

14 November 2018

## Questions from the CRL Decision-making Committee for consideration during the expert conferencing sessions and facilitated meeting

As outlined in DMC Minute 5, the DMC may direct the participants in the expert conferencing sessions and facilitated meeting to consider specific questions. Below outlines a list of questions the DMC would like the participants to consider. The DMC notes the questions listed below do not in any way limit any other issues identified by the participants that they will also want to consider at the expert conferencing sessions and meeting.

### Session 1: Marine Ecology

1. Marine Biota:
  - a. How typical of the area off-shore east coast Great Barrier is the Northern Disposal Area (NDA) and what is the likelihood of rare and vulnerable ecosystems/threatened species – benthic biota, fish, marine mammals being found in the NDA that are not found elsewhere in the vicinity?
  - b. What is the spread of ecologically significant impact of the disposal at the NDA to date – e.g. a benthic mortality zone within a 500m radius of the centre?
  - c. At what distance from the centre of the NDA is there no ecologically significant impact?
  - d. What thickness of sediment and rate of sedimentation causes significant mortality to the benthic ecosystems of the NDA?
  - e. What is the fish population of the NDA?
  - f. What risks are there to threatened fish species from the disposal of sediment in the NDA?
  - g. What risks are there to customary or commercial fishing interests from the disposal of sediment in the NDA?
  - h. What are the risks from invasive organisms within the dredged material:
    - i. At the NDA;
    - ii. At coastal sites in eastern Great Barrier and the Coromandel; and
    - iii. En route to the NDA.
  - i. What is the likelihood of reproductive stages of invasive species reaching coastal sites?
  - j. Recommended monitoring/conditions to measure the spread of the impacted benthic area and prevent impact beyond the NDA boundary?

### Session 2: Oceanography and sediment dispersal

- a. What is the level of confidence in the monitoring of plume dispersal to date – using ADCP technology?
- b. Has the model been based off the most conservative material?
- c. How will plume dispersal be impacted by high sea states and wind direction?
- d. What are the maximum sea state and wind direction limits at which the spread of the plume/dispersal is contained within the NDA?
- e. Is there agreement with the modelling of currents/dispersion of reproductive stages of invasive organisms (MetOcean modelling)?

**Session 3: Planning and conditions**

- a. Consider the reports and recommendations from NIWA on their review of the monitoring programme and the information in Bioreserches report.
- b. Consider the report and recommendations from the DMC Oceanographer (once it is received).
- c. Consider all of the Planning expert's recommendations and the recommendations from the three Department of Conservation experts.

**Session 4: Facilitated meeting on marine mammals**

- a. What is the likely presence of marine mammals in the NDA and within close vicinity?
- b. What is the likely presence of marine mammals along the barges travel route(s) to the NDA?
- c. What are the risks to marine mammals from the dumping activity?
- d. Is the current acoustic monitoring methodology undertaken protective of marine mammals?
- e. What are effective monitoring methodologies and conditions considering the noise generated by the activity and the likelihood of dumping during the hours of darkness?