSB detections and increased intervention on goods imported by known non-compliant importers and pathways
- Suspended offshore treatment providers when detections of BMSB have been made on treated goods
- Directed goods to be exported on arrival where they could not be effectively treated due to packaging concerns
- Introduced some automation to manage LCL and FAK containers
- Introduced mandatory on-arrival verification inspections of vessels (seasonal pest inspections) on all ro-ro vessels from target risk countries and Japan due to high volumes of detections of BMSB and other exotic species on ro-ro vessels

# Measures for 2019-20 season



# 2019-20 BMSB risk season

## Methodology used to determine the measures

- Review historical data on BMSB detections and contaminations
- Review historical data of arriving volumes of cargo and commodities
- Conduct analysis and understanding of the BMSB pest spread of across Europe
- Any goods with BMSB detections are considered a reasonable risk for measures to be applied
- Review previous seasons' measures and lessons learned

# 2019-20 BMSB risk season

## When do the measures apply?

- Seasonal measures are implemented to manage the risk of BMSB arriving in cargo and containers during the high risk season
- The 2019-20 BMSB seasonal measures apply to:
  - Certain goods (target high risk goods and target risk goods) manufactured in, or shipped from, target risk countries as sea cargo
  - Vessels that berth at, load or tranship from target risk countries**from 1 September 2019 and that arrive in Australian territory by 31 May 2020 (inclusive)**
- Throughout the season we will continue to review the measures and based on detections of BMSB and the risk pathways

# 2019-20 BMSB risk season

## The 2018/19 = 9 Target risk countries

- For the 2018/19 BMSB risk season the department had 9 target risk countries plus heightened vessel surveillance in Japan:



*\* Heightened vessel surveillance only*

# 2019-20 BMSB risk season

## 2019/20 = 33 Target risk countries

- Any target high risk or target risk goods manufactured in, or shipped from these countries are subject to the BMSB seasonal measures
- Any vessel that tranships or loads goods from these countries are also subject to heightened vessel surveillance



*\* Heightened vessel surveillance only*

# 2019-20 BMSB risk season

## Measures relating to goods

- Target high risk goods will require mandatory treatment
- All target high risk and target risk goods will be subject to increased onshore intervention through random inspection
- All other goods are not subject to the BMSB measures – however will be subject to the measures if they are part of a consignment/container that contains target high risk and target risk goods
- Treatment options include
  - Heat treatment
  - Methyl bromide fumigation (not available in the EU)
  - Sulfuryl fluoride fumigation

# 2019-20 BMSB risk season

## Mandatory treatment for target high risk goods

- Offshore treatment is required for goods shipped as break bulk including those shipped in open top or on flat rack containers
- Offshore or onshore treatment is required for goods shipped in sealed six hard sided containers
- Containers need to be packed in a manner to enable effective onshore treatment at the container level to avoid export of the entire container
- Deconsolidation or removal of goods will not be permitted for onshore treatment

**Target high risk goods requiring mandatory offshore treatment that arrive untreated will be prevented from discharge and/or directed for export on arrival**

# 2019-20 BMSB risk season

## Mandatory treatment, offshore only

- Offshore treatment is required for target high risk goods that are shipped as break bulk
- Goods shipped in open top or on flat rack containers are considered as break bulk

**Target high risk goods requiring mandatory offshore treatment that arrive untreated will be directed for export on arrival**

# 2019-20 BMSB risk season

## Mandatory treatment, offshore or onshore

- Target high risk goods shipped as Full Container Loads (FCL) in sealed six hard sided containers can be treated offshore or onshore at the container level
- Target high risk goods shipped as Less than Container Load (LCL) and Freight of All Kinds (FAK) can be treated offshore or onshore.
- Onshore, LCL and FAK consignments can only be treated onshore when they can be treated at the container level

**Consideration must be given to ensure FCL, LCL and FAK target high risk goods are packed in a manner to enable effective onshore treatment at the container level to avoid export of the entire container**



# 2019-20 BMSB risk season

## Sulfuryl fluoride treatment rates – non 3<sup>rd</sup> party systems

- A dose of 24g/m<sup>3</sup> or above, at 10°C or above, for a minimum of 12 hours (but less than 24 hours), with a minimum end point retention of 12g/m<sup>3</sup>

Or

- A dose of 24g/m<sup>3</sup> or above, at 10°C or above, for a minimum of 24 hours or longer, with a minimum end point retention of 8g/m<sup>3</sup>

# 2019-20 BMSB risk season

## Sulfuryl fluoride treatment rates – using 3<sup>rd</sup> party systems

- Achieve a CT of 200g-h/m<sup>3</sup> or more, at 10°C or above, for 12 hours or longer, with a minimum end point retention of 12g/m<sup>3</sup>

Or

- Achieve a CT of 200g-h/m<sup>3</sup> or more, at 10°C or above, for 24 hours or longer, with a minimum end point retention of 8g/m<sup>3</sup>

**Note:** The approved third party systems are:

- Douglas Products FumiGuide
- Ensystex II, Inc. Fumicalc

# 2019-20 BMSB risk season

## Heat treatment

For all goods types and sizes

- **56°C or higher at the coldest surface of the goods, for a minimum of 30 minutes**

Or an alternative option for individual goods weighing less than 3000kg shipped as break bulk only

- **60°C or higher at the coldest surface of the goods, for a minimum of 10 minutes**

**Note:** individual goods shipped as break bulk weighing less than 3000kg treated at 60°C for 10 minutes require evidence within shipping documentation that they are less than 3000kg for these treatments to be accepted.

# 2019-20 BMSB risk season

## Safeguarding arrangements

- Safeguarding arrangements will be introduced for the 2019-20 risk season as an alternative clearance pathway for goods
- The scheme will allow certain goods and supply chains to be recognised under safeguarding arrangements
- Under the scheme, approved participants will be recognised for their ability to manage biosecurity risk offshore, including seasonal hitchhiker pest risk such as BMSB, from the point of manufacture to the point of embarkation
- The scheme will be trialled with select industry participants before being opened to all other industry participants

# 2019-20 BMSB risk season

## Measures relating to vessels

- Heightened vessel surveillance on all roll-on/roll-off (ro-ro) vessels will be applied through pre-arrival reporting
- Vessel operators will be required to conduct self-inspections and report any detections of BMSB and other exotic insects
- All ro-ro vessels that berth at, load or tranship from the target risk countries, will be required to undergo a mandatory seasonal pest inspection on arrival in Australia
- Vessels approved under the Vessel Seasonal Pest Scheme may be exempt from the mandatory seasonal pest inspection

# 2019-20 BMSB risk season

## Vessel Seasonal Pest Scheme (VSPS)

- Vessel Seasonal Pest Scheme (VSPS) will be introduced for the 2019-20 risk season as an alternative vessel clearance pathway for ro-ro vessels
- Ro-ro vessels that qualify for the Vessel Seasonal Pest Scheme and have detected no insects on board will be exempted from the mandatory seasonal pest inspection
- Inspections on vessels may be performed for other biosecurity reasons unrelated to BMSB
- The department is working with shipping lines to trial the VSPS

# BMSB treatments

# BMSB treatment

## Treatment assurance measures

- The department and the New Zealand Ministry for Primary Industries (NZ MPI) have developed joint treatment assurance measures for the 2019-20 season
- These include:
  - Minimum standards for BMSB treatments and offshore treatment providers
  - Offshore BSMB Treatment Providers Scheme including an approved offshore treatment provider list
  - Processes to prevent fraudulent treatment certificates



# BMSB treatment

## Treatment minimum standards

- The department will continue to have three approved BMSB treatments:
  - sulfuryl fluoride fumigation
  - methyl bromide fumigation (not available in the EU)
  - heat treatment
- Compliance requirements are detailed in treatment methodologies which are published on the department's website
- Offshore treatment providers are required to conduct treatments that are consistent with the requirements set out in the methodologies
- Compliance monitoring of treatment providers will continue to be conducted

# Offshore treatment

## Offshore BMSB Treatment Providers Scheme



Provides increased assurance and confidence that offshore treatments are conducted effectively



2018/19 - 196 approved offshore treatment providers across 23 countries



Over 80,000 treatment certificates received for this season



# BMSB treatment

## Offshore BMSB Treatment Providers Scheme

- The Offshore BMSB Treatment Providers Scheme will continue in the 2019-20 season
- All treatment providers in target risk countries that intend to conduct BMSB treatments must register under the scheme
- All applicants must demonstrate that they meet all requirements of the scheme and the requirements for the treatment types they wish to conduct
- The department and NZ MPI have aligned the application processes
- More information about the 2019-20 application process is available on the department's BMSB webpage at:  
[www.agriculture.gov.au/import/before/brown-marmorated-stink-bugs/offshore-bmsb-treatment-providers-scheme](http://www.agriculture.gov.au/import/before/brown-marmorated-stink-bugs/offshore-bmsb-treatment-providers-scheme)

# BMSB treatment

## Offshore BMSB Treatment Providers Scheme

- Treatment providers in non-target risk countries who intend to conduct BMSB treatments for goods that are manufactured in target risk countries are encouraged to register
- The list of approved treatment providers will continue to be available on the BMSB webpage
- Exporters need to check for the most up-to-date details of offshore treatment providers under the scheme

# BMSB treatment

## Offshore BMSB Treatment Providers Scheme

- The department expects that onshore treatment capacity will be stretched and recommends treatments are conducted offshore wherever possible
- Australian importers with goods that have been treated offshore by approved treatment providers will have the least impediments when their goods arrive into Australia
- Early and accurate reporting of consignment documentation by customs brokers, including providing all the details of treatment, will assist with expected delays

# BMSB treatment

## Treatment provider suspensions

- Treatment providers can be suspended if they are found to be non-compliant and/or the department does not have the confidence that treatment has been effectively conducted
- Before suspending a treatment provider, the department carefully assesses all information available to ensure an accurate and consistent decision is made
- To gain reinstatement onto the scheme, suspended treatment providers must satisfy the department that they have addressed all non-compliance issues

# BMSB treatment

## **Treatment provider suspensions and in-transit policy**

- Notice of suspended treatment providers are published on the BMSB webpage and through Import Industry Advice Notices
- Goods treated by a suspended offshore treatment provider are subject to an in-transit policy
- Goods are classified as 'in-transit' when they have left the country of origin but have not yet been cleared through the border in Australia.
- All certification issued by a suspended treatment provider is unacceptable from the date the suspension is published on the scheme webpage, regardless of the date of treatment or date of issue on the certificate

# BMSB treatment

## Fraudulent certificates

- Treatment certificates are checked for validity as part of normal documentary processes
- In addition to this, offshore treatment providers are required to submit treatment certificates so they can be matched to those provided by Customs Brokers
- Goods with fraudulent, defective or unreported treatment certificates will be directed for onshore treatment (if permitted), or export
- The department will be improving on the 2018/19 system with a new IT solution to streamline certificate reporting
- Certificate reporting requirements will be provided to registered treatment providers before the 2019/20 BMSB season commences



# BMSB treatment

## Treatment provider monitoring

- Monitoring of treatment providers will be conducted to ensure effective treatment, and compliance with documentary and administrative processes
- Sanctions are able to be applied against non-compliant treatment providers, including:
  - increased inspections to verify efficacy of treatment and adherence to the methodologies
  - suspension of treatment providers



Stay updated on the BMSB seasonal measures by visiting the department's webpage

**[www.agriculture.gov.au/bmsb](http://www.agriculture.gov.au/bmsb)**

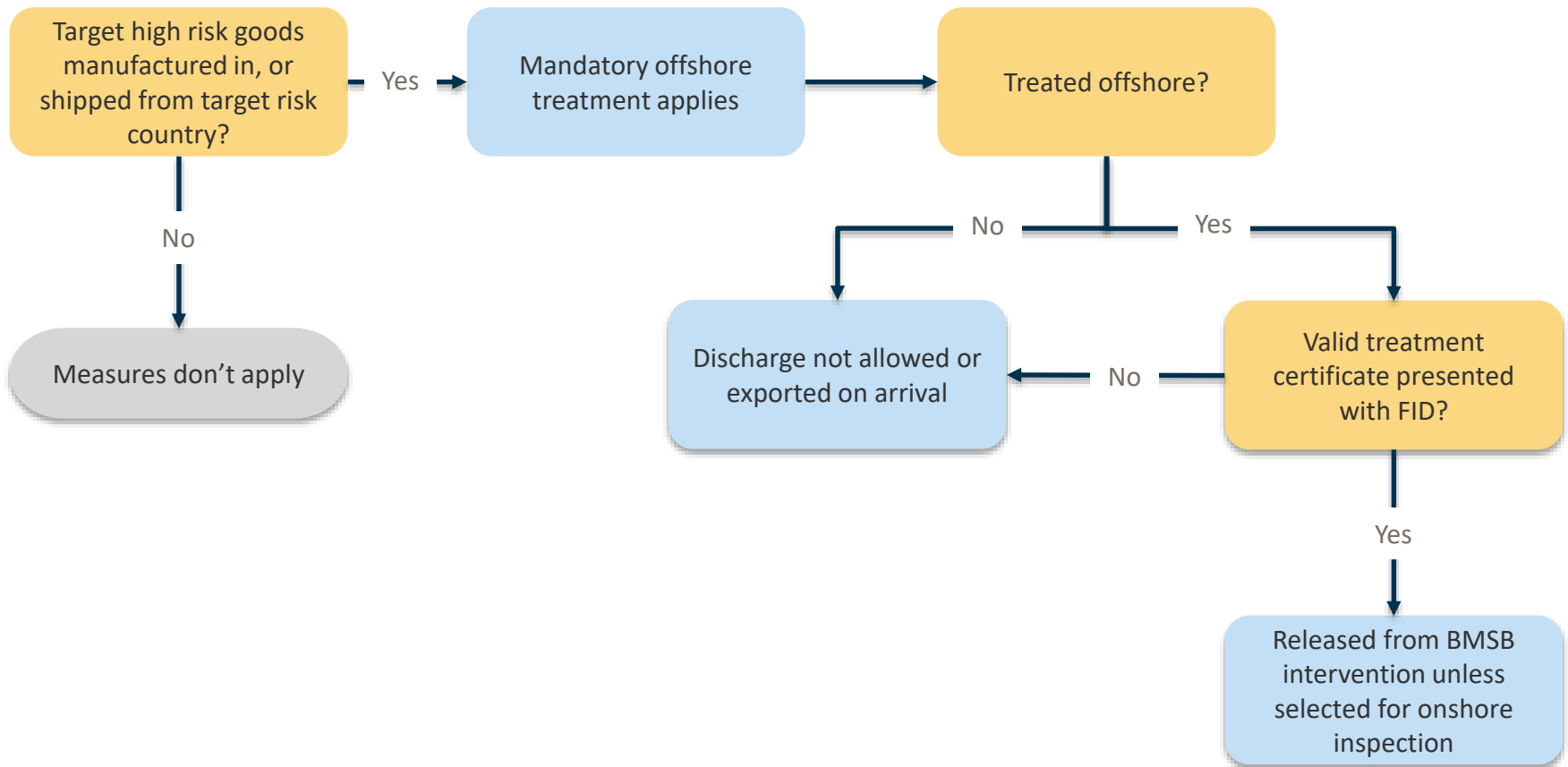


Any questions relating to the policy for seasonal pests can be emailed to:

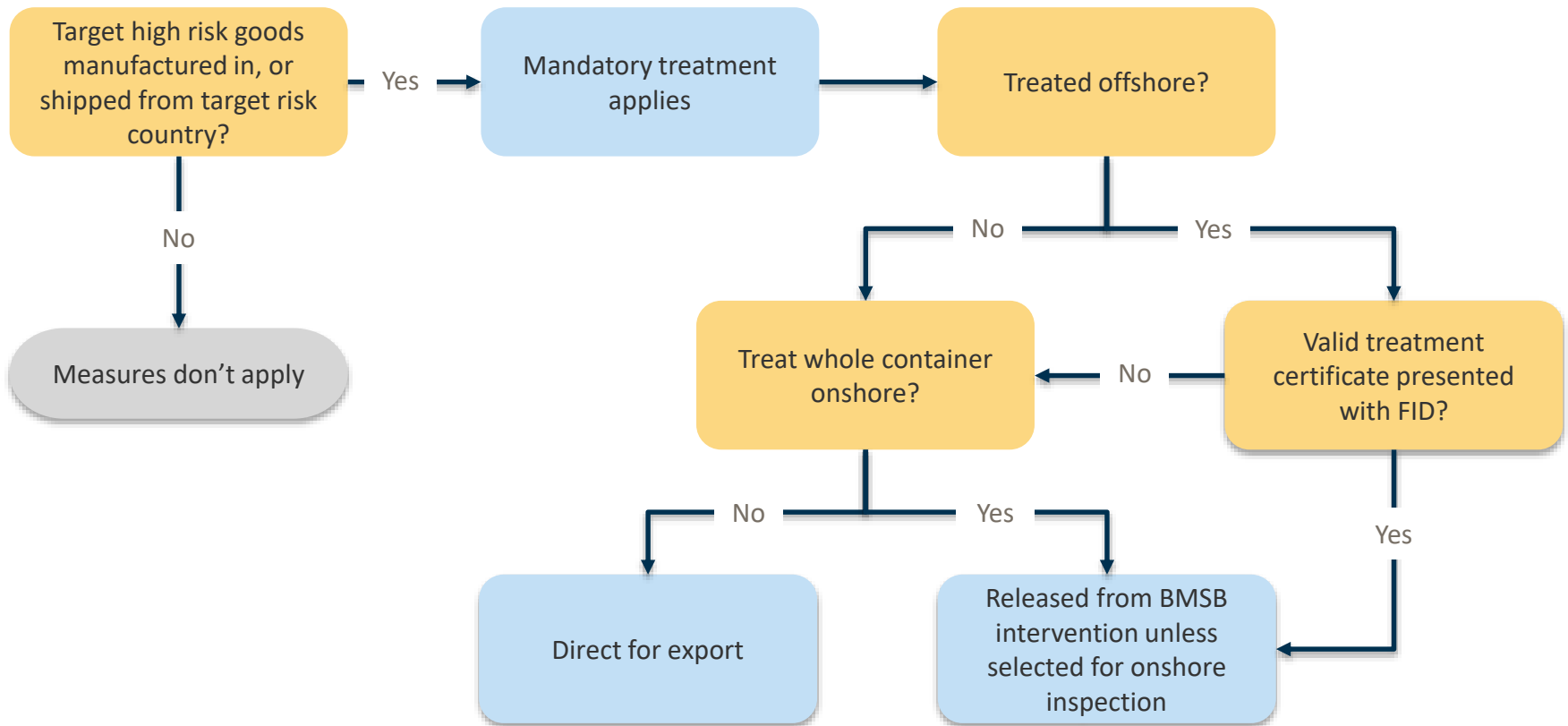
**BMSB Policy:**  
**[spp@agriculture.gov.au](mailto:spp@agriculture.gov.au)**

**Offshore BMSB Treatment Providers Scheme:**  
**[BMSBtreatments@agriculture.gov.au](mailto:BMSBtreatments@agriculture.gov.au)**

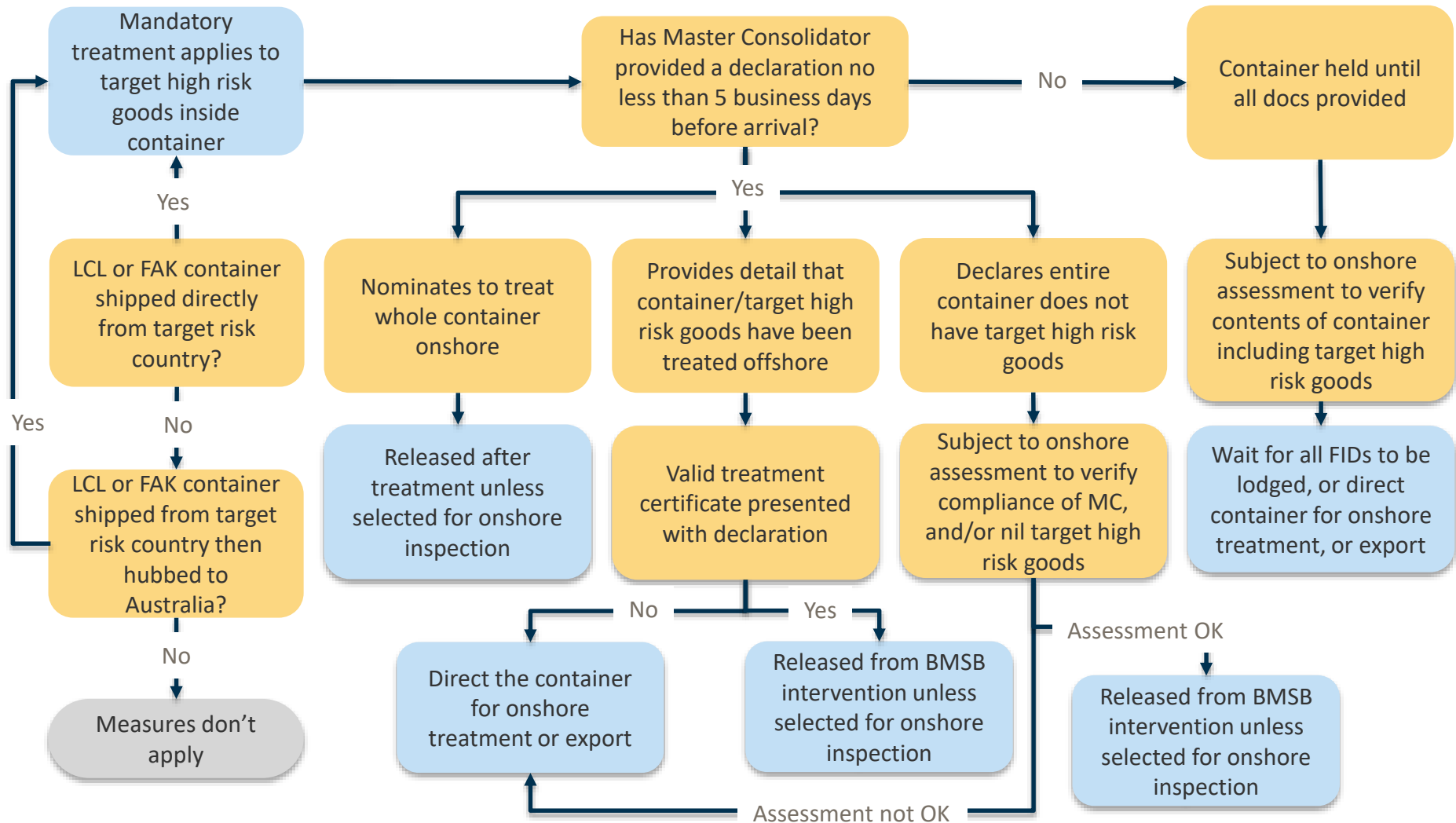
# BMSB intervention for break bulk goods including open top and flat rack containers



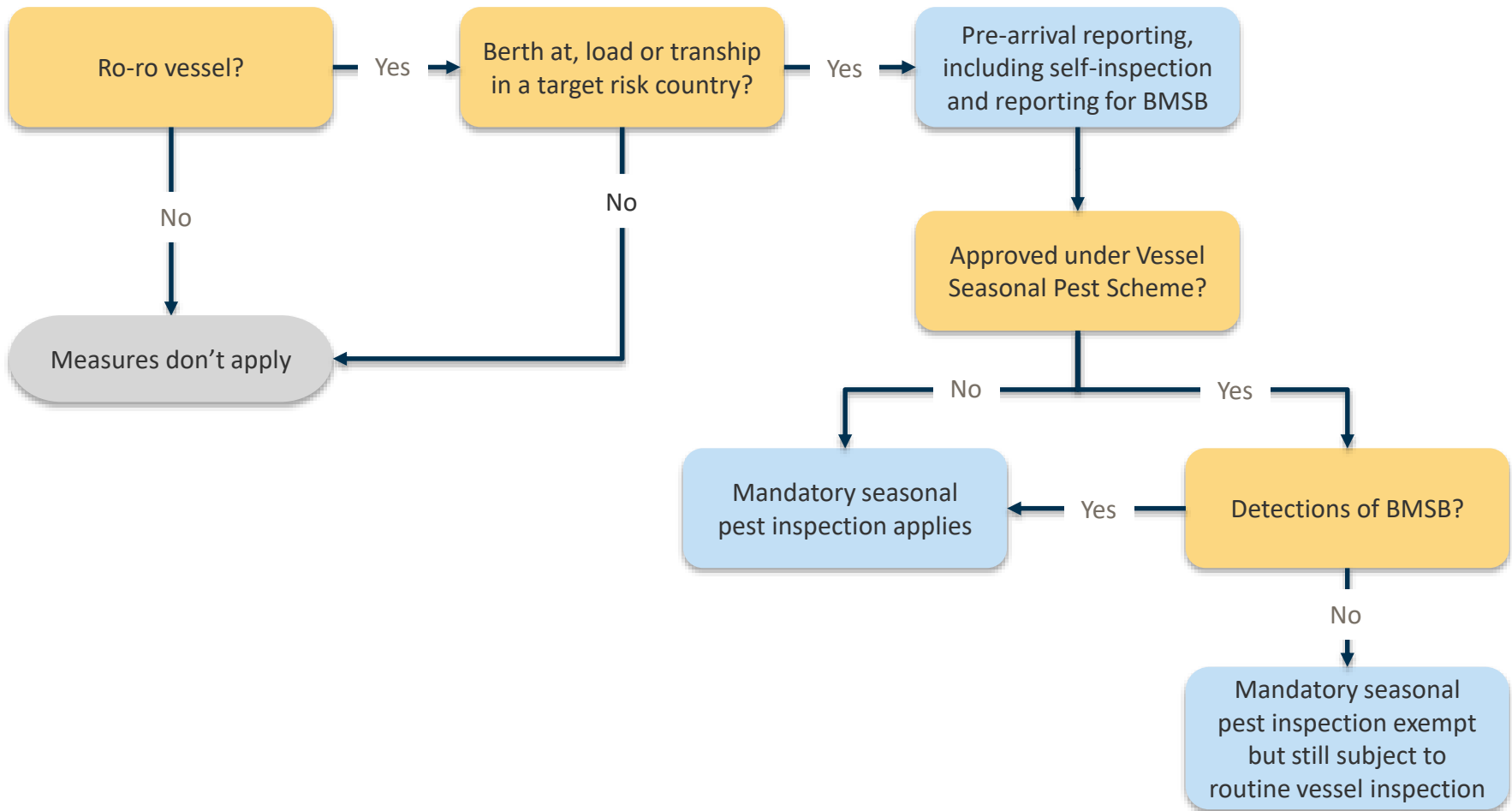
# BMSB intervention for containerised goods for FCL and FCX containers



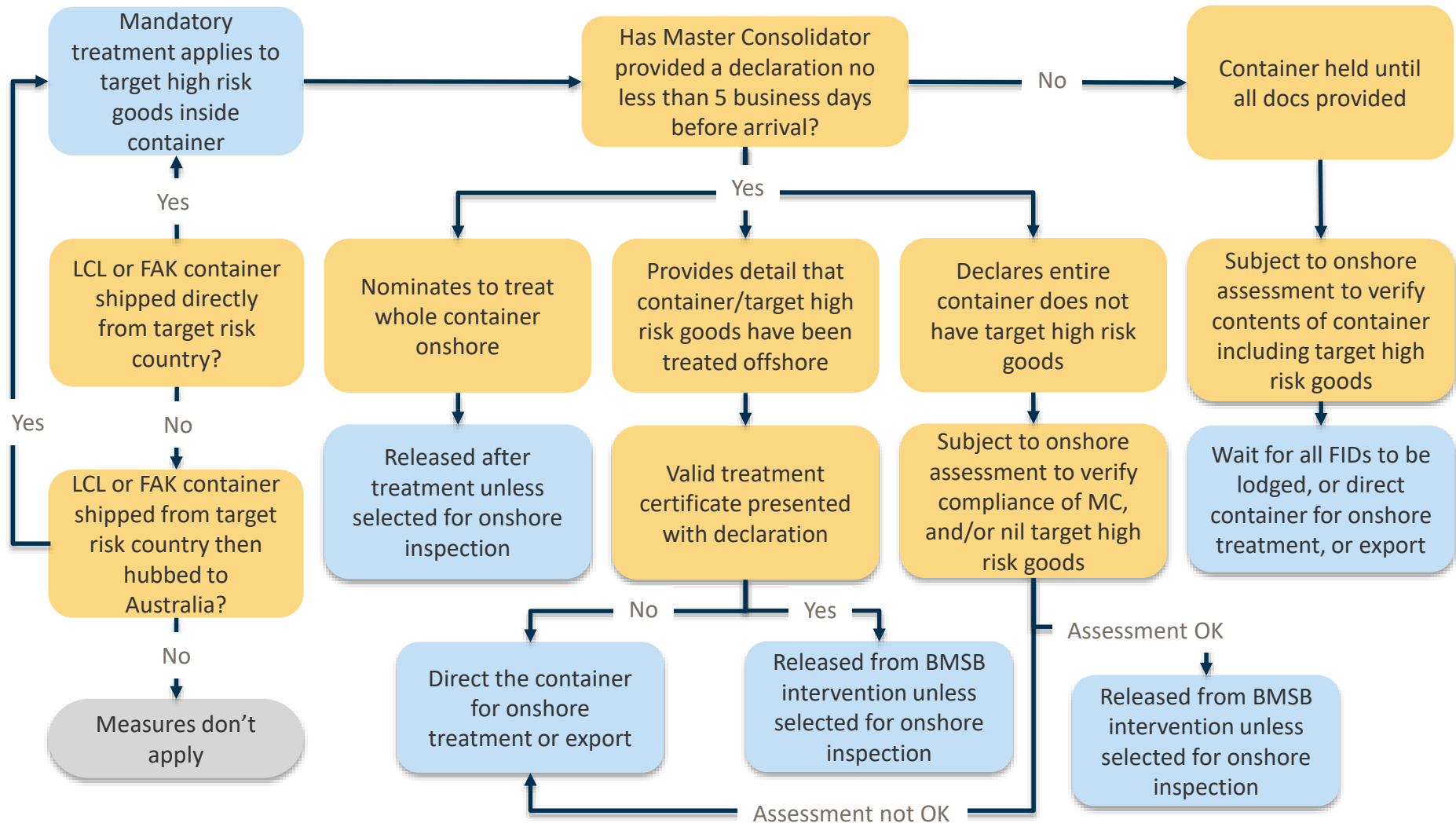
# BMSB intervention for LCL and FAK containers



# BMSB intervention for vessels



# BMSB intervention for LCL and FAK containers



# Scenarios for LCL/FAK hubbing

