Proposed Plan Change 1 to the Regional Coastal Plan for the Wellington region

December 2006

Port noise provisions

Background (section 32) report

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1. Introduction

The purpose of the Resource Management Act 1991 (the RMA) is to promote the sustainable management of natural and physical resources. This places a responsibility on the Council to ensure the noise environment in the coastal marine area is managed in the most sustainable way possible and that any adverse effects of noise generating activities are avoided, remedied or mitigated.

Before publicly notifying a proposed regional coastal plan change, the Council is required to prepare a Section 32 report that evaluates whether the proposed objectives are the most appropriate means of achieving the purpose of the RMA. Section 32 of the RMA also requires the Council to consider whether the policies, rules and other methods used in the Coastal Plan are the most appropriate methods of achieving the Plan's objectives.

This report should be read in conjunction with the proposed plan change text. It outlines the process that has been followed and the evaluation undertaken during the development of the proposed plan change.

2. Background

The process which led to the development of this Plan Change has spanned a number of phases over the last six years. The proposed plan change is based on New Zealand Standard "NZS 6809:1999 – *Acoustics - Port Noise Management and Land Use Planning*" which was being prepared during the preparation and finalisation of the Regional Coastal Plan.

The provisions included in the Coastal Plan at that time were based on the generally accepted method for controlling port noise prior to the establishment of NZS 6809:1999. Noise limits for noise from port activities were based on measurement of the L_{10} standard for day and night-time. Whilst these limits at that time were considered adequate to provide for the reasonable protection of public health and amenity values for noise sensitive activities, they did not address reverse sensitivity issues.

Decisions on the port noise provisions in the Coastal Plan were referred to the Environment Court in 1996. These references were settled on the basis that provisions based on the New Zealand Standard for port noise would be introduced into the Plan in the future.

At a Council workshop on 26 March 2003, the Council informally agreed to the need for a change to the Regional Coastal Plan. At a meeting of the Policy, Finance and Strategy Committee on 13 May 2003 a draft of the plan change for port noise provisions was received and approved for preliminary consultation.

The main thrust of the proposed plan change is to align the policies and general standards and terms in the Coastal Plan with the new approaches to port noise management contained in the New Zealand Standard 6809:1999. The proposed provisions have been developed in partnership with Wellington City Council. The intention is for a consistent approach to be used to manage the effects of noise from port activities in both the District and Regional Coastal Plans.

The proposed provisions apply within the coastal marine area adjacent to the Wellington City District. They do not apply to the Seaview Wharf. Any future changes to the provisions managing the noise from port activities at the Seaview Wharf would be undertaken in partnership with Hutt City Council.

3. Existing provisions in the Regional Coastal Plan

3.1 Relevant Objectives

The Coastal Plan

- recognises the importance of CentrePort to the social and economic well being of the region,
- acknowledges the potential adverse effects new activities may have on the existing activities in the coastal marine area and
- recognises a number of issues span mean high water springs and need to be managed according to both the coastal plan and the relevant district plan.

These issues are reflected in the objectives of the Regional Coastal Plan which state:

- 4.1.2 People and communities are able to undertake appropriate uses and developments in the coastal marine area which satisfy the environmental protection policies in the plan, including activities which:
 -; or
 - Require a coastal marine area location; or
 -
- 4.1.3 The adverse effects that new activities may have on existing legitimate activities in the coastal marine area are avoided, remedied or mitigated as far as is practicable
- 4.1.25 Activities which span the line of mean high water springs are managed in accordance with the provisions of both this Plan and any requirements in the relevant district plan
- 4.1.26 In promoting the sustainable management of the coastal marine area, the importance of the Port of Wellington to the social and economic well being of the Region is recognised.
- 6.1.1 Appropriate structures which enable people and communities to provide for their economic and social well being are allowed.

3.2 Port Noise Management Provisions

Cargo and passenger handling activities in the Commercial Port Area are permitted activities subject to meeting the general standards. The general standards require noise from activities located within the Commercial Port Area to meet the following noise limits:

Time (Any day)	Limits	
	L10	Lmax
7.00am to 11.00pm	60 dBA	-
11.00pm to 7.00am – Central Wgtn	55 dBA	75 dBA
11.00pm to 7.00am – Miramar Wharf	45 dBA	75 dBA

4. New Zealand Standard NZS 6809:1999 – Acoustics - Port Noise Management and Land Use Planning

The plan change is based on the methodology proposed by NZS 6809:1999 *Port noise management and land use planning*. This standard for port noise has been developed for use by local authorities in their resource management and regulatory roles and by port operators to facilitate the management of noise from port operations. Port operations include ships at berth, and activities on wharves and other port related activities within the coastal marine area and on land.

The Standard outlines methods for:

- Identifying areas subject to current and future port noise
- Setting boundaries to define such areas
- Imposing controls on noise sensitive activities within these boundaries, and
- Establishing maximum noise levels to control port noise at or beyond these boundaries.

In addition, the Standard includes guidance on the development of a port noise management plan and a 'port noise liaison committee'.

4.1 Noise Limits

The limits for noise from port related activities are set at the port noise control line as compliance at the control boundary will generally ensure compliance at all points beyond the control boundary. Limits set in the Proposed Plan Change generally follow that recommended in NZS 6809:1999 and are set at:

Time Period	Sound level
Any 5 consecutive 24 hour period	65dBA L _{dn}
Any 24 hour period	68dBA L _{dn}
10pm to 7am (all days)	60dBA L _{eq} (9 hour)
	60dBA L _{eq} (9 hour) 65dBA L _{eq} (15 minute)
	85dBA L _{max}

4.2 Acoustic Insulation and Ventilation

In areas subject to higher noise levels (i.e. within the port noise control lines), the approach used is to specify the noise insulation standard for the building envelope rather than internal noise environments. This is similar to the approach used in the Central Area provisions of the Wellington City District Plan. Higher noise insulation standards are specified within the port noise control line to address higher levels of noise due to the proximity to the port and to effectively mitigate against the effects of low frequency sounds and other sounds with special tonal characteristics emanating from port operations.

4.3 Noise Management Plan

The Proposed Plan Change requires the port company to develop a Noise Management Plan to the satisfaction of the Greater Wellington Regional Council and Wellington City Council. The intention of a Noise Management Plan is to identify the potential for noise reduction measures by reviewing operations and employing mitigation measures where possible to minimise the effects of noise.

NZS6809:1999 also identifies that the Management Plan should include realistic objectives for the management of noise over time, plus procedures for monitoring, reporting and reviewing noise from port related activities. The Management Plan should also specify the system for the receipt, investigation, reporting of, and response, to any complaints regarding noise from port related activities. It includes community and Council participation through a liaison committee.

5. Implementation Options

The proposed changes are grouped into three main areas:

- new policies and standards for noise emission levels for noise from port related activities have been set
- new acoustic insulation standards within the inner and outer port noise control boundary to protect new noise sensitive activities from the effects of port noise
- a stronger framework for the management, monitoring, enforcement and compliance of noise from port related activities.

The key issues addressed during the development of the options for the provisions of the plan change were:

- Cross boundary issues district boundary and coastal marine area
- Geographic application defining the port noise control line
- Acoustic insulation appropriate insulation levels and costs
- Consistency with the rest of the Regional Coastal Plan.

Table 1 outlines the key features of the plan change, their advantages and risks.

Option	Key features	Advantages	Risks
Option 1 – Do nothing, status	Retain existing provisions in the	•No costs in terms of time and resources	Not consistent with proposed changes to
quo	plan - these are very permissive as	 Building costs are not affected 	Wellington City District Plan
	noise from the CMA is measured at		 Current provisions do not recognise the
	the nearest residential zone		existing noise environment
	boundary, which is some distance		 Reverse sensitivity issue not addressed,
	away in most cases.		e.g. new residential within port noise
	•Encourage CentrePort to develop		affected area, if developers choose not to
	and implement a noise management plan (non-regulatory approach)		install noise insulation or additional noise insulation
This is <i>not</i> the recommended			• Not consistent with policy 4.2.47 to change
option			Coastal Plan to implement NZS 6809
Option 2 – Implement NZS	•35dB acoustic insulation required	•Similar thrust of provisions in District	• Noise insulation of 35 dB for noise
6809:1999 – noise from the	for new noise sensitive activities in	and Coastal plans • Consistent with NZ Standard	sensitive activities required north of
Commercial Port Area and	the coastal marine area in the Commercial Port and northern	Consistent with NZ Standard Consistent with rest of Coastal Plan	Johnston Street. • Cost to new noise sensitive activities
northern part of the Lambton Harbour Development Area	Lambton Harbour Development	 Based on quantitative noise modelling 	within the port noise control lines.
Harbour Development Area	Areas	based on 10 year port activity predictions	 New noise sensitive activities with lower
Option for port noise control line	•30dB acoustic insulation required	from CentrePort (following peer review	insulation standard in south of Johnston
terminating at MHWS near	for southern Lambton Harbour	and the identification of reduced noise	Street may be subject to higher noise
Johnston Street	Development Area	levels in Lambton Harbour)	environment for short periods
	•Port noise control line ends at	Responds to issues raised during	• Relies on 3 rd party agreement between
This is the recommended	Johnston Street	consultation	Wellington Waterfront Ltd and CentrePort
option	 Provisions amended as a result of pre-notification consultation 	 Recognises the reduced port noise environment in the Lambton Harbour 	to limit number and types of boats berthing in southern part of Lambton Harbour
	pre notification consultation	Development Area	Development Area
		•Consistent with the City's objective to	Development Area
		create high quality public spaces in the	
		waterfront area	
Option 3 – Implement NZS	•35dB acoustic insulation required	Similar thrust of provisions in District	• Noise insulation of 35 dB for noise
6809:1999 – noise from the	for new noise sensitive activities in	and Coastal plans	sensitive activities required for activities in
Commercial Port Area and all of	the coastal marine area in all of the	 Consistent with NZ Standard 	all of the Commercial Port and Lambton
the Lambton Harbour	Commercial Port and Lambton	 Consistent with rest of Coastal Plan 	Harbour Development Areas
Development Area	Harbour Development Areas		

Table 1: Greater Wellington's options for proposed coastal plan change for port noise

Option	Key features	Advantages	Risks
Option for port noise control line south of Johnston Street following mean high water springs This is <i>not</i> the recommended option	•Port noise control line at MHWS	 Based on quantitative noise modelling based on 10 year port activity predictions from CentrePort (following peer review) Recognises the reduced port noise environment in the Lambton Harbour Development Area Consistent with the City's objective to create high quality public spaces in the waterfront area 	 Cost to new noise sensitive activities within the port noise control lines. Boats berthed at Taranaki Wharf may not be able to comply with the noise standards The requirement for the 35dB noise insulation standard in all of Lambton Harbour Development area may be too high
Option 4 – Implement NZS 6809:1999 – noise from the Commercial Port Area and all of the Lambton Harbour Development Area Option for port noise control line following road centre line around Waterloo and Jervois Quay This is <i>not</i> the recommended option	 35dB acoustic insulation required for new noise sensitive activities in the coastal marine area in all of the Commercial Port and Lambton Harbour Development Areas Port noise control line at Waterloo, Customhouse and Jervois Quays 	 Consistent with NZ Standard Based on quantitative noise modelling based on 10 year port activity predictions from CentrePort 	 Noise insulation of 35 dB for noise sensitive activities required for activities in all of the Commercial Port and Lambton Harbour Development Areas within the district and coastal marine area is higher than neccessary Cost to new noise sensitive activities within the port noise control lines. Not consistent with proposed changes to Wellington City District Plan Does not recognises the reduced port noise environment in the Lambton Harbour Development Area Allows for significantly higher noise emission from port activities in Lambton Harbour Development Area than current noise environment Not consistent with the City's objective to create high quality public spaces in the waterfront area as allows higher levels of noise in Lambton Harbour Development Area

6. Discussion

Section 32 of the RMA requires the Council to be satisfied that the objectives of the proposed plan change are the most appropriate way to achieve the purpose of the RMA. Proposed Coastal Plan Change 1 does not change any of the objectives in the Coastal Plan. It is assumed that the existing objectives meet the requirements of Section 32.

Section 32 also states that the Council must, having regard to their efficiency and effectiveness, consider whether the policies, rules and other methods used in the proposed plan change are the most appropriate methods of achieving the Plan's objectives. The plan change is based on the approach developed under NZS 6809:1999 – *Acoustics - Port Noise Management and Land Use Planning*, which has been through a rigorous development process involving local government and port companies. For this reason, it is not proposed to reconsider the merits of the Port Noise Management standard, rather the specifics of its application to CentrePort's activities.

The current standards for noise emission from the Coastal Marine Area is specified by Section 14 – General Standards and Terms in the Regional Coastal Plan. The new approach updated the standards to generate a mix of management, design and regulation for greater flexibility, clarity and ease of implementation. The new approaches contained within the Port Noise Standard (NZS 6809:1999) will provide further clarification of port noise limits and acoustic requirements for establishing new 'noise sensitive activities' within the port noise affected area.

The main benefits to improving the management of noise from port activities and mitigating its effects by insulating is that it would ensure protection against external noise for all new and proposed noise sensitive activities (including residential developments) within the port noise control line – equating to:

- decreased noise complaints from residents and visitors;
- better health due to decreased incidence of sleep disturbance;
- better amenity for childcare facilities and
- less potential for reverse sensitivity arguments against existing and future port activities.

The new approach also requires that a Port Noise Management Plan and liaison committees be established to support the standard, develop greater information flow and understanding between port activities and communities. This kind of approach can generate improved response to issues and concerns as they arise. CentrePort's Environment Liaison Committee is currently a mechanism that is successfully used by the port management.

6.1 Cross Boundary issues

Port activities occur in the Coastal Marine Area and within the district. The Environment Court has considered the issue of port noise and cross boundary issues in its decision on Carey's Bay¹. In effect, the Coastal Plan may take into account noise from all port activities both within the adjacent district and the Coastal Marine Area when developing mitigation measures such as the requirement for acoustic insulation.

Achieving a high level of consistency between the Wellington City District Plan and the Coastal Plan addresses much of the jurisdictional issues for enforcement of the port noise standards. In addition, discussions are currently underway between officers of Greater Wellington and Wellington City Council on aligning the monitoring and enforcement roles of both Council's. This could be achieved through either a transfer of powers or on a contractual basis. However, the practical details of enforcement do not affect the wording of the proposed plan change.

6.2 Defining the port noise control line

Modelling of the predicted port noise affected areas was undertaken by Marshall Day Ltd for CentrePort, and reviewed by Malcolm Hunt Associates Ltd on behalf of Greater Wellington and the Wellington City Council. The conclusions of the review were that the methodology and approach were reasonable and consistent with the approach anticipated by NZS 6809:1999. In all areas except the southern port area adjacent to the Lambton Harbour Area, the predicted 65dBA and 55dBA L_{dn} contour and adjusted port noise control line were appropriate. However, in the Lambton Harbour Area the review report raises alternative options for the location of the port noise control line running along the Quays.

As part of the preliminary consultation on the proposed provisions, discussions were held between CentrePort, Wellington Waterfront Ltd, the Councils and their respective noise experts. Wellington Waterfront Ltd are an important affected party as they licence the use of the wharves in the Lambton Harbour Development Area to CentrePort. This agreement enables Wellington Waterfront Ltd to limit the nature, type, duration and number of boats that can be berthed in Lambton Harbour. As a result of the restrictions on the use of berths in the Lambton Harbour Development Area, it has been agreed that the noise environment in the Lambton Harbour Development Area is unlikely to be as high as originally predicted. It is now proposed that the port noise control line should terminate at mean high water springs near Johnston Street.

¹ Carey's Bay Association Incorporation v Dunedin City Council (c165/2002)

6.3 Acoustic Insulation

A report by Rider Hunt (quantity surveyors) was commissioned by Wellington City Council to assess the cost impacts of the additional noise insulation requirements. The requirement for noise sensitive activities to insulate against noise rather than specifying an internal noise standard follows a similar approach to that used in the Wellington City District Plan Central Area noise insulation plan change. The 35dBA noise insulation standard could be met through a combination of thicker glass, thicker wall linings (gib) and in the case of penthouse apartments or villas, thicker roofing iron.

summarised below: Base cost (no additional acoustic insulation) Base cost (no additional 30dB acoustic insulation insulation

The cost increases for the various acoustic insulation standards are

Model 1 - Bedroom Mid floor apartment	\$84,000	1.8	4.8	
Model 2 - Bedroom	\$144.900	5.6	16.1	
Penthouse apartment	\$144,900	5.0	10.1	
Model 3 - Villa retrofit				
1 bedroom with ensuite	\$63,300	12.2	26.5	
extension				
There are no existing villas in the Coastal Marine Area subject to the higher				

There are no existing villas in the Coastal Marine Area subject to the higher noise insulation standard (35dB) and accordingly the Villa retrofit can only be a best estimate of the potential costs added by the proposed plan change. The estimated cost increase for the higher noise insulation standard of 35dB ranges from 5% to 26% and the lower noise insulation standard (30dB) is 2% to 12%.

6.4 Consistency with the rest of the Regional Coastal Plan

The Coastal Plan recognises the need to change the plan to reflect the provisions in the Wellington City District Plan. The process to develop the plan change has been in partnership with the City Council and there is a high degree of agreement between the proposed provisions for both the City and Regional plans.

The Coastal Plan identifies the following issues are relevant to this plan change

- recognises the importance of CentrePort to the social and economic well being of the region,
- acknowledges the potential adverse effects new activities may have on the existing activities in the coastal marine area and

• recognises a number of issues span mean high water springs and need to be managed according to both the coastal plan and the relevant district plan.

The proposed option for the plan change achieves a balance between enabling CentrePort to continue (and expand) its operations, addresses the reverse sensitivity issue through the requirement for additional noise insulation and is consistent with the proposed provisions managing port noise in the Wellington City District Plan.

7. Conclusion

The main benefits to improving the management of noise from port activities and mitigating its effects by insulating is that it would ensure protection against external noise for all new and proposed noise sensitive activities (including residential developments) within the port noise control line – equating to:

- decreased noise complaints from residents and visitors;
- better health due to decreased incidence of sleep disturbance;
- better amenity for childcare facilities and
- less potential for reverse sensitivity arguments against existing and future port activities.

While the introduction of the rules would result in higher development costs as a result of providing acoustic insulation to mitigate against noise from port related activities, it is considered that the overall benefits outweigh these one-off costs.

Appendix 1: Consultation

The preparation of this plan change has been done in partnership with Wellington City Council and in consultation with CentrePort. Consultation with internal and external stakeholders on the form and content of the plan change has been undertaken at a number of stages throughout the development of the plan change provisions. People living and working in areas affected by port noise were sent draft port noise plan changes for comment in June 2003 and March 2006. The material included the booklet *Draft Changes to Regional and District Plans on Port Noise: Information for residents and businesses.* People were invited to comment and staff offered to meet and discuss the changes with them if they wanted.

In addition, consultation has been undertaken in accordance with the 1st Schedule of the Act, with the following parties:

- Wellington City Council
- Wellington Waterfront Ltd
- Wellington International Airport Ltd and
- CentrePort Ltd
- Ngati Toa & Tenths Trust (Te Atiawa)
- Ministry for the Environment
- Ministry of Conservation
- Ministry of Transport.

Five responses were received from the circulation of pamphlets explaining the proposed plan change in 2003. In 2006 additional comments were received from some of these parties. Issues have been raised regarding

- noise from the InterIslander and BlueBridge ferry terminals, particularly that the measurement of sound using dBA does not give sufficient weighting to low frequency sounds which can cause vibrations
- the location of the port noise control line should restrict the ability of the Port to generate noise in excess of 65dBA to within the port's site only
- the existing noise environment from the port, motorway and rail yards in the Sar Street area
- new dwellings to be acoustically insulated rather than the noise generators reducing the noise emissions i.e. reverse sensitivity.

In July 2006 meetings were held with Wellington Waterfront Ltd (WWL), CentrePort, Willis Bond Ltd and Wellington International Airport Ltd (WIAL).

WWL had previously been opposed to the proposed plan change. However, in July 2006, their position had changed and WWL supported the principles of higher noise insulation requirements but raised concerns regarding the predicted port noise environment in the Lambton Harbour Area. This is because development and lease agreements for proposed developments on the Queen's Wharf Outer T and Overseas Passenger Terminal include clauses limiting the types of boats that may berth at these wharves. Generally, WWL considered that these ships would have lower noise emissions than the current environment and providing for a higher noise environment as originally proposed in the plan change provisions was contrary to the objective of creating a high amenity environment and developments on the waterfront.

Willis Bond raised concerns about whether a higher acoustic insulation standard is needed at the Overseas Passenger Terminal (i.e. 35dBA vs 30 dBA). The consultation booklet outlined the proposed provisions including the location of the port noise control line. At the time of the consultation the line ran around the landward side of the Lambton Harbour Area defined in the Wellington City District Plan. As a result of discussions, the Council's were made aware of an agreement between Willis Bond and Wellington Waterfront that is being considered. It limits the use of the Overseas Passenger Terminal by large ships to a maximum of five events per year up to a cumulative total of 20 days. These would be for maritime emergencies or nationally important events . CentrePort agree in principle to limit its usage of the OPT to berth ships. This reduces the predicted noise environment in the southern part of the Lambton Harbour Development area and the port noise control line has been moved to reflect this.

CentrePort generally support the thrust of the Proposed Plan Change and have been closely involved in the development of the draft provisions. CentrePort support the shifting of the port noise control line to end at mean high water springs at the extension of Johnston Street.

As noted above, the proposed plan change provisions have been amended in the Lambton Harbour Development Area as a result of consultation. The shifting of the port noise control line has removed the requirement for noise insulation of 35dBA for buildings that house noise sensitive activities within the majority of the Lambton Harbour Area. Any development of buildings that house noise sensitive activities in the majority of the Lambton Harbour Area (south of Johnston Street) must meet a 30dBA noise attenuation standard.

This approach is consistent with policies 4.2.46 and 4.2.47 which seek to align provisions in the Regional Coastal Plan for Lambton Harbour with provisions in Wellington City's District Plan. The rules for the Central Area in the District Plan require insulation to a 30dBA standard.

Appendix 2: Section 32 Resource Management Act 1991

32 Consideration of alternatives, benefits, and costs

- (1) In achieving the purpose of this Act, before a proposed plan, proposed policy statement, change, or variation is publicly notified, a national policy statement or New Zealand coastal policy statement is notified under section <u>48</u>, or a regulation is made, an evaluation must be carried out by—
 - (a) the Minister, for a national policy statement or a national environmental standard; or
 - (b) the Minister of Conservation, for the New Zealand coastal policy statement; or
 - (c) the local authority, for a policy statement or a plan (except for plan changes that have been requested and the request accepted under clause <u>25(2)(b)</u> of Part 2 of Schedule 1); or
 - (d) the person who made the request, for plan changes that have been requested and the request accepted under clause 25(2)(b) of Part 2 of the Schedule 1.
- (2) A further evaluation must also be made by-
 - (a) a local authority before making a decision under clause 10 or clause 29(4) of the Schedule 1; and
 - (b) the relevant Minister before issuing a national policy statement or New Zealand coastal policy statement.
- (3) An evaluation must examine—
 - (a) the extent to which each objective is the most appropriate way to achieve the purpose of this Act; and
 - (b) whether, having regard to their efficiency and effectiveness, the policies, rules, or other methods are the most appropriate for achieving the objectives.
- (3A) This subsection applies to a rule that imposes a greater prohibition or restriction on an activity to which a national environmental standard applies than any prohibition or restriction in the standard. The evaluation of such a rule must examine whether the prohibition or restriction it imposes is justified in the circumstances of the region or district.
- (4) For the purposes of the examinations referred to in subsections (3) and (3A), an evaluation must take into account—
 - (a) the benefits and costs of policies, rules, or other methods; and
 - (b) the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods.
- (5) The person required to carry out an evaluation under subsection (1) must prepare a report summarising the evaluation and giving reasons for that evaluation.
- (6) The report must be available for public inspection at the same time as the document to which the report relates is publicly notified or the regulation is made.