1.0 TECHNICAL MEMO – AIR QUALITY

To:	Stacey Sharp & Blair Masefield, Beca (consultant planners)
From:	Suzanne Cawood, Environmental Scientist, Beca Limited Mathew Noonan, Senior Associate Environmental Scientist, Beca Limited
Date:	02/08/2023

1.1 Statement of Qualifications and Experience

My name is Mathew Gregory Noonan. I currently hold the role of Senior Associate Environmental Scientist at Beca Ltd. I have been employed by Beca since 2009.

I have over 23 years of experience as an air quality consultant, primarily assessing the health, environmental and amenity effects of discharges to air from industrial and infrastructure sources.

I hold bachelor's degrees in Mathematics and Mechanical Engineering, and a Master of Science in Environmental Science from the University of Auckland. I also hold a post Graduate Certificate in Biostatistics from the University of Sydney. I am a member of the Clean Air Society of Australia and New Zealand (CASANZ).

Some of my relevant experience in assessing the air quality effects from proposed activities that have the potential to generate dust discharges include.

a) Willowbank Quarry

b) Waihi Gold Mine – Waihi North Project

c) Macraes Gold Mine – Life of Mine Extension MP4 project

d) Taiko managed fill

e) Clevedon Quarry

f) Cromwell Quarry

g) George Weston Flour Mill

I have also represented Environment South with regards to review of the proposed discharges to air from Puke Coal Ltd coal mine and clean fill, and Waikato Regional Council with regards to review of the proposed discharges to air from AB Lime landfill.

I confirm that the statements made within this memorandum are within my area of expertise

and I am not aware of any material facts which might alter or detract from the opinions I express. Whilst acknowledging this consenting process is not before the Environment Court, I have read and agree to comply with the Code of Conduct for Expert Witnesses as set out in the Environment Court Consolidated Practice Note 2014. The opinions expressed in this memorandum, are based on my qualifications and experience, and are within my area of expertise. If I rely on the evidence or opinions of another, my statements will acknowledge that.

2.0 APPLICATION DESCRIPTION

Applicant's Name:	Northport Limited (Northport)
Activity type:	**Land Use (s9), Coastal Permit (s12), Water Permit (s14), Discharge Permit (s15)**
Purpose description:	Northport seek to construct, operate, and maintain an expansion of the existing port facility to increase freight storage and handling capacity, and transition into a high-density container terminal.
Application references:	Northland Regional Council: APP.005055.38.01 Whangārei District Council: LU2200107
Site address:	Ralph Trimmer Drive, Marsden Point, Whangārei

3.0 SITE AND PROPOSAL DESCRIPTION

3.1 Reference documents

The following application documents have informed this technical memorandum.

Application

- Assessment of Environmental Effects entitled: *Application for resource consents for the expansion of Northport*, prepared by Reyburn & Bryant, dated 6 October 2021 (henceforth referred to as **AEE**)
- Design Drawings entitled: *Northport – Proposed Reclamation and Dredging*, prepared by WSP, sheets C01 – C04, plan set dated 18 August 2022
- AEE Appendix 5. Draft Construction Environmental Management Plan, prepared by Enviser Limited (Enviser), dated October 2022, version Draft (henceforth referred

to as **DCEMP**).

- AEE Appendix 21 entitled Air Quality Assessment – Northport Proposed Eastern Expansion, prepared by Pattle Delamore Partners Ltd (PDP), dated 5 August 2022, version Final (henceforth referred to as **AQA Report**).

Section 92 Request for Information

- Further information response prepared by Reyburn and Bryant, dated 21 February 2023 (henceforth referred to as **s92 Response**).

- Appendix 12 – PDP Air Quality Letter: Response to Section 92(1) (RMA) Information Request in regard to Resource Consent Application APP-005055.38.01 and LU2200107 (henceforth referred to as **PDP s92 Response**).

- Draft Supplementary Information response prepared by Reyburn and Bryant, dated 20 June 2023 (henceforth referred to as **Draft RFI Response**)

Draft Consent Conditions

- NPL – NRC conditions – working draft, dated 21.04.2023 (henceforth referred to as **NRC draft conditions**)

- NPL – WDC conditions – working draft, dated 21.04.2023 (henceforth referred to as **WDC draft conditions**)

3.2 Site and Environmental Setting

A description of the subject site and surrounding environment is provided in section 4.0 of the **AEE** and the supporting **AQA Report**.

The site is surrounded by commercial activities to the south and industrial activities, such as Marsden Point Oil Refinery to the southeast.

The nearest residential dwellings are located more than 300m to the southwest of the proposed Variable Oystercatchers and NZ Dotterel roosting habitat (**roosting habitat**) (which will be constructed as part of the project) and more than 1,000m from the proposed port expansion area.

Other residential properties are located on the opposite side of the harbour at Reotahi Bay. These properties are located approximately 1,000m from the proposed port expansion area.

The Marsden Point Beach and Ralph Trimmer Road carpark are located to the south of the

proposed port expansion area. These areas are currently used by the public for recreational purposes.

3.3 Proposal

The proposal and activities associated with discharges to air are described in section 2 of the AQA Report, further clarification is also provided in the PDP s92 Response. The PDP s92 Response also provides an assessment of the potential impact of dust emissions from the proposed construction of the roosting habitat.

The project description outlines potential works, noting that the final design will be confirmed during the detailed design phase. Despite several design uncertainties the proposal description is considered sufficient to allow an assessment of the potential air quality effects that may occur.

We have adopted that description of the proposed activity for the purpose of this review. Importantly from an air quality perspective, it is understood that the proposed expansion will only be used as a container terminal, and therefore there will not be used for the bulk cargos such logs, woodchip, palm kernel etc, which can be significant sources of dust.

Overall, we agree with the AQA Report that key air quality effects associated with the proposal will be dust generated emissions during reclamation and construction of the wharf. However, emissions from vehicle will also contribution to ambient air quality during construction and operation.

The memorandum is limited to the consideration of matters relating to air quality. Only the discharges from the proposal have been considered. Emissions from existing port activities have only been considered in terms of their potential cumulative effects.

4.0 REASON FOR CONSENT

4.1 Reasons for Consent

A list of resource consents sought (as per the application documents as lodged) are summarised in Sections 1.5 – 1.7 of the AEE and in the Draft RFI Response (paragraphs 6 to 8).

The applicant had initially assessed that the discharge to air from the construction and operation of the proposed port extension and associated to be permitted activities under the Operative Regional Air Quality Plan for Northland (**ORAQP**) and the Proposed Regional Plan for Northland (**PRP**).

The applicant has since reassessed the status of the discharges to air during construction based on conclusion of the AQA Report. The AQA Report concluded that there may be periods the effects of discharges to air during construction could be offensive or

objectionable. The applicant is therefore seeking discretionary approval for these discharges under Rule C.7.2.14 of the PRP.

The ORAQP permitted activity rule which has been applied to the project is Rule 9.1.4(4)

- *9.1.4(4) (Rules for discharges of contaminants from industrial or trade premises, Permitted Activities, the discharge of dust into the air arising from the loading, unloading and on-site movement of materials having a dust producing capacity)*

The PRP permitted activity rules which has been applied to the project are C.7.2.5 (19) and C.7.2.8

- *C.7.2.5 (19) (Discharges to air from industrial or trade premises - permitted activity the loading and unloading and on-site movement of materials) and*

- *C.7.2.8 (Discharges to air not regulated in the Plan)*

With regards to rule C.7.2.8, it is assumed the applicant is referring to Rule C.7.2.8 (1). This rule is reproduced below.

The discharge of a contaminant into air that is not the subject of any other rule in this Plan is a permitted activity, provided:

> *1) the discharge is not from an industrial or trade premises and, other than for discharges from motor vehicles, aircraft, trains, or vessels, the discharge does not result in any noxious, dangerous, offensive or objectionable odour, smoke, dust, or any noxious or dangerous levels of airborne contaminants beyond the boundary of the subject property or in the coastal marine area,*

The applicant had applied Rule C.7.2.8 (1) to any emissions to air during the proposed land reclamation and construction activities[1]. The applicant has since reassessed the discharges to air during construction as a discretionary activity.

Permitted Activity Rule 9.1.4(4) (ORAQP) and Rule C.7.2.5 (19) (PRP) both have similar air quality performance requirements to Rule C.7.2.8(1). These performance criteria are summarised below.

Rule 9.1.4(4) (ORAQP)

> *is a Permitted Activity provided that:*

[1] The applicant has classified the construction site as neither an industrial and trade premise, and therefore permitted Rule C.7.2.5 (19) is not applicable

(a) The discharge shall not result in any offensive or objectionable dust deposition, or any noxious or dangerous levels of airborne particulate matter, beyond the boundary of the subject property

Rule C.7.2.5 (PRP)

The discharge of a contaminant into air from the following industrial or trade premises is a permitted activity:

….

Provided the discharge does not result in any noxious, dangerous, offensive or objectionable odour, smoke, dust, or any noxious or dangerous levels of airborne contaminants beyond the boundary of the subject property or in the coastal marine area.

4.2 Overall Activity Status

Resource consent is sought for a **Discretionary Activity** for the discharge to air during construction. The applicant has assessed the proposed discharges to air to be a **Discretionary Activity** under Rule C 7.2.14 of the PRP.

5.0 TECHINICAL ASSESSMENT OF APPLICATION AND EFFECTS

5.1 Assessment of Effects on the Environment

Emissions to air identified in the AQA Report include:

- Discharges of dust (particulate matter) during the construction of the expanded port area and roosting habitat
- Discharges of combustion related contaminants (e.g. PM_{10}, NO_X, CO and SO_2) from vehicle during the reclamation and construction phase of the project
- Discharge of combustion related contaminants from vehicle emissions during the operation of the expanded port area.

We agree that all appropriate air quality effects from the proposed activity have been identified and assessed within the AQA Report.

Since the expanded area will be used as a container terminal, PDP states little fugitive dust would be expected to be emitted during operation.

PDP identified the dust emitted during the reclamation and construction phase of the project as being the main air quality effect. The AQA Report identified the following activities as potential sources of dust;

(i) movement and placement of material,

(ii) stockpiled material, and

(iii) construction vehicles.

We agree with the AQA Report that the primary air quality effect would be dust emitted during construction due to the large quantities of material that will be distributed and placed in the reclamation process.

Receptors Potentially Impact by Construction Dust Emissions

PDP's assessment has considered receptors within 400m of the proposed reclamation and construction work could potentially be impacted by dust emissions.

The assumed distance dust emissions may have an impact is comparable to the 300m separation distance recommended by the South Australian Environmental Protection

Authority's (EPA)[2] for minimising dust nuisance effects from bulk storage and shipping facilities and dredging activities. The 400m distance is also similar to the UK Institute of Air Quality Management (IAQM)[3] screening distance of 350m beyond which construction activities emissions would are unlikely to have a significant impact.

Overall, we agree with PDP that the risk of receptors being adversely impacted is low when the separation distance between proposed constructed activities and nearby receptor is greater than 400m.

Residential dwellings are considered to have high sensitivity to dust nuisance effect. The AQA Report identified no residential dwellings within 400m of the proposed port extension area. The closest residential dwellings are more than 1000m from the port extension area. We agree with PDP that dwellings in the vicinity of project are unlikely to be adversely impacted by the project provided standard dust control procedures are implemented at the site.

The Marsden Point beach and the Ralph Trimmer Road carpark identified by PDP are located adjacent to the proposed port reclamation area. PDP has identified the users of these public spaces as the receptors most likely to be impacted by any adverse dust effect.

As noted in Section 3.3 of the AQA Report, amenity areas where people congregate, including parks and reserves, are classified as *dust-sensitive areas* under the PRP. Therefore, the Marsden Point beach and the Ralph Trimmer Road carpark are considered *dust-sensitive areas* under the PRP.

We agree with PDP that receptors, being users of the Marsden Point beach, jetty and Ralph Trimmer Road carpark, are most likely to be impacted by any dust emitted from proposed reclamation and construction activities.

The PDP s92 Response assessed the potential impact of emissions during the construction of the roosting habitat. Two dwelling were identified which were located closer than 400m from the proposed development. These dwellings are located on Albany Road (labelled R1 and R2 PDP s92 Response) and are 300m and 350m from the roosting habitat location.

Overall, we agree with PDP that the separation distance between these dwellings and the roosting habitat could be expected to minimise the risk of adverse dust effect being experienced at these properties. However, appropriate dust control procedures would still

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[2] EPA, 2016, Evaluation distances for effective air quality and noise management, South Australia Environmental Protection Authority

[3] Institute of Air Quality Management,2014 Guidance on the assessment of dust from demolition and construction

need to be implemented during the construction and reclamation of the roosting habitat and be included in the AQMP.

Assessment of Construction Dust Nuisance Effects

Potential dust nuisance effects at Marsden Point beach, the Ralph Trimmer Road carpark and the sensitive receptors to the west of the port have been qualitatively assessed by considering FIDOL factors (i.e. **F**requency, **I**ntensity, **D**uration, **O**ffensiveness and **L**ocation). The approach is consistent with the Ministry for the Environment's Good Practice Guide for Assessing and Managing Dust (GPG Dust)[4].

PDP has used wind flows predicted by the CALMET meteorological model to assess the frequency receptors will be downwind of project, and therefore potentially exposed to emissions from the project. The CALMET model was developed by Tonkin and Taylor Ltd and has previously been used to assess emissions from the Marsden Point Oil Refinery. It is understood that the CALMET model data was used as representative meteorological data for the port was not available.

We agree that in absence of good onsite meteorological monitoring data the use of the CALMET model derived wind flows is appropriate. We have not undertaken a review of the CALMET model input configuration as part of this assessment but note that the CALMET model had previously been reviewed as part of the Marsden Point Oil Refinery resource consent application where it was deemed as an appropriate representation of onsite meteorological conditions.

The Marsden Point beach is estimated by PDP as being downwind of new port area during west and northwest winds between 1.3 to 2.2 percent of time when wind speeds are greater than 5m/s (when dust can picked-up from surfaces). Similarly, PDP estimated that the Ralph Trimmer Road car park as being downwind of new port area during north and northeast wind for 0.9 to 3.4 percent of time when wind speeds are greater than 5m/s.

PDP appears to have reported the percentage of time a receptor is downwind for each of the 16 wind direction categories (e.g. SSW, SW, WSW, W, etc) used to classify wind conditions flows in Table 1 of the AQA Report. However, when assessing potential air quality effects it is more relevant to consider the total time a receptor is downwind of an emission source during all wind conditions.

Based on the summary wind speed and wind direction distribution presented in Table 1 the total percentage time Marsden Point beach would be downwind of the expansion area during winds from the west to northwest directions when wind speeds are greater than 5 m/s can be estimated to be 5 percent (i.e. 1.3 + 2.2 + 1.5). Similarly, the total percentage time the Ralph Trimmer Road car park is downwind of the expansion area during winds

[4] Ministry for the Environment. 2016. Good Practice Guide for Assessing and Managing Dust. Wellington:

from the north and northeast directions when wind speeds are greater than 5 m/s can be estimated to be 6 percent (i.e. 0.8 + 1.8 + 3.4). Therefore, the total percentage these receptors are downwind of the site during adverse wind conditions (greater than 5 m/s) is still relatively infrequent overall.

PDP have concluded that it is possible that given the proximity of the Marsden Point beach Ralph and Trimmer Road car park to the port expansion area, these areas may at times be impacted by dust emissions. The effect of emissions may at times be **more than minor**. However, PDP note that any such events are likely to occur infrequently, and any exposure to dust would occur over a short period. PDP also notes that these areas will not be in continuous use, and at times the occupancy of these areas will be low, and therefore the risk of people being present during adverse wind conditions is likely to be comparatively low.

We agree with PDP's assessment that there is potential for users of the carpark and beach being infrequently exposed to nuisance dust during construction. We also agree which PDP that any exposures would only occur over a short period of time. However, a reasonable level of air quality amenity would still be expected in these public areas (although not as high as what may be expected in residential area). We similarly agree with PDP that the risk of users being exposed to nuisance dust can be minimised by the implementation of appropriate dust mitigation procedures.

A FIDOL assessment was also undertaken for the assessment of dust emissions from the roosting habitat (refer PDP s92 Response). We also agree with the conclusion drawn by PDP's assessment and that any discharges to air from the construction of the roosting habitat are unlikely to have an adverse dust nuisance effect, provided the proposed mitigation procedures are implemented.

The PDP Report and PDP s92 Response conclude the following effects expected from dust during the construction phase:

- Less than minor at the nearest residential dwellings,
- Less than minor on users of the Marsden Point Import Terminal (the Refinery site), and
- Users of the beach/car park, more than minor at times, but less than minor for majority of the time.

We agree with PDP's assessment of effect for these sensitive receptors in relation to exposure to dust during the construction phase of the project.

Assessment of Cumulative Dust Effects During Construction

The potential cumulative effects of dust emitted from the existing port activities and those emitted during reclamation and construction are assessed in section 5.3.1 of the AQA Report.

The following sensitive receptors have been identified; users of the Marsden Point beach, the Marsden Point Import Terminal and users of the Ralph Trimmer Road carpark. We agree with the AQA Report that, due to the separation distances between the nearest dwellings and the proposed expansion, and with the proposed mitigation measures implemented, the likelihood of the closest dwellings experiencing cumulative effects due to dust discharges from the Port is low.

PDP has also assessed the potential for cumulative effects occurring at the Marsden Point beach and Ralph Trimmer Road car park. Areas within 400m of both the existing port activities and proposed port expansion area were considered to be potentially impacted by cumulative effects.

Only a relatively small area of the Marsden Point beach was identified by PDP as being potentially impact by cumulative dust effects. However, based on the likely length of exposure users of the Marsden Point beach will be exposed to cumulative dust effects we agree with PDPs assessment that this area is unlikely to experience adverse cumulative dust effects.

The Ralph Trimmer Road car park would potentially be more impacted by cumulative effects due to the proximity of the carpark to existing port operations (including the existing adjacent wood chip pile). However, based on the modelled wind flows we agree with PDP that the frequency the car park will be downwind of the port expansion area and existing port activities during the same wind conditions is comparatively low, which would limit the risk of cumulative effects occurring. We agree with the assessment that the effects from cumulative dust to be minor.

Assessment of Construction Health Effects

No assessment of the potential health effects of the dust emitted during reclamation and construction is provided in the AQA Report. We agree with PDP that most of the dust emitted will compose of larger particle sizes. However, a small proportion will be of sizes which can be inhaled and can have health effects (i.e. particulate matter with diameters <10 µm (PM_{10}) and <2.5 µm ($PM_{2.5}$)). The potential health effects of these emissions have not been considered in the application.

However, given the separation distance between the proposed activities and nearby sensitive receptors any emissions of $PM_{2.5}$ and PM_{10} would be expected to make a small contribution to the ambient air quality concentrations at these locations. The proposed dust mitigation procedures would also control these emissions.

Although higher exposures to $PM_{2.5}$ and PM_{10} may occur at the Marsden Point beach, Ralph Trimmer Road car park and workers at the Marsden Point Import Terminal, these exposures would only occur for a short period of time. The $PM_{2.5}$ and PM_{10} guidelines are based on average exposures over a 24-hour and annual period. Therefore, based on the expected length of the exposure period and the likely range of air contaminant concentrations receptors would likely to be exposed to, we would expect the health effects of these

sensitive receptors to be less than minor.

Assessment of Operational Air Quality Effects

PDP has conducted a brief qualitative assessment of the effects of the vehicle emissions from the container terminal operations. The AEE and AQA Reports state that once the new port expansion is complete, there will be a small quantity of vehicle emissions (including the air contaminants PM_{10}, CO and NO_X).

No information on likely port vehicle movements or vehicle emissions have been provided by PDP to support this assessment. However, it is considered unlikely vehicle emissions would exceed relevant ambient air quality standards and guidelines at locations outside the site boundary.

In our opinion, vehicle emissions emitted during the operation of the port expansion area, would likely be compliant with PRP Permitted Activity Rule C.7.2.8 (1).

Provided the expanded port area is operated as a container terminal in the manner detailed in the AEE and PDP S92 Response, we also agree little fugitive dust would be expected to be emitted during operation. Any dust emitted from the port would be expected to have a minimal effect on air quality outside the site boundary.

We also agree with the PDP Report that, due to the location of Northport and the potential distance that dust can travel, the cumulative effect from the current Port activities and the proposed expansion area, there are no sensitive receptors that are affected by this cumulative scenario. We agree with PDP's assessment that the effect from the operational activities of the proposed port expansion will be **less than minor**.

Proposed Mitigation and Monitoring

<u>Dust Emissions</u>

The air quality monitoring and mitigation procedures are proposed in Section 6 of the AQA Report and Section 6 of the DCEMP.

It is noted that the AQA Report refers to an Appendix A which was to contain a draft Air Quality Management Plan (AQMP). No Appendix A has been provided in the AQA Report. For this review it has been assumed that the AQMP has instead been superseded by the DCEMP.

We note there are some differences between the mitigation procedures recommended in the AQA Report and those presented in the DCEMP. In this review, it is understood (as per the s92 response prepared by Reyburn & Bryant dated 21 February 2023, paragraph 47.1) that the mitigation procedures detailed in the DCEMP are those which are proposed by the applicant and take precedence over those recommended by PDP in the AQA Report.

It is noted that the AQA Report has specified minimum vehicle speed of 20km/hr on unsealed surfaces, and regular sweeping of sealed surfaces. These mitigation procedures have not been included in the DCEMP. We recommend these procedures are included into the CEMP. The frequency of sweeping should also be defined in the CEMP.

Similar monitoring procedures are described in both the AQA Report and DCEMP. However, the corrective actions/responses which are proposed when dust monitoring conditions are triggered, as detailed in Table 2 of the AQA Report, have not been migrated to the DCEMP. These correction actions are an important aspect of dust management plans and we recommend these are detailed in the final DCEMP.

Overall, the dust mitigation and monitoring procedures have been detailed in the DCEMP (and AQA Report) are generally consistent standard industry control practices and are appropriate subject to our recommended changes. However, there are gaps in the proposed DCEMP. We recommend that resource consent conditions require the DCEMP dust management procedures to be independently certified by an appropriately qualified professional.

Vehicle Emissions

Procedures for the minimise vehicle emission during construction and operation have been recommended in the AQA Report and are listed as a key component of the air quality management plan in Section 5.16.5 of AEE. However, it is noted that these procedures have not been incorporated into the DCEMP and later states in section 5.16.5 that *"while not proposed as a condition of consent, Northport is committed to reducing its carbon footprint, and specifically emissions from combustion engines operating on the port".*

Although vehicle emissions are a Permitted Activity, we support the inclusion of vehicle minimisation procedures detailed in the AQA Report and AEE as conditions of consent.

Conclusion

Overall, we consider the potential risk of adverse air quality effects to occur during reclamation and construction to be less than minor and can be minimised provided appropriate dust mitigation and the management plan are implemented.

6.0 TECHNICAL RESPONSE TO MATTERS RAISED IN SUBMISSIONS

Eight submissions have been received which have considered air quality issues associated with the proposal (Submission Number 18, 25, 104, 135, 164a, 176, 184 and 205). Five submissions oppose the application, one submission is neutral and two others are supportive.

The submitters air quality concerns have principally identified the potential for adverse dust effects. Three of the submitters have observed visible dust emissions from the existing port activities. However, no adverse dust deposition effects have been reported by the submitters.

The proposed port expansion area will be used as a container terminal and will not include the main dust generation activities which currently occur at the existing port (e.g. log handling and the wood chip stockpile). Emissions of dust from the expanded area during operation activities are expected to be small relative to existing emissions from the port operations.

The Patuharakeke Te Iwi Trust Board (Submitter 164a) expressed concerns regards the emission of dust and fumes during construction. The submitter considered the impact these emissions have on kaitiaki, whānau, and the community when enjoying and making use of the beach or harbour had not been adequately assessed by the applicant.

7.0 STATUTORY CONSIDERATIONS

6.1 Resource Management Act 1991

Relevant statutory considerations under the RMA include:

- Section 105 RMA – restrictions relating to discharge and coastal permits
- National Environmental Standard for Air Quality
- Regional Policy Statement for Northland
- Proposed Regional Plan for Northland (Appeals Version)
- Operative Regional Coastal Plan
- Operative Air Quality Plan
- Whangārei District Plan – Operative in Part.

Conclusion

Having reviewed the relevant provisions of the above-referenced documents, we agree the appropriate and relevant statutory considerations have been included.

8.0 RECOMMENDATION

7.1 Adequacy of information

The above assessment is based on the information submitted as part of the application. It is considered that the information submitted is sufficient to enable the consideration of the above matters on an informed basis.

7.2 Recommendation

No resource consent to discharge contaminant to air has been sought by the applicant. We are still awaiting clarification on how the applicant has addressed *Rule C.7.2.5 (PRP).* Provided the appropriate application of the Rule C7.2.5 (PRP) has been applied and provided the proposed mitigation procedures are implement and maintained, subject to recommended conditions detailed in section 7.3 below, potential effects on air quality are considered to be suitably mitigated.

7.3 Recommended Conditions and Advice Notes

The **NRC draft conditions** have been reviewed and the conditions considered relevant to the management of air quality are:

- Condition 22: Complaints response procedures,
- Conditions 43 and 44: Management of construction dust, and response procedures
- Conditions 66 – 71: General conditions relating to the Construction and Environmental Management Plan (CEMP),
- Condition 72: Specific CEMP requirements to be included for dust management and
- Conditions 140 – 143: Requirements for an Air Quality Management Plan to be prepared for the management of operational effects.

We agree with these conditions are and considered them to be appropriate for management of potential air quality effects during construction and operation.

The **WDC draft conditions** have also been reviewed. Condition 39 (e) has most relevant to air quality effects. The conditions specified a maximum height of stockpile within the area shown in the figure at Appendix One (of the consent) of must not exceed 30m above ground level. No Appendix One has been provide with **WDC draft conditions** therefore it currently is not possible to identify what area of port this restricted is being placed, and whether this will include the expanded port area.

We understand from the application that port the expansion area will be used as a container terminal only and no stockpiles will be occurring on the proposed expanded area on completion of the reclamation. The stockpiling of material up to 30m in the expansion area

would potentially be a significant source of dust. These effects have not been assessed in the application.

Based on the applicant's submissions and description of the proposed activities we recommend that Condition 39 (e) does not apply to the proposed expansion area (berth 5).

It is also noted that the Port Zone permits stockpiling up to a height of 20m. We further recommend WDC confirm that the existing consent conditions for the port allow stockpiling to a maximum height of 30m.

Memo prepared by:	Matthew Noonan
Date:	02 August 2023

Memo reviewed and approved for release by:	Blair Masefield, Technical Director, Beca Limited On behalf of the Whangārei District Council and Northland Regional Council
Date:	2 August 2023