

1 March 2018

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Dear Todd,

**Re: Eastland Port Ltd: Wharves 6 & 7 and Slipway Redevelopment: Resource Consent Applications: Further Information on Noise Matters**

Further to the recent emails and telephone discussions. We provide the following further information and comments in relation to the matters raised by Stephen Chiles in the emails. It includes material from Marty Bayley on the port operational aspects of two redevelopment projects, along with Malcolm Hunt on the technical noise matters.

**1. General Approach**

*It appears that it would be practicable to appropriately manage the construction and operational noise effects associated with the two applications. However, this is dependent on better clarity/specificity around existing and future port operations and noise controls.*

We agree and are happy to provide any further information necessary to clarify the existing and future port operations, although primarily in relation to the subject applications on the Wharf 6/7 and slipway redevelopment. The applicants cannot at this point really provide any further information on the likely form of the 'final' Wharf 8 extension/breakwater upgrade/reclamation RC's (that will complete the 'Twin Berths' project) as the extent of these proposals are still be investigated by port managers, engineers, scientists and others. The Wharf 8/breakwater/reclamation RC's are not expected to be finalised until late 2018.

The applicant's position in respect of the port operational noise effects of the subject Wharf 6/7 and slipway redevelopments were set out in the Section 92 responses from Malcolm Hunt and 4Sight of 27 November 2017. We are happy to discuss further the applicants draft consent conditions for the two current projects provided in late November 2017 and if necessary refine the 'controls' aspects of these conditions.

**2. Tairawhiti Resource Management Plan Deficiencies**

*I agree the existing rule framework in the regional/district plan is deficient and that a plan change should be initiated (normally the port company would take a lead on this). However, as a plan change has not been initiated (by council or privately) my comments are on the basis that the two resource consent applications must appropriately manage any associated noise effects without reliance on a possible future plan change. The management of effects must work around deficiencies in the operative plan, rather than being constrained by those deficiencies.*

We agree that the Tairawhiti Resource Management Plan (TRMP) noise rules for the port area have deficiencies, that a plan change is required to correct them, but in the meantime the deficiencies must be 'worked around'. This is because any plan change, whether initiated by the applicants or Council, would take 1-2 years to complete. It would need to allow for pre-plan change investigations, consultation with affected/interested parties, formal receipt vetting and notification, submissions, cross submissions, hearings and final decisions. Under the RMA a plan change would not have legal effect until Council decisions on submissions/cross submissions were made, and as such would be of very little assistance to the subject resource consent applications.

We believe the TRMP rule deficiencies were set out reasonably clearly in the two Hunt Assessment of Noise and Vibration Effects reports of September 2017 for the two redevelopment projects, along with the accompanying Hunt Port Activities Compliance Monitoring Report of August 2017. The two assessment reports have very similar findings, so in the summary below we generally refer to the Wharves 6 & 7 Redevelopment report to make things easier. The same TRMP rule deficiencies were also highlighted in the two overarching 4Sight Assessments of Environmental Effects of October 2017.

The Hunt and 4Sight reports submitted with the applications identified the following TRMP noise rule deficiencies as they relate to the two projects:

- The assessment of port noise operations from all 'essential' port activities in relation to the 'Port Noise Contours' within the Port Management B zone. itself, the night-time limit applied within this same zone and the locations for measuring compliance; and
- The assessment of construction noise (from the Wharf 6/7 and slipway redevelopment works) both on land at the Port Management B zone boundary and in the coastal marine area (CMA);
- The locations for measuring compliance with the assessment of construction noise within the Port Management Area (or CMA).

#### Port Noise Contours and Port Operational Noise Assessment Locations

The inner (65Ldn) and outer (55Ldn) long term average sound noise contours in the TRMP pass through the Port Management B zoned land, as shown in Figure 2 of the Hunt Wharves 6 & 7 Redevelopment report (page 7). As noted in the report Rule C11.2.15G, indicates that noise from 'essential port activities' within the port operational area is not to exceed the Ldn limits specified. This is not consistent with NZS 6809:1999-Port Noise Management and Land Use Planning. NZS 6809 recommends that compliance with the noise contours only be assessed for sites located beyond of the port operational area in noise sensitive locations, such as the nearby commercial and residential areas. As it stands any amount of 'essential port activity' taking place within the port at a site located beyond the port noise contours is automatically a technical infringement of the Ldn limits in the TRMP rule.

A key aspect of the assessment of operation port noise within the Hunt and 4Sight reports to date has been compliance with the port noise contour rule for any noise sensitive sites beyond the Port Management B zone, rather than within the same zone (i.e. the port operational area).

Attention has been focussed on the nearest apartments in the Amenity Commercial zone to the north (on the opposite side of the Turanganui River) and the nearest houses in the Residential zone some distance to the east (in the Crawford Rd area) as shown in Figure 3 in the Hunt report. The Hunt reports demonstrate, through noise measurements of the current port operations, that they are complying in terms of not exceeding the Ldn noise contours at the nearest apartments and houses. The Hunt report modelling of predicted noise emissions following redevelopment of Wharves 6 and 7 and the slipway (assuming a nominal 25% increase in log vessel visits) also shows the port noise contour based rules beyond the Port B Management zone at these same noise sensitive locations will continue to be complied with.

Upon closer examination of the TRMP rules we note that Rule 11.2.15.8 –General Noise Assessment, requires *“all measurements shall be taken in accordance with.....(e) NZS:6809:1999 Acoustics –Port Management and Land Use Planning”*. This is the same NZ Standard mentioned earlier. If this rule (standard) was simply used as the basis for the Ldn noise assessment, i.e. the noise contours within the working port area itself were ignored, then there would be no infringement of the TRMP rule.

#### Port Operational Noise Night Time Limits & Compliance Locations

The Hunt Port Noise Compliance report (at page 21) notes that there is also a problem with Rule 11.2.15.1(G)(c) of the TRMP. It sets a night time (between 10.00pm and 7.00am) limit on short-term average sound level from ‘essential’ port activities of Leq 60 dBA. However, the rule does not specify where compliance with this limit is to be assessed. In addition, it is not clear that this applies only to noise from ‘essential port activities’. The Hunt report has applied this rule only to noise from ‘essential port activities’, and to sites located outside the port and beyond the Ldn 65 port noise contour in accordance with NZS 6809.

#### Land Based Construction Noise

The Hunt report page and 4Sight report note that the Rule 11.2.15.2, which sets ‘long term’ and ‘short term’ construction noise limits for all land based zones, including the Port Management B zone, has two deficiencies.

Firstly for ‘long term’ construction noise (which applies to the two projects) sets a restriction of no more than 168 calendar days in any 12-month period. This is contrary to NZS 6803P:1984 - *Noise from Construction Maintenance and Demolition Work* and NZS 6903: 1983 - *Acoustics – Construction Noise*. Both NZ Standards are part of Rule 11.2.15.8, so as above basis there is some doubt whether Rule 11.2.15.2 is being infringed.

Secondly the rule indicates that compliance is measured at the zone (in this case Port Management B) boundary, rather than the nearest noise sensitive activities as recommended in the NZ Standards. Section 6,2 of NZS 6803 recommends noise limits be applied at a nominal distance from the most exposed external wall of *“buildings used for activities which may be affected by construction noise”*, and not the zone boundary as in the TRMP.

The infringements of the TRMP land based construction noise rule simply arises because of the incorrect application of the construction noise limits of NZS 6803 and the location specified in the rules as to where compliance is to be assessed.

The Hunt assessments to date have been based on assessing construction noise at buildings used for activities which may be affected by construction noise. Based on this approach, the Hunt assessments show compliance with the NZS 6803 noise limits is achieved at the nearest noise sensitive locations, notably the sites zoned Amenity Commercial and Residential.

#### Coastal Marine Area Based Noise Controls

The Hunt report (at page 13) and 4Sight report note a similar deficiency with Rule C11.2.16.1C (a) in terms assessment of the L10 and Lmax noise emissions limits (both 70dBA), at the boundary of the Port Management B zone, rather than at any noise sensitive site beyond the Ldn 65 port noise contour. As with the land based Port Management B zone rules there would be no infringement if the procedures in the NZ Standards, as required by other rules, are followed. Setting this aside, as with the other infringements this particular is really of no real effects consequence in terms of any affected parties.

#### Discretionary Activity Status of the Rule Infringements

The 4Sight report (at pages 36-39 and 41) notes that the TRMP rule infringements fall for consideration as discretionary activities. They are not non-complying activities. In this regard, they are best described as ‘infringements’, rather than ‘non-compliances’.

### **3. Scope of the Applications and the Twin Berths Project**

*I disagree with the applicant's approach to attributing (or not attributing) operational port activity to the two applications. In my opinion, it is difficult to exactly attribute particular port activity to the specific applications. However, it is clear that certain port activities cannot occur without the applications. Without the slipway works the tugs cannot use wharf 6 and therefore the port could not operate two large tugs and twin berth loading (as wharf 7 would not be available). Therefore, arguably, the sound from all twin berth operations is an effect of the slipway works. In any event, tugs using a closer part of wharf 6 to receivers is facilitated by the slipway works. I therefore consider that operational noise effects due to the slipway works are material and require management. Likewise, the wharf 6 and 7 works are essential for the operation of two tugs and twin berth loading.*

We disagree with the some of the above assessment and approach, so are providing more background information on the subject applications and how they relate to the other components of the longer term ‘Twin Berth Project’.

The resource consent applications for the redevelopment of Wharves 6 and 7 and the slipway are the first part of the ‘Twin Berths’ project that is not expected to be completed until at least late 2022 (at the earliest). In our view, the noise emissions from the redeveloped Wharf 6 and 7 areas (no port operations are planned for the redeveloped slipway) cannot be equated to those that may arise in the future from the completed ‘Twin Berth Project’.

### Current and Future Wharf Use

Currently Wharf 6 is used primarily by the regions fishing fleet and port tugs and dredge. Wharf 7 is used primarily by the coastal shipping fleet and overseas trade vessels that are not involved in log exports. Wharf 8 is used primarily by log vessels. As a result of the proposed Wharves 6 and 7 and slipway redevelopments Eastland Port expect this situation will largely continue.

Reducing the size of the slipway and replacing the two wharves will make log vessel turning, berthing and loading easier and safer, but it will not effectively result in ‘twin (log vessel) berth’ operations. This can only occur once the two remaining components of the of the Twin Berths Project are consented and then built, i.e. firstly the Wharf 7 and 8 areas, vessel turning basin and port navigation channel are deepened (capital dredged), and secondly the Wharf 8 extension is completed, the breakwater is upgraded and there is some additional log storage space (in the form of a reclamation). The scope and expected timing of the different port redevelopment projects, including the recent logyard upgrades, are summarised in the following table.

**Table 1- Gisborne Port Redevelopment Programme**

Project	Resource Consent Applications Lodged	Resource Consents Issued	Construction Commenced	Construction Completed
Southern Logyard Upgrade	October 2010	December 2010	February 2011	March 2013
Upper Logyard Upgrade	September 2011	December 2013	January 2015	September 2015
Wharfside Logyard Upgrade	March 2015	February 2017	<i>March 2018<sup>#</sup></i>	
Wharves 6 & 7 Redevelopment	October 2017			
Slipway Redevelopment	October 2017			
Port Capital Dredging	<i>June 2018<sup>#</sup></i>			
Wharf 8 Extension	<i>December 2018<sup>#</sup></i>			
Breakwater Redevelopment & Reclamation	<i>December 2018<sup>#</sup></i>			

NB. Indicative timeframe only

The completed Twin Berths Project is expected to expand the quay line at Wharves 7 and 8 to approximately 460m in order to accommodate two 220m long vessels with an adequate gap between. Currently the quayline at these two wharves is approximately 390m long.

### Consideration of the Current Applications

We agree that the noise effects of the subject resource consent application packages can be considered together. They were only separated because they were on different investigation and consenting timelines and the slipway redevelopment has a likely Council end use component. The redevelopment of Wharf 7 was included into the Wharf 6 package relatively late in the investigation process after the wharf was found to be in very poor condition and there are some construction advantages in it being replaced earlier rather than later. In this regard, the current applications only include capital dredging of the Wharf 6 berth pocket and not the Wharf 7 berth pocket.

The Wharf 7 capital dredging is currently being investigated part of the next outer port capital dredging resource consent package for Wharf 8, the vessel turning basin and port navigation channel. This application package is expected to be lodged with the Council by June 2018.

#### **4. Staged Port Redevelopment and Noise Management Plan(s)**

*A practical solution that would circumvent all debate on which activities are attributable to these applications would be for the applicant to volunteer a noise management regime, including noise criteria and monitoring that addresses all port noise. Thus, a regime would be introduced that controlled the effects of these two applications while also beneficially controlling wider aspects of the port operations. This would be an additional control to the operative plan rules, and could potentially provide a starting point for a future plan change. However, if the applicant does not volunteer such an approach, it will be necessary to somehow split activity attributable to these specific applications (which in my opinion will include all twin berth operations) and devise complex criteria and controls excluding other sources.*

We do not consider it feasible, or indeed appropriate, for the current Wharf 6 and 7 and slipway redevelopment projects to be assessed in the light of the future port capital dredging and proposed Wharf 8 extension/breakwater/reclamation projects. This is because the current projects will result in marginal changes in the port infrastructure (i.e. reconfigured wharf and slipway areas and capital dredging of one berth pocket), rather than fundamental changes in port facilities/operations, through the provision of deepened and completely redeveloped 'twin (log vessel) berths'.

The Wharves 6 and 7 and slipway redevelopment projects will not in themselves allow any further activities than cannot already occur at the port today. The wharf redevelopment project will replace/slightly extend the existing structures. The slipway redevelopment project has three objectives, being increased navigational safety for shipping manoeuvres, better environmental management of the current dilapidated asset, and possible use by the Council as part of the Tairāwhiti Navigations project. Prior to Wharf 8 being completed in 1997 all export product out of the port occurred through Wharf 7 alone, including logs.

Eastland Port have offered as part of the draft consent conditions a Noise Management Plan (see Condition 41), along with port operational noise consent condition monitoring (see Condition 45) for the Wharf 6 and Wharf 7 redevelopment project. The redeveloped slipway area is not being 'used' and as such so no NMP is being proposed for this area.

The Wharf 6 and Wharf 7 NMP is expected to be similar to that already in place for the Upper logyard (as required by the RC conditions) and that to be prepared for the Wharfside logyard (as required by the RC conditions). It will focus on management of truck movements, vessel loading and other activities within the consented area, with reference to activities currently occurring in the adjacent logyards. However, as above we not anticipating that it will try and cover those activities arising from the future (unconsented) twin berth project, i.e. noise that will arise from the extended Wharf 8 and reclamation area, that will be the subject of RC applications in late 2018/early 2019 and a consequent set of conditions and NMP.

## 5. Plan Rules and Effects Based Noise Assessment Approaches

*The applications include 'interpretation' of operative plan provisions, such as 'discounting' the part of the 65 dB Ldn contour within the port and noise limits in the centre of the river. While some of these interpretations are reasonable from a technical standpoint applying the rules as written it appears that existing port operations do not comply with the operative plan. This complicates the approach of the applicant to assume that all port operations are already dealt with by the operative plan and the effects of these applications can be considered in that context. From the information provided it appears the operative plan does not provide an appropriate framework for managing noise effects of the existing operations, and therefore this cannot be relied on to control effects due to these applications.*

We generally agree for the reasons outlined earlier that attention is best focussed on the effects of the port operations on nearby noise sensitive sites, rather than infringements of plan rules that are not consistent with the recognised NZ standards and/or open to interpretation. Leaving aside the rule infringements arising from by the TRMP deficiencies, the Hunt report demonstrates (through current noise monitoring and future noise modelling) that the Wharf 6/7/slipway redevelopment will comply with the short-term and long-term noise limits set for 'essential' and 'non-essential' port operational activities.

The Hunt report likewise predicts that port construction noise, measured and assessed in accordance with the thrust of NZS6809, will comply with this standard and the TRMP non-compliance is more imagined, rather than real. The applicants approach is focussed on the effects of noise received at sensitive sites beyond the port, as this is more consistent with the 'effects based' approach of the RMA.

## 6. Effects of Larger Vessels

*Further detail will be required to understand effects of larger vessels, which may have different sound levels/source heights as well as durations.*

We are happy to discuss this matter further, although consider it is more relevant to the future Wharf 8 extension/breakwater upgrade/reclamation RC's. As set out in the Hunt and 4Sight s92 responses most of the approximately 150 log vessels that visit the port each year are around 180m in length and this is expected to continue following the Wharf 6/7 slipway redevelopment. Although not common, larger 200m long log vessels do visit the port and are expected in the future. However, in our view the noise effects of loading a 180 metre length vessel and a 200 metre vessel are negligible, if any.

The only real difference is the hull dimension, otherwise they would have the same four cranes, positioned at the same heights. More 200m long vessel are expected in the future, following the Wharf 8 extension/breakwater redevelopment/reclamation. However, as noted in the s92 responses the rate of log loading is currently constrained by the available log storage (hence the planning for a future reclamation) and this will not be changing as a result of the Wharf 6/7/slipway redevelopment project.

Section 8.5 of the Hunt Wharves 6 & 7 Redevelopment Assessment report contains predictions of operational port noise based on estimates of expanded operations provided by Eastland Port following full completion of the 'twin berths' project. The estimates of expanded port operations, included the impact of the current Wharf 6/7/slipway redevelopment, as well as the impact of future capital dredging and Wharf 8 extension/breakwater/reclamation projects, on port operations.

The Hunt Wharves 6 and 7 Redevelopment Assessment report adopted a 'worst case' scenario of a 25% increase in log vessel visits and described/illustrated the predicted 5day Ldn values in relation to the existing port noise contours. The report finds that although noise impacts would occur both within the port and in nearby commercial and residential areas they 'were not likely not be noticeable'. In terms of noise from 'essential port activities' the Hunt report predicts no infringement of the TRMP rules based on a rational approach to assessing noise from 'essential port activities' as per NZS 6809:1999 *Acoustics - Port noise management and land use planning*.

As outlined in our earlier s92 response letter, Section 8.5 of the Hunt report contained an error in terms of the current number of existing log vessel visits to the port that was put at 230, rather than 150. However, Malcolm advises that this error did not affect the predictive modelling and associated noise impact report findings. Malcolm has provided a revised copy of Section 8.5, which corrects the error, along with a brief explanatory memo. They are attached. The revised section of the report also more clearly illustrates (in Figure 8) and explains the predictive model findings.

We trust the above response is of assistance look forward to hearing from you.

**Max Dunn**



Principal Planning and Policy Consultant  
**4Sight Consulting**

Attachment

Revised Section 8.5 – Increase in Port Capacity, of Hunt report and Hunt memo



Copies –by email

Stephen Chiles (Council Consultant)  
Marty Bayley (Eastland Port Ltd)  
Malcolm Hunt (Malcolm Hunt & Associates)  
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