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**OUR REF:**

**SUBJECT:** Marlborough District Council, Tory Channel  
Navigational Risk Assessment – review

## Background and summary

1. On 2 April, the Marlborough District Council Regional (MDC) Harbourmaster provided MNZ with a copy of the MDC-commissioned Tory Channel Risk Assessment report (MDC report), requesting our views.
2. The MDC report identifies 67 different threats covering nine broad hazard areas. This report is one of at least two planned reports assessing navigational risks in the Tory Channel – the other has been subsequently commissioned by KiwiRail yet not completed/provided to MNZ.
3. As well as assessing risks in Tory Channel, the MDC report will be a foundation for further engagement with key stakeholders to assess changes to practices in Tory Channel.
4. The MDC report makes 37 recommendations – 12 short term, 22 medium term and 3 long or longer term.
5. In receiving this information, MNZ's role is primarily as regulator. We are also one of the key stakeholder's who MDC would like to work with to reach risk treatment consensus.
6. This paper assesses the identified risks that have significance to MNZ achieving its mission of safe, secure and clean seas and makes recommendations how to treat these risks. The initial part of this assessment is – do they require addressing in the very short term, i.e. they cannot wait until MDC is able to get stakeholders' views or consensus?
7. In the absence of any risks requiring immediate attention, the paper recommends further engagement with the harbourmaster and key stakeholder group as the best way to progress the MDC report's findings.
8. This paper does not consider any additional matters from a Port and Harbour Marine Safety Code (P&HMSC) perspective. The P&HMSC groups may be required if consensus is not reached by stakeholders.
9. The Harbourmaster is exploring whether and how to communicate with the key stakeholders and use this risk assessment as a vehicle to find a common position. The report has been provided to MNZ, Port Marlborough NZ (PMNZ) and KiwiRail.
10. It's assumed that stakeholders consider the MDC report before 30 September.

11. A final assessment would more appropriate once the KiwiRail risk assessment is completed. This report was due prior to the COVID-19 lock-downs, but not yet available. Until such time, see the Recommendations to ELT section below.
12. The Safety and Response Systems and Maritime Systems Assurance groups have been consulted in reaching the conclusions in this memo. The consultation has not identified any areas of concern, beyond those raised in the MDC report.

### **Summary of recommendations (and conclusions)**

13. The risk assessment report categorises recommendations into short, medium and long term priorities.
14. The assessment rates existent risks by using a five by five likelihood/consequence matrix. Of the 67 identified risks, 28 are in the highest category – very high. The rest are either high or medium risk. No risks below medium were reported.
15. Each risk and recommendation has been analysed in writing this memo, however only the 28 very high risks are described in detail in this memo.
16. In considering the MDC report, it is observed that each hazard is managed by multiple controls which individually contribute to risk mitigation. This analysis assumes that all risks have been identified in the MDC report.
17. The MDC report identifies a number of matters of urgency, including a perceived constraint for timing any KiwiRail newbuild campaign changes e.g. any design modifications would need to be made before certain stages of the programme. The restrictions in cruise ship traffic, and associated lack of demand for pilotage services diminish the urgency of these two findings.
18. The MDC report identifies two hazards very high risks involving large ships – the risk of collision, and grounding. I do not consider that either of these risks require immediate action. They are covered in detail below.

### **Very high risks**

19. The MDC report identifies 28 very high risks. 27 risks are of grounding and one for collision hazard.
20. The grounding risks are summarised as follows:
  - a) Pilots – maintaining competent pilots (risk #4). This risk considers that no licensed pilots will be available. There is no significantly elevated short term risk due to the prohibition of cruise ship traffic and other cargo ship traffic not normally proceeding through Tory Channel. The sole pilot's licence is valid until 2024.
  - b) Weather – tides and currents (#5). The MDC report proposes the completion of a new tidal survey and provide real time tidal information. Given the reported variances between actual and predicted tides, it seems reasonable to further analyse the cost and benefit of improvement. In the short term, ferry masters are aware of the variances and can be assumed to take account of this.
  - c) Pilots – passage plans (#6). This risk considers integrating pilots' knowledge with the ships' passage plan. This risk is eliminated by no vessels requiring a pilot expected due to the cruise ship, log ship and bulker restrictions through Tory Channel

- d) Pilots – increase in traffic (#7). This is a longer term risk that is not present in the short term due to reduction in traffic – winter months, cruise ship restrictions etc.
- e) Ferries – new ferries (#8). This is a longer term risk that is not present in the short term due to new ferries due in 2024
- f) Weather – changes in weather (#9). This is a longer term risk due to the longer term nature of climate change
- g) Pilots – Change impacts on Northern Entrance (#10). Monitor this impact when considering changes to Tory Channel traffic movement. Minimal short term impact, due to the reduction in Port Marlborough traffic expected until at least next cruise ship season
- h) Emergency Preparedness – Mass evacuation of cruise ships (#11). This is a longer term risk due to restrictions on cruise ship traffic. Ferry mass evacuation is exercised as part of the national response exercises
- i) Cruise ships – increasing numbers (#12). This is a longer term risk due to the absence of cruise ships until the 20/21 season at the soonest
- j) Ferries – larger ferries (#20). This is a longer term risk that is not present in the short term due to larger ferries not due until 2024
- k) Ferries – Speed in the Northern Entrance (#21). The MDC report encourages the ferry companies to consider wake requirements in the Marlborough Sounds. The MDC report has been made available to ferry companies
- l) Ferries – assuming that Tory Channel is closed to ferry traffic (#22). The MDC report recommends a control to introduce a forum between Harbourmaster and ferry operators. Practically this could take place following stakeholder engagement.
- m) Aquaculture – new farms introduced (#28). The Resource Management Act processes should be allowed to ensure that existing interests – i.e. navigation are considered appropriately in event of new discretionary activity being considered
- n) Aquaculture – new farms introduced (#29). As for #28 above the RMA considers discretionary activity.
- o) Cruise ships – increasing numbers and size of cruise ships (#30). As with #12 above, this is a longer term risk due to the absence of cruise ships until the 20/21 season at the soonest
- p) Ferries – Navigator competence (#31). In the absence of specific examples, MNZ's administration of seafarer competence is assumed to be appropriate
- q) Aids to Navigation – visual aid adequacy (#32). The MDC report suggests that the adequacy of AtoNs is reviewed. In the absence of any suggestions that they are inadequate it is appropriate to consider this as part of stakeholder engagement.
- r) Passage planning – effect of tides on wheel over positions (#33). As with #5 above.
- s) Passage planning – GPS spoofing (#34). This recommendation calls for a cyber risk assessment, rather than any specific risk existing that need controlling.
- t) Ferries – propulsion break-down in Cook Strait lee shore (#44). Class society rules and MNZ's administration of machinery is assumed to be appropriate to ensure critical propulsion performance

- u) Ferries – propulsion break-down in Tory Channel (#45). MNZ’s administration of seafarer competence is assumed to be appropriate to ensure critical propulsion performance
  - v) Cray pots – interfering with large ship navigation (#46). There is no short term need to enhanced controls of cray pots causing the grounding of a ferry
  - w) Ferries – limited tug availability (#50). It is suitable to consider this risk with the relevant stakeholders including Port Marlborough NZ Ltd, during engagement
  - x) Tugs – tug masters trained in escort mode (#51). It is suitable to consider this risk with the relevant stakeholders including Port Marlborough NZ Ltd, during engagement
  - y) Ferries – navigation systems failure (#53). MNZ’s administration of navigation systems is assumed to be appropriate to ensure critical propulsion performance
  - z) Navigation – Limited leading lights and other AtoNs (#54). The MDC report suggests that the adequacy of these AtoNs is reviewed. It is appropriate to consider this as part of stakeholder engagement
  - aa) Pilots – insufficient familiarisation/integration time between boarding point and Tory Channel (#57). As with #30 above, this is a longer term risk due to the absence of cruise ships until the 20/21 season at the soonest. Any changes to the boarding point would need considerable time to effect due to the risks, stakeholder and Rule amendment processes.
21. None of the grounding risks are of such a short term nature that they need to be addressed immediately i.e. before the KiwiRail report is expected and stakeholders could be expected to consider the MDC report’s findings.
  22. The very high risk of a collision concerns navigation – the variances between the passage plans of ferry companies and pilots (risk #52).
  23. Any consideration of changes to passage plans and the approach to passage planning should involve a management of change process to avoid unintended consequences.
  24. This collision risk, whilst existent, needs to be thoroughly worked through with the relevant stakeholders including ferry operators and pilots before making changes. Implementing the actions recommended without a thorough management of change process risks exacerbating the risk of collision. I do not recommend implementing any change without a high level of engagement.
  25. None of the very high risks require treatment that could not be deferred until after 30 September 2020 due to the lack of apparent immediacy of each risk, or the benefits of additional controls, that outweigh their costs, not being apparent.

#### **Other risks of note**

26. The risks of collision between ferry and recreational ship are identified as less than very high. These risks are lessened by the seasonal reduction in recreational traffic in the winter months.

#### **Conclusions**

27. In spite of 28 very high risks being identified in the MDC report, none of the risks are of such immediacy that they could not be deferred until after 30 September

2020, by which time sufficient stakeholder engagement should have been achieved to have evaluated the risks and considered appropriate controls.

### **Recommendation to ET**

1. **Note** the contents of this memo and the recommendations of the attached independent Tory Channel Risk Assessment Report.
2. **Agree** to MNZ engaging further with the Marlborough Harbourmaster, and key Tory Channel stakeholder group – at the Marlborough Harbourmaster’s invitation.
3. Maintain a watch and **note** any further information concerning Tory Channel navigational safety, including the outcome of stakeholder engagement and the KiwiRail risk assessment and act accordingly.
4. **Agree** that MNZ takes no further action regarding the MDC report’s recommendations until after either, receipt of the KiwiRail Tory Channel Risk Assessment report, receiving results of key Tory Channel stakeholder engagement into the MDC report, or 30 September 2020, whichever occurs soonest.
5. **Agree** that if consensus cannot be met through the key stakeholder group, recommend that the harbourmaster engage with the Port and Harbour Marine Safety Code Steering and Working groups to consider the MDC report’s findings.