#### BEFORE THE CANTERBURY REGIONAL COUNCIL

In the matter of: Applications by Lyttelton Port Company Limited to the

Canterbury Regional Council to channel deepen dredging at

Lyttelton Port

CRC172455 - coastal permit to dredge (disturb the seabed) and

deposit material on the seabed

CRC172456 - coastal permit to discharge contaminants and

deposit material on the seabed

CRC172522- discharge contaminants into water associated

with channel deepening dredging

CRC172523 – discharge permit to discharge contaminants into

water associated with maintenance dredging

## 5<sup>th</sup> Minute of the Commissioners

# **Channel Deepening Consent Conditions**

 Our comments comprise a mix of substantive, and drafting issues. For convenience, we deal with both types of issue in the sequence in which they occur and by reference to the word label or number under which they appear.

## 2. Definitions

- 2.1 What are the 'relevant Plan conditions' in line 2 of the Certification definition?
- 2.2 Should TSS be defined?

## 3. Conditions

- 1.5: The words "shall not be concentrated ....disposal ground; and it"; are superfluous
- 1.6: The phrase "at least two stages" implies that channel deepening may be undertaken in multiple stages. Why is the condition so worded; and should not the 'cubic metre' limit be expressed as "provided not more than a total....is removed'?
- 4.3 The opening words "To achieve the purposes of the DMP" add nothing and are therefore superfluous? (This applies equally to other similar plan conditions where a similar phrase is used)
- 4.3.7 For clarity should "in the harbour" be added?

- 5.3.4 Should this clause begin "The information protocols concluded with the Department of Conservation...", and the words "during dredging" be removed?
- 7.6.4 Should the last 2 lines read "a summary of how real-time turbidity monitoring is to be readily accessible..."?
- 7.8 and 7.9 Both these conditions contain reference to the concept of an "exceedance", and 7.9.2 refers to "other environmental factors". See our commentary later pertaining to these two concepts.
- 7.10.1 "With" should be "within"?
- 7.10.4 "Ceasing" should be "cessation", and "considers" should be "determines" (since a determination is required, not just a consideration)?
- 8.19 What is the rationale for a seven year gap before a baseline monitoring reevaluation is considered, and is there evidence that justifies seven years, or is it an arbitrary figure?
- 8.20 Is this condition appropriate in that it implies further monitoring must "fit in" with the intended commencement date of the next dredging stage (rather than the reverse)? If it remains as drafted, what does the phrase "sufficient time" mean and how does it assist matters?
- 9.0 The Panel has fundamental concerns about this condition as a whole. We shall set out our concerns both generally, and with reference to a number of the sub-condition paragraphs. Our principal concerns are:
  - That there is no reference to the modified IFD model.
  - Key concepts are not defined at the outset of the condition including: intensity, the F- D relationship (as modified by Dr Fox), and exceedance.
  - The various parts of condition 9 are not logically ordered; for example 9.4 to 9.8 deal with certification of an intensity/duration table, a trigger report, the monitoring stations to be used during dredging, statistical filtering and the use of filtered data, respectively all of which seem to relate to the set-up or establishment of the management regime.
  - Adaptive management concepts in 9.10 include a "location" and a "relevant" monitoring station both of which require elucidation.
  - Reliance upon the revised Environmetrics Australia report particularly in 9.3, while justified, cannot become a substitute for conditions that set out the essence of the methodology (we agree with Andrea Rickards evidence that conditions need to be succinct, but also selfcontained, well structured and enduring
  - By way of example, we proffer some suggestions in relation to the starting point – the key definitions:

"Intensity" is the concentration of turbidity (suspended sediment) in water in NTU at a specific monitoring location as predicted by a combination of baseline monitoring and hydrodynamic modelling of sediment plumes from dredging activity.

"Allowable Duration" is the maximum number of hours in a rolling 30 day period during which the intensity prescribed at a monitoring location in relation to management tiers 1, 2, or 3 may be exceeded without a management action being required.

"An Exceedance" means that the intensity of a turbidity trigger prescribed at a monitoring location in relation to either tier 1, 2 or 3, and the allowable duration prescribed for that same tier, are both exceeded. The exceedance continues until either the turbidity trigger intensity, or the allowable duration, become compliant.

9.2.1 We also proffer a suggested redraft of this condition as follows:

"The intensity of the turbidity triggers for each telemetered turbidity monitoring location shall be set by calculating from time series baseline turbidity data for that location a 80, 95 and 99 turbidity percentile measured in NTU, and adding to those percentiles an allowance for dredging turbidity as predicted by hydrodynamic modelling for the monitoring location in total suspended solids (TSS), following conversion of TSS to NTU."

(Definitions of "time series baseline turbidity data", "hydrodynamic modelling" by linking it to the MetOcean reports, and "TSS" are needed; but probably in the general definitions section.)

- 9.10 What does a "location" mean; and is a definition required?
- 9.12 What does "the same locality" mean; and is a definition required? Is the phrase "an extraordinary natural event" apposite? For example is a plume from turning basin activity involving tugs and propeller wash from a vessel a natural event?

Is it best practice to use an advice note to explain "an extraordinary natural event", in lieu of a definition?

- 10.2.3 Should this condition read "Assess monitoring data to ensure it meets requirements and is being continually gathered"?
- 10.2.4 Should this condition read "Ensure that the dredging contractor has access to all monitoring information and that adaptive management actions are being initiated and implemented in a timely manner"?
- 11.4.1 11.4.3 Would these provisions be better worded "A person knowledgeable and reputable with regard to" ...mahinga kai and tikanga Maori, respectively?
- 11.6.6 Is the reference to "two" other members correct, give the upper limit of six?

- 11.7.1 11.7.2 These provisions limit the role of the TAG to evaluating the monitoring programme detailed in the EMMP with regard to location and parameter amendments, and seemingly as to whether exceedance causation is understood and working, respectively. Should the role be so narrowly defined and if so, why?
- 113.6.5 "Shall" in line 2 should be deleted and an "or" is required in line 6.
- 13.7 An "as" is required in line 2.
- 14.2.5 "Or" should read "and".

# **Maintenance Conditions**

- 4. Many of the issues raised above apply equally to these conditions. We do not repeat such concerns here with reference to the corresponding condition.
  - 1.4 At the hearing Mr Atkinson pointed out that "in situ" volume is inapt, and should be deleted, with "hopper" cubic metres substituted in line 3. (Alternatively, if the in-situ definition is preferred, the conversion from hopper volumes to in situ volumes could be made by using an empirically determined bulking factor.)
  - 7.15 The phrase "cumulative duration "seems inapt to describe what is simply a Tier 3 exceedance (assuming an exceedance definition is incorporated). The reference to condition 9.2 is also in error.
  - 7.20 Should the reduction decision also be notified to the consent authority by LPC?

# **Other Matters**

- 5. The Addendum to the Officers Report dated 9 May 2017 at [20] suggested an alternative method for defining the channel deepening consent duration to provide increased certainty. Does LPC have a response to the relevant discussion at [20-23]?
- 6. We intend to formally close the hearing upon receipt of a response to this Minute.

Issued by the Hearing Commissioners
Sir Graham Panckhurst –Chair, Peter Atkinson and Raewyn Solomon

Dated: 19 May 2017