

# Abbot Point Anchorage Proposal

## Results of Consultation

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# Document control options

## Departmental approvals

Refer to the appropriate Risk Assessment Tool for relevant reviewer and approver

Date	Name	Position	Action required (Review/endorse/approve)	Due
04/12/2020	Frank D'Souza	RHM Townsville	Endorsed	
21/01/2020	Paul Brandenburg	ED (MS)	Endorsed	
21/02/2020	Jennifer Tumbers	A/GM (MSQ)	Approved	

## Risk level

- GACC major       GACC minor       High risk (but not GACC)       Medium risk

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# 1. Summary

## 1.1 Reason for anchorage

The protection of the Great Barrier Reef (GBR) and its environmental, social and economic values is one of the Queensland Government's most important objectives for the community. Ports and shipping play a critical role in developing regional industries and supporting local communities, as well as expanding the Queensland economy. Limiting the environmental footprint of shipping and maintaining equitable access to coastal waterways is one way that the government supports the local community and economy while also protecting the GBR.

In line with its safety and environmental objectives, Maritime Safety Queensland (MSQ) is considering a dedicated anchorage area for the Port of Abbot Point with a view to reduce the overall footprint of the seafloor affected by anchoring.

## 1.2 Consultation with Stakeholders

There is no official process for external stakeholders to review or comment on designating anchorages. However, MSQ understands that there is a heightened awareness of the potential impacts of shipping in the GBR and as such, consulted widely with government and industry stakeholders on the proposed anchorage location.

In 2015, in response to plans to expand the port, MSQ investigated the potential to implement a dedicated anchorage for the Port of Abbot Point. That investigation included consultation with key stakeholders who generally agreed that the proposal was good for on-water safety and offered suggestions on its preferred location, size and use. Due to the port expansion not materialising, the proposed anchorage was not progressed at that time.

With mining approvals now granted for the Galilei Basin and an increased focus on the environmental protections for the GBR, MSQ is re-visiting the need for a more formal anchorage management practice for the port.

A design criteria was developed to determine a suitable anchorage location. An initial design was released for comment in the 2015 consultation, which was then tweaked after suggestions and now a final anchorage design has been developed for the latest consultation that was released in late 2019 to stakeholders.

## 1.3 Overall support for the implementation of dedicated anchorages for the Port of Abbot Point

Overall support for the implementation of dedicated anchorages for the Port of Abbot Point to improve maritime safety in the area and to limit the area of the GBR effected from anchoring.

Also, strong support for the proposed anchorage management strategy of constraining operations to the repeated use of selected deeper anchorages where possible which provided the best overall environmental outcome.

## 1.4 Responses

A full list of responses is provided at Appendix E.

There was overwhelming support for the implementation of designated anchorages.

Generally, the main themes from the feedback were:

- Minimise the overall footprint as much as possible
- Constrain to those already most disturbed and with least environmental impact

- Minimise effect on trawl fishing
- Fishermen to retain access
- No anchorage within proposed two-way route

## 2. Background

One of the Queensland Government's key priorities for the community is the protection of the Great Barrier Reef. Protecting the environmental, social, and economic value of the Great Barrier Reef (GBR) drives many of the Queensland Government's environmental policies and activities.

It is recognised that shipping plays a critically important role developing industries and supporting communities, as well as expanding the Queensland economy. It is essential for Queensland's economy that shipping routes through the Great Barrier Reef remain open and available to shipping on an equitable basis. Limiting the environmental footprint of shipping by implementing a dedicated ship anchorage at Abbot Point is one way that the government supports the local community and economy while also protecting the GBR.

The port of Abbott Point does not currently have dedicated anchorages. Ships needing to anchor off this port currently choose their own location of where to anchor. This has led to a wide area of seabed being affected by ships anchors. It should be noted that the creation of a dedicated anchorage will not in itself attract additional ships but is designed to allow for a more orderly and predictable use of the waterway by existing and future ship traffic.

In 2015, in response to plans to expand the port, MSQ investigated the potential to implement a dedicated anchorage for the Port of Abbot Point. That investigation included consultation with key stakeholders who generally agreed that the proposal was good for on-water safety and offered suggestions on its preferred location, size and use. Due to the port expansion not materialising, the proposed anchorage was not progressed at that time.

With mining approvals now granted for the Galilei Basin and an increased focus on the environmental protections for the GBR, MSQ is re-visiting the need for a more formal anchorage management practice for the port.

Drivers for a dedicated anchorage include:

- enhanced focus on protecting the GBR
- projected mine developments that will utilise the port of Abbot Point
- an increase in the number of ships expected to need to go to anchor

## 3. Objectives

The introduction of designated anchorages in Abbot Point supports the Queensland Government's objectives for the community.

- Keep communities safe:
  - providing a level of certainty to trawl fishermen where they can expect to encounter seabed disturbances caused by ship's anchors to reduce occurrences of hook-ups
  - providing a level of certainty to recreation and commercial boaters on where they will encounter ships at anchor
- Protect the Great Barrier Reef by:
  - minimising the geographic area of seabed disturbance from ship's anchors and its effect on benthic habitat
  - minimising the geographic area of potential disturbance to marine animal behaviour from ship's operations
  - reducing the overall footprint of anchorage area
- Create jobs in a strong economy:
  - Maintain open access by the fishing and boating communities to the anchorage area
  - Facilitating the safe and efficient movement of trade ships to the port

## 4. Intent

The intent is to implement dedicated anchorages for trade ships to use when visiting the port.

## 5. Legislation

MSQ is a branch of the Department of Transport and Main Roads within the Customer Services, Safety and Regulation Division. MSQ's role is to protect Queensland's waterways and the people who use them—providing safer, cleaner seas.

MSQ is responsible for:

- improving maritime safety for shipping and small craft through regulation and education
- minimising vessel-sourced waste and responding to marine pollution
- providing essential maritime services such as aids to navigation and vessel traffic services
- encouraging and supporting innovation in the maritime industry

MSQ exercises its power through the Transport Operations (Marine Safety) Act 1994 and the Transport Operations (Marine Pollution) Act 1995.

MSQ's Regional Harbour Masters have the power under part 7 of the Transport Operations (Marine Safety) Act 1994 ('the Marine Safety Act') to designate anchorages for ships waiting to use Queensland ports, in or adjacent to pilotage areas.

## 6. Previous consultation

### 6.1 Design Criteria

MSQ is committed to the safe movement of ships in the GBR and the protection of the marine environment from the potential impact of ship sourced pollution.

MSQ has previously worked with the Great Barrier Reef Marine Park Authority, North Queensland Bulk Ports and stakeholder groups to identify the best location and management practices for anchorages at the Port of Abbot Point.

Implementing the proposed anchorages will provide a level of certainty to other ships, fishing vessels and recreational boaters, of where they can expect to encounter large ships to anchor. It is also expected that having dedicated anchorage positions will dramatically reduce the overall area of seafloor that is directly impacted by a ship's anchor.

In determining a suitable anchorage location, MSQ has reviewed where ships are currently anchoring and also taken into consideration the following:

- Outstanding Universal Values of the GBR
- navigational safety in the area
- minimise adverse effects on the marine environment, position in already disturbed areas where possible
- access for competing users of the waterway
- reduce and minimise overall impact on other waterway users
- proximity to the port to limit pilotage time and enhance port efficiency.
- prevailing winds, tides and sea conditions



- depth of water and quality of sea bottom – provides suitable holding ground for ships anchor and to determine the length of ship's chain and swing radius/diameter of the anchorage.
- separation of groups of anchorage - to avoid ships criss-crossing when manoeuvring towards the Pilot Boarding Ground or shipping channel
- the ability to evacuate the anchorages in an efficient manner in the event of an approaching cyclone or a severe weather event
- anchorage to be a safe distance from a hazard (e.g rocks, shoal, reef etc) or other ships - to enable the ship to take action in case of dragging.
- a suitable distance away from any known environmentally sensitive area or known wrecks
- location to be accessible by boats or helicopter in the event of a medical emergency, pilot transfer or supply of parts/provisions.
- number of anchorages to meet the estimated level of demand
- anchorages are to be within port VTS coverage for control and monitoring

## 6.2 Initial design

The initial anchorage design, shown at Appendix A, was released for comment as part of the 2015 consultation process.

There was overwhelming support for the implementation of designated anchorages.

There were varied comments about where the exact location of the anchorages should be.

Generally, the main themes from the feedback were:

- minimise the overall footprint as much as possible
- constrain to those already most disturbed and with least environmental impact
- minimise effect on trawl fishing
- fishermen to retain access
- no anchorage within proposed two-way route

Based on feedback from stakeholders the initial design was amended to minimise the overall footprint of the anchorage. The location of the anchorage area was also moved slightly to the east so that it does not encroach on fishing effort grid L22 or on the charted two-way route's northern approach to the port. This resulted in the revised anchorage design shown at Appendix B.

## 6.3 Proposed design

MSQ has revisited the 2015 proposed designated anchorages, reviewed the consultation and amended the proposed configuration of the anchorages to further accommodate suggestions, namely;

- *The preferred option is to utilise the deeper anchorages (i.e. the most easterly positions) first. This would minimise the impacts to the more productive fishing grounds, keeping the anchored ships further away from working fishing vessels.*

MSQ has removed all anchorages that are within the 30m contour. VTS will direct vessels to the seaward 2 rows and only use the inner row (closest to the 30m contour) if required.

- *It would be best to have a wider separation between the anchorages as this would provide increased ease and safety for trawl operations to continue fishing between ships at anchor.*

The revised design provides for between 1.2 to 1.6 nm from a 2-cable arc of the centre of each anchorage. Given the technology and experience of Trawler Master's this is adequate clearance to safely trawl between ships and keep well clear of the anchor divots which are expected to be confined to around the centre of the anchorage circle.

- *Most heavily used anchorages should be the ones that carry the lowest risk of the range of impacts under consideration and proposed for consideration.*

VTS will direct vessels to the seaward 2 rows and only use the inner row (closest to the 30m contour) if required.

The revised design layout is shown at Appendix C. This is the anchorage layout being proposed.

## 6.4 Management practices

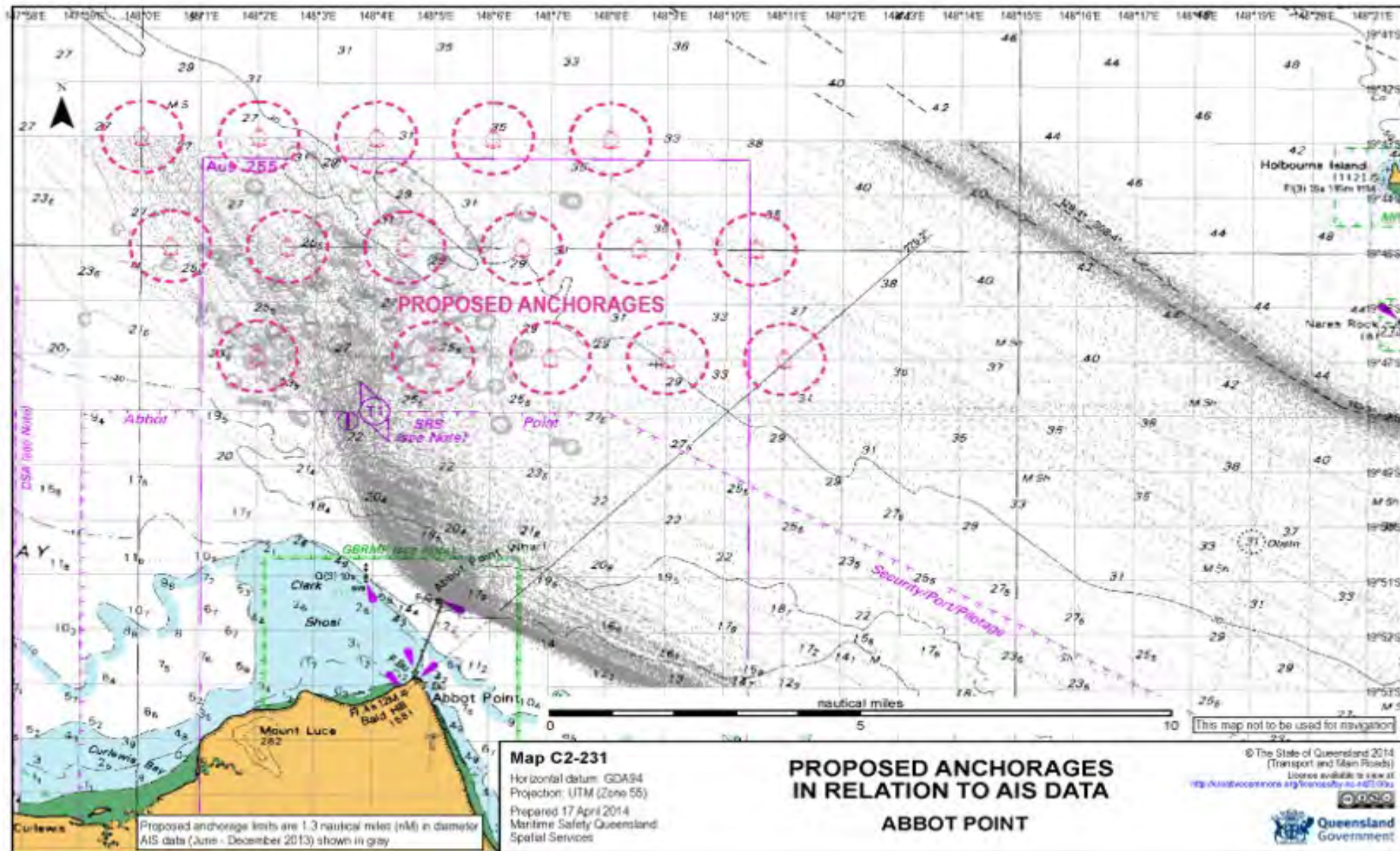
A number of the responses raised concerns more related to anchor management practices, rather than the location of the anchorage. These include:

- minimising the area affected by ships anchoring
- constrain anchoring to heavily used anchorages with least environmental risk – those areas that are already disturbed
- access to and through the anchorage area remains open
- utilise deeper anchorages the most to minimise effect on fishing grounds

The following anchorage management practices will be adopted in order to address any concerns

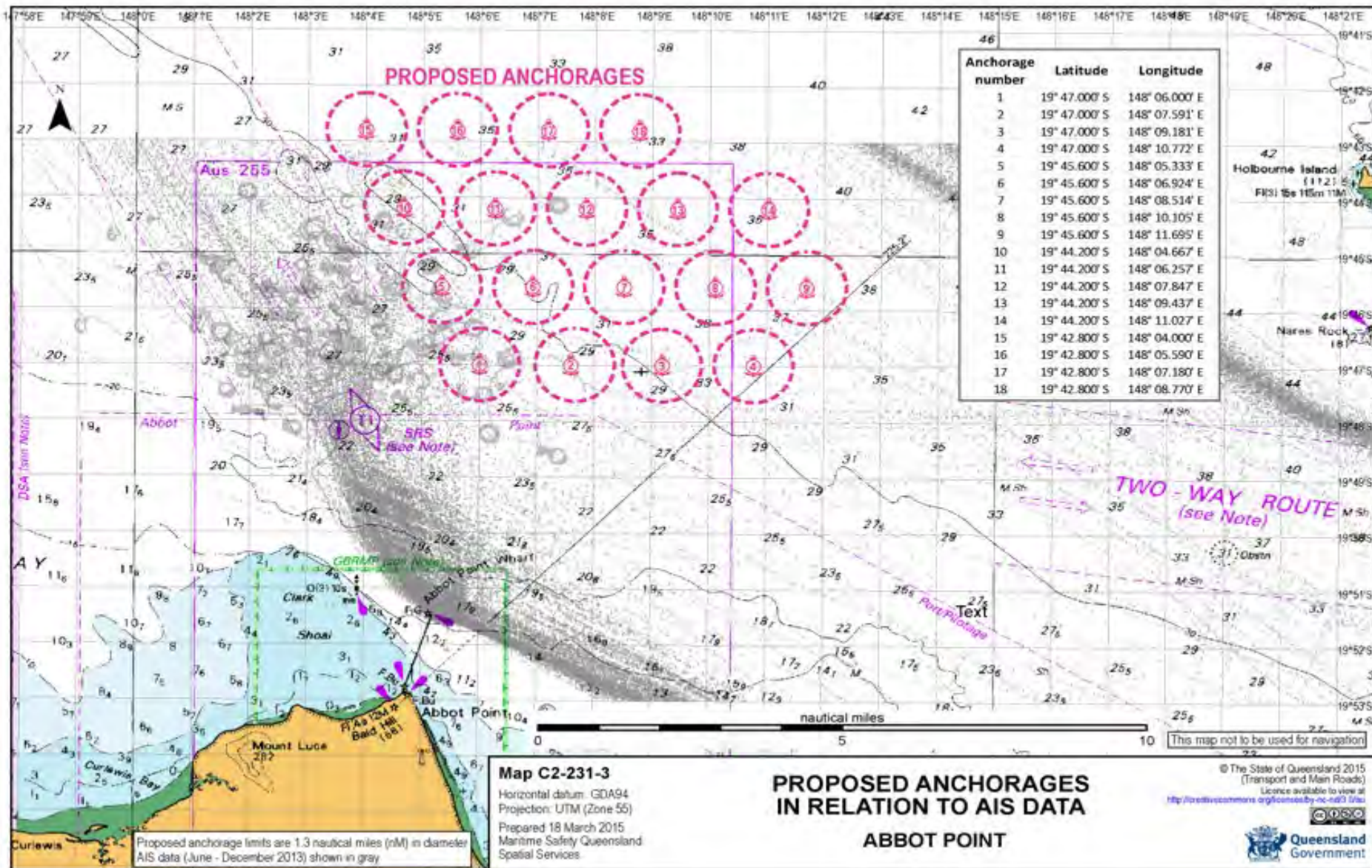
- the distance between anchorages will be kept to a safe minimum separation in order to minimise the area effected by ships anchors
- coordinates of the centre of the anchorage area will be provided to ships planning on going to anchor, this will limit the area effected by the anchor drop around the centre of the anchorage circle
- no access restrictions will be implemented over the anchorage area.
- Abbot Point VTS will designate the anchorage to the ship and will concentrate on using the deepest anchorages

# Appendix A – Initial anchorage concept design 2015



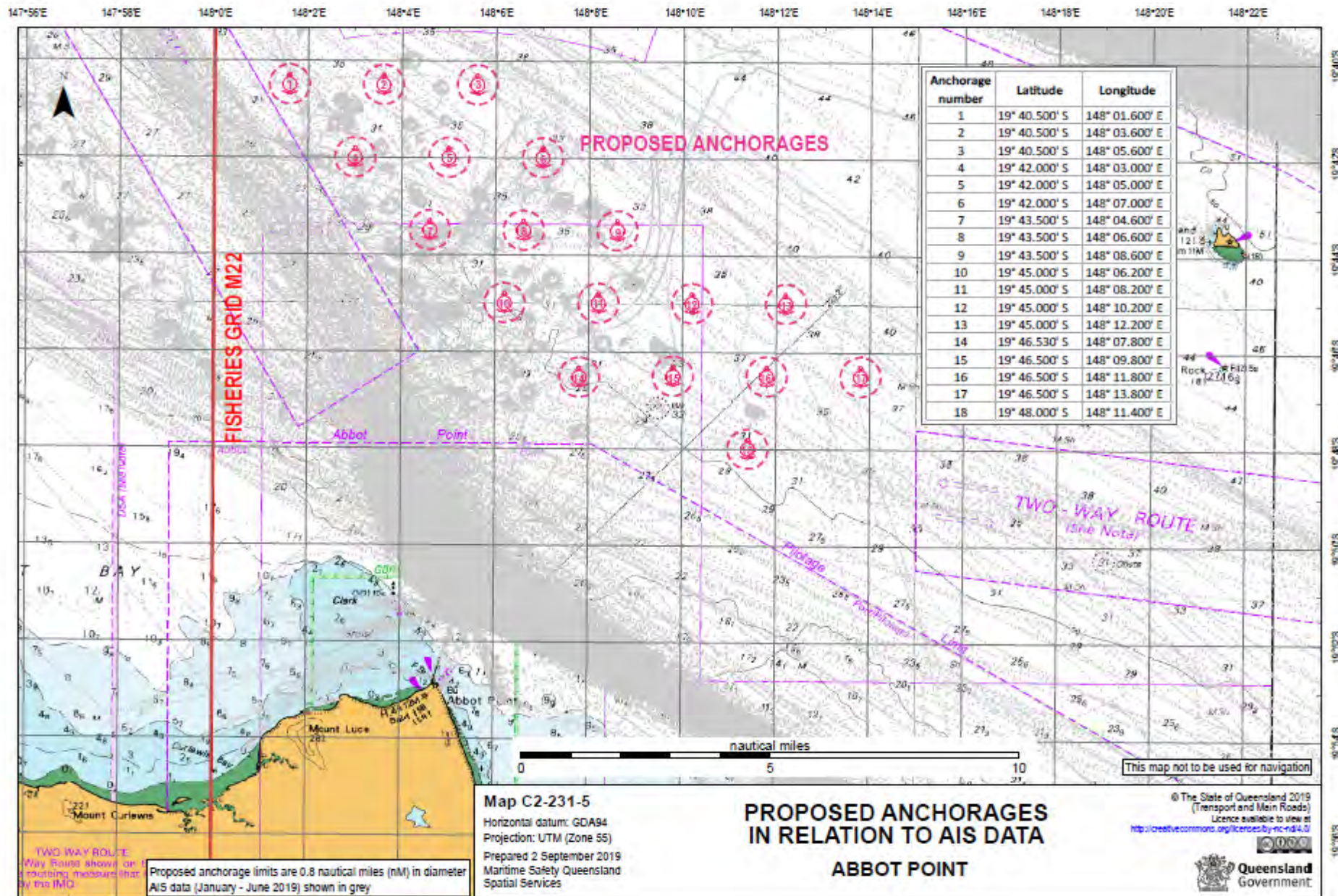


# Appendix B – Revised anchorage design from 2015 consultation







# Appendix C – Proposed anchorage design 2019



## Appendix D – Stakeholder Consultation

<b>Stakeholders Consulted</b>
Australian Maritime Safety Authority
Australian Hydrographic Service
Coastal Pilotage Providers
Department of Agriculture, Fisheries and Forestry
Department of the Environment
Geoscience Australia
Great Barrier Reef Marine Park Authority
Maritime Industry Australia Limited
Moreton Bay Seafood Industry Association
Shipping Australia Limited
North East Water Space Management Working Group
Neil Morgensen
Juru People Aboriginal Corporation
North Queensland Bulk Ports Corporation
Queensland Resources Council
University of Wollongong

## Appendix E – Feedback from Consultation

Stakeholder	Feedback	Issues/Highlights	MSQ Response
University of Wollongong Australia	<p>Provided feedback in document and attached research report.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>AbbotPointAnchorageSubmissionFinal_</p> </div> <div style="text-align: center;">  <p>Steeleetal_2017.pdf</p> </div> </div>	<p>Supportive – Yes</p> <p>Concerns:</p> <ul style="list-style-type: none"> <li>• Not clear how sensitive areas will be assessed.</li> <li>• No mention of projected increase in vessels due to development.</li> <li>• Prefer the anchorage layout proposed in 2015.</li> </ul>	<p>MSQ conducted full high-resolution seabed mapping of the anchorage. Grab samples from several locations over the proposed anchorage area indicated a predominantly mud seafloor. The proposed design and location considered productive fishing areas, potential seagrass areas, turtle hatchery, proximity to coral reefs and historic wreck. GBRMPA advised that biodiversity values for which the Great Barrier Reef is recognised will not be significantly affected.</p> <p>The number of anchorages was based on the maximum number of vessels anchored off Abbot Point over the past 5 years (2015 figures) That number has not been exceeded. This is currently 3 times the average number of vessels waiting off Abbot Point to load.</p> <p>The area to the east of the proposed anchorage has been identified as having potential for additional anchorages if required.</p> <p>Location of current design very similar to previous model. Trawl fishermen had previously expressed concerns about being excluded and with the current</p>



			design, usage and practices MSQ sees no reason why they should be.
Queensland Resources Council	<p>Thank you for the opportunity to provide a submission in response to the two consultation papers, implementation of dedicated ship anchorage at Abbot Point and the draft guideline for vetting bulk carriers traversing the Great Barrier Reef.</p> <p>As you know, the Queensland Resources Council (QRC) is the peak representative organisation of the Queensland minerals and energy sector. QRC's membership encompasses minerals and energy exploration, production, and processing companies, and associated service companies. The QRC works on behalf of members to ensure Queensland's resources are developed profitably and competitively, in a socially and environmentally sustainable way.</p> <p>Queensland's ports are a gateway to domestic and international trade, connecting our resource exports to the world. As small open economy, much of Queensland's economy is underpinned by maritime trade. While it is economically essential that shipping routes through the Great Barrier Reef (GBR) remain open, QRC members also support protection of the Great Barrier Reef's outstanding universal value. QRC members recognise that the Great Barrier Reef is designated a particularly sensitive sea area by the International Maritime Organisation (IMO).</p> <p>Balancing environmental protection and responsible economic development are not mutually exclusive. A sophisticated risk management approach has evolved to regulate those activities working alongside the Great Barrier Reef (GBR) and QRC views these two MSQ's proposals as part of this regulatory evolution. QRC has appreciated the opportunity for the resource sector to remain involved in the planning and implementation of GBR policy and actions.</p> <p><b>Dedicated ship anchorage at Abbot Point</b></p>	<p>Supportive – Yes</p> <p>Highlights</p> <ul style="list-style-type: none"> <li>• Are in support of designated anchorage points at Abbot Point.</li> <li>• Also support the proposed design in Appendix C.</li> <li>• Noted quality of the consultation paper with respect to the acknowledgement of stakeholder issues.</li> </ul> <p>Comments</p> <ul style="list-style-type: none"> <li>• May need to revisit the accuracy of the 2013 Synthesis report from GHD as the 2012 expectations may have changed over the last 8 years.</li> <li>• Recommendation that MSQ consider excluding trawling activity from a 2-cable circumference from the designated anchorage point.</li> <li>• QRC have other queries regarding the selection and allocation of the anchorage points</li> </ul>	<p>Currently Abbot point is operating at 32mtpa. Maximum capacity is 50mtpa. It would take about 2 years to construct any new capacity at Abbot Point.</p> <p>The number of anchorages was based on the maximum number of vessels anchored off Abbot Point over the past 5 years (2015 figures) That number has not been exceeded. This is currently 3 times the average number of vessels waiting off Abbot Point to load.</p> <p>The area to the east of the proposed anchorage has been identified as having potential for additional anchorages if required.</p> <p>Trawl fishermen had previously expressed concerns about being excluded. The current design, usage and practices will provide the trawl industry with more certainty on ship anchorage sites resulting in safer operations. The anchorage management plan aims to concentrate use to the a small number of the deeper anchorages. This methodology was put forward at a University of Wollongong workshop on anchorage management as providing the best environmental outcome as it results in the least long-term</p>



	<p>As an active member of the Reef 2050 Long-Term Sustainability Plan Partnership Group, and Reef Advisory Committee, which developed the Reef 2050 Sustainability Plan, QRC supports MSQ's objective to designate anchorage points at Abbot Point as allowing a more orderly and predictable use of the waterway by existing and future ship traffic. QRC supports MSQ's proposal to implement the proposed anchorage design described in Appendix C.</p> <p>QRC congratulates MSQ on the quality of the anchorage consultation paper which does a good job of presenting the earlier consultation processes and how the amended proposal seeks to address the issues that were raised by stakeholders. In particular, QRC supports the amendment to the proposal to prioritise the use of deeper water anchorages. Selecting a deeper anchorage should reduce the risk of impacts on seagrass, which occur in the broader vicinity of Abbot Point. Similarly, selection of deeper anchorages should help to reduce the impact of vessel lighting.</p> <p>QRC notes that the initial development of the anchorage proposal in 2015 was informed by the July 2013 Synthesis report from GHD, Ship Anchorage Management in the Great Barrier Reef World Heritage Area. That report in turn quoted a 2012 PGM study which predicted an increase in shipping from around 4,000 a year to over 10,000 by 2032. Table E-1 in the GHD report suggests that Abbott Point may see growth in ship visits of up to 11% pa over the 20-year period from 2013- 2032. As we are now eight years into that forecast period, it may be worth revisiting how accurate those 2012 expectations have been.</p> <p>The MSQ consultation paper calls out on page 2 that with mining approvals now granted for the Galilee Basin as one of the reasons for revisiting the issue of anchorage. To date, the sole mining project approved to start construction in the Galilee is contemplating a ramp up towards generating an extra 10 million tonnes per annum of exports through Abbot Point. QRC suggests this is more of an</p>		<p>cumulative effect on the sea floor habitat.</p> <p>This practice will also mean the other anchorage areas will be free of shipping for a lot of the time and able to be safely accessed for fishing.</p>
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	<p>incremental than a step change in operational volumes for the Port.</p> <p>While QRC understands the desire of the trawling industry to retain access to as large an area as possible, QRC suggests that having fishing boats trawling in close proximity to anchored bulk ships may introduce safety risks. QRC recommends that MSQ consider excluding trawling activity from a 2-cable circumference from the designated anchorage point. That should provide 1.2 to 1.6 nautical miles of clear water access between the anchorage points that, subject to direction from Abbot Point VTS, remain open for trawling access.</p> <p>QRC would be interested to understand the selection of the anchorages in more detail, particularly with reference to the outstanding universal values of the World Heritage Area. The three MSQ proposals assume that a limited number of set locations is better environmentally than a broader less confined anchorage pattern. This assumption could be true but repeated impacts vs occasional less intense impacts may not necessarily be better. It would be worth examining the issue in the specific context of the seabeds off Abbot Point.</p> <p>QRC would also be interested to understand how the Abbot Point VTS allocation of anchorage will work if there are more ships than anchorage points. Given that the proposal identifies 18 dedicated anchorage points, this might just be a hypothetical question, but it might be worth the MSQ management practices contemplating such an eventuality? QRC members are interested to understand the implications for the flow of local shipping traffic.</p> <p>A similar operational question is whether Abbot Point VTS has a sufficient line of sign through to the Port's queuing schedule? It would seem sensible when allocating anchorage points to have the ships that have to wait the longest for a berth are anchored in the deepest and most distant anchorage points from the Port.</p>		
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<p>North Queensland Bulk Ports Corporation</p>	<p><b>Dedicated Ship Anchorage at Abbot Point</b></p> <p>With regards to the proposed location and arrangement of the anchorages and their design, it is important that MSQ ensure that they are located away from ecologically and culturally sensitive environments. Abbot Point has significant seagrass areas and therefore the deeper the water for anchorages, the less risk posed to these sensitive marine habitats. Beaches at Abbot are also used by turtles for nesting so these should also be considered in the context of impact.</p> <p>It is important to define and communicate transparently, a process by which environmental and cultural heritage values are considered in the context of anchorages. It would be useful to understand, or for MSQ to confirm, if an environmental and cultural heritage assessment has been undertaken for the planning of the proposed anchorages. That is, has there been adequate and comprehensive assessments to support location and arrangement of anchorages as proposed.</p> <p>Operationally, NQBP is in support of dedicated anchorage locations, providing better awareness and tracking of vessel(s) location when in the anchorage area.</p>	<p>Supportive – Yes</p> <p>Comments:</p> <ul style="list-style-type: none"> <li>• NQBP are in support of dedicated anchorage locations.</li> <li>• It is within a sensitive marine habitat, and deeper water for anchorages would be preferred.</li> </ul> <p>Questions:</p> <ul style="list-style-type: none"> <li>• Has an environmental and cultural heritage assessment been undertaken?</li> </ul>	<p>The proposed design and location considered productive fishing areas, potential seagrass areas, turtle hatchery, proximity to coral reefs and historic wreck. Small grab samples of the sea floor show it to be primarily sandy mud with areas of shell grit. GBRMPA advised that biodiversity values for which the Great Barrier Reef is recognised will not be significantly affected.</p> <p>The Native Title holders for the Abbot Point area – The Juru people were included in the consultation process. MSQ is advised this meets the duty of care requirements for Cultural Heritage.</p> <p>The proposed anchorage site(s) is not based within a Federal Court Native Title determination area. The proposed anchorage site(s) can proceed as a “low-impact” action, in accordance with TMR Native Title policy.</p>
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