

Environmental Protection Agency

Waterview Connection Project:
Section 42A Addendum Report

Prepared For:

Environmental Protection Agency
PO Box 10720, The Terrace
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20 December 2010

FINAL

ENVIRONMENTAL MANAGEMENT SERVICES
Limited

Executive Summary

This Section 42A **Addendum** Report updates our Report dated 7 December 2010.

The report addresses issues raised and responses provided by the Applicant (NZTA) in their 37 statements of evidence (or evidence in chief) prepared for the Board of Inquiry to decide on Notices of Requirement and resource consent applications for the Waterview Connection Project (the Project).

This Addendum Report addresses two matters:

1. The changes to the Project noted in these primary statements of evidence (evidence in chief); and
2. The matters that have been addressed in relation to the 'action list' recorded in Chapter 16 to our Section 42A Report and any outstanding issues.

From our assessments of this evidence, the key issues concern:

- 1 The extent of any further changes proposed for the Project is not clear from our review of the evidence.
- 2 In relation to the location, scale and design of the ventilation buildings the "re-design" presented in the evidence-in-chief is not presented as the preferred design outcome sought for these structures by the Applicant. This is confusing, as if this is not the preferred option then on what basis can the Board consider the proposal to be part of the application documentation. It cannot assist in forming an opinion as to the changes to environmental effects associated with the Project, and condition framing.
- 3 The importance of our recommended approach remains to establish agreed performance standards in the relevant management plan(s) and conditions that cannot be changed so as to adequately safeguard residential amenity through the construction period.



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REPORT INFORMATION		
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1 INTRODUCTION

- 1.1 This Section 42A Addendum Report updates our Report dated 7 December 2010 to address issues raised and responses provided by the Applicant (NZTA) in their 37 primary statements of evidence (or evidence in chief) prepared for the Board of Inquiry to decide on Notices of Requirement and resource consent applications for the Waterview Connection Project (the Project).
- 1.2 This Addendum Report addresses two matters:
3. The changes to the Project noted in these primary statements of evidence (evidence in chief); and
 4. The matters that have been addressed in relation to the 'action list' recorded in Chapter 16 to our Section 42A Report and any outstanding issues.
- 1.3 The following qualifications are however brought to the attention of the Board, the Applicant, submitters and other parties involved with the Project:
- Our Section 42A Report was completed without the benefit of the receipt or review of this extensive set of primary evidence from the Applicant; and
 - The evidence of the Applicant was prepared in the absence of our Report being available for their consideration.
- 1.4 Where we refer to a statement of evidence (EIC) from the Applicant we do so in the following manner: "1/23" for example, refers to the evidence in chief (EIC) referenced as Evidence 1 on the Applicant's website, and specifically paragraph 23 in this example.
- 1.5 Where appropriate additional issues are raised that warrant consideration by the Applicant.



2 ESTABLISHING THE NATURE AND SCALE OF CHANGES TO THE PROJECT

- 2.1 The extent of the changes proposed for the Project is not clear from our review of the evidence in chief (EIC 1 – T Parker) where we would have expected to have had these matters recorded. EIC 2 (Walter) informs further but not in any detail in paragraphs 16-125 when describing the Project and its key features.
- 2.2 We note the separate correspondence from the NZTA (15 November 2010) to confirm the withdrawal of NOR 6 concerning the emergency ventilation system at Cradock Place, but short of reviewing each statement of evidence there is no summary assessment of engineering design changes if any that have resulted.
- 2.3 We acknowledge that the effects of these emergency discharges from the ventilation systems at the northern and southern end of the tunnel corridor on the environmental amenity are discussed in EIC 23 (G. Fisher). Evidence is assertive on the overall positive performance expected of the ventilation system.
- 2.4 We also note that EIC 5/22 and 5/27 (Linzey) confirms the withdrawal of NOR 6, but without reference to any change in the design and potential performance of the ventilation system for the Project.
- 2.5 We deduce the other changes to the Project based on our review of the evidence of the Applicant to be as follows:
1. EIC 5/54 and 37/26 (Linzey) outlines the additional design and assessment completed regarding the ventilation buildings and stacks at the northern and southern portals to the tunnel section of the Project. A series of relevant expert statements are noted from Gibbs (EIC 27), Brown (EIC 28), Hancock (EIC 29), and Little (EIC 30).
 2. EIC 5/58-59 (Linzey) records changes to the provision of esplanade reserves beneath the ramps to the GNI to establish 20 metre corridors, the re-positioning of Waterview Reserve (EIC 30/68), changes to the Alan Wood Reserve Plan as well as increasing the replacement esplanade reserve widths adjoining Oakley Creek in Hendon Park from 10 to 20 metres with the overall increase of around 0.6 hectares of additional reserve replacement. These are refinements to the detailed design.
 3. EIC 28 (Brown) records under Post-Lodgement Events (paragraph 104) provision for temporary embankments as part of the SH16 causeway. Paragraph 105 describes “trial embankments”. EIC 17 (Bell) provides a full technical assessment. However, we are unclear whether such works (which are also described in EIC 15 and 16) form part of the currently sought resource consents. The Applicant should clarify this point.
 4. And not unexpectedly, the refinement and inclusion of conditions to the requirements and resource consents, sourced from various specialist/technical statements of evidence is usefully recorded by way of track changes in EIC 37/Annexure B (Linzey).

2.6 However, we cannot confirm that these record all changes to the Project that the Board needs to be aware of. The Applicant must therefore confirm these matters for the Board.

2.7 Matters concerned with 'consenting' are:

1. EIC 6/37 (O. Burn) – an additional controlled activity resource consent is required pursuant to Rule 12.5.11 Auckland Regional Plan for modification of heritage sea wall, with the relevant assessment already presented in G.2 Assessment of Archaeological Effects.
2. EIC 6/34.7 and 36/48-63 (Burn), EIC 5/53 and 37/28.4 (Linzey) considers the New Zealand Coastal Policy Statement 2010 that is required to be given effect to, after December 3, 2010. In summary, the Project is assessed by both as consistent with the objectives of NZCPS 2010.



3 UNDERSTANDING THE PRINCIPAL ISSUES

3.1 OVERVIEW

3.1.1 The key issues identified and summarised in the final chapter of our Section 42A Report (our Chapter 16) are recorded below, but are re-ordered to group more closely under the strategic headings that we described as being the Principal Issues.

3.1.2 In Chapter 16 we stated:

16.3 *To further summarise, the Principal Issues that could benefit from the further definition of options, caucusing and condition setting are:*

- Northern Ventilation building – location and profile;
- Northern ventilation stack – location and emissions quality;
- Southern Ventilation building - location and profile;
- Southern ventilation stack – location and emissions quality;
- Construction Yard 1 - location and orientation;
- Wider public transport improvements as part of Project specific mitigation;
- Off road tunnel sector cycleway opportunity;
- Integrated reserves strategy – refining the terms of the NZTA/AC ‘partnership’;
- Tunnel extension option;
- Motu Manawa Marine Reserve environmental off-set/compensation strategy;
- Contaminated sediments management and disposal.

16.4 *At a strategic level the topics can be integrated under four themes:*

1. *Location, profile and operational performance of the ventilation buildings, and stacks;*
2. *Integrated reserves strategy;*
3. *Wider public transport improvements as part of the Project; and*
4. *Motu Manawa Marine Reserve Environmental Strategy.*

and

16.6 *From our overview assessment presented in Chapter 14 we also note that the one remaining key area of further inquiry should be focused on the conditions associated with the implementation of the twelve Management Plans and resource consents, and whether they provide a suitable and certain process for technical certification, if the consents and statutory approvals are to be considered favourably by the Board.*

16.7 *Clear objectives and measurable performance standards will be essential elements for all management plans prepared to enable Council certification to be completed governing the implementation of works to avoid, remedy or mitigate potential effects. Details of all monitoring and reporting systems need incorporation into final condition setting. Following this approach to the certification of management plans then the Outline Plan of Works processes can also be discharged for those specific work elements including the various staged programmes of works for the Project.*

3.1.3 Using this checklist (which is presented as a request for further information that would be beneficial to the Board’s understanding of issues) our assessment of the issues follows cross referenced to the relevant discussion topics addressed in the evidence in chief (EIC) of the Applicant. The cross referencing links matters that



have been partly or fully explored by the Applicant in EIC, but cannot be considered more than a guide. The absence of a response to date can be addressed by the Applicant in rebuttal evidence.

3.1.4 We then provide an overview commentary on the evidence presented, and an assessment whether the matter is adequately addressed such that the Board is now likely to be reasonably informed on the matter.

3.1.5 We have not reviewed all the technically focused statements of evidence except to review their executive summaries and condition propositions that are outlined as necessary.

3.1.6 Our assessment follows under those (now modified) strategic topic headings:

1. General Matters concerning the definition of the Project;
2. Consideration of the wider transportation improvements that are or could be considered part of the Project;
3. Location, scale and design of ventilation buildings and stacks;
4. Reclamation and Management Issues associated with Motu Manawa Marine Reserve and Coastal Marine Area;
5. Provision and implementation of an Open Space Restoration Strategy to mitigate effects;
6. Mitigation of Specific/Sector based effects;
7. Partnership Arrangements being considered by the Applicant; and
8. Condition Setting and Performance.

3.2 GENERAL MATTERS CONCERNING THE DEFINITION OF THE PROJECT

S42a Report Paragraph Reference	Topic for further consideration (Paraphrased)	Applicant's Evidence in Chief Reference (EIC): (No./paragraph)
1.7.2	Confirm the changes to the design of the Project, performance outcomes, the associated environmental effects and mitigation measures now the emergency exhaust is no longer part of the Project.	
3.2.1	Confirm all works are correctly and legally authorised.	
7.2.25	Provision of an economic assessment of Project's costs and benefits over time.	3/160-162
10.1.4	The assessment of the general percentage of the various NOR sections that are already designated for these Project related works.	2/140 2/199-211
10.2.32	Property purchase request (Submitter 12)	1/124-129
10.4.7	Confirm any feedback from Te Kawerau Iwi Tribal Authority.	
10.6.7	Confirm locations where road stopping procedures under the Local Government Act will apply	
10.8.9 10.8.26	Confirm where any potential return of land for residential activities in this Sector might occur.	37/53 28/200-202
13.2.3 13.2.4	Confirm the approach and timing for other authorisations and approvals required, and how the Board should consider these matters.	5/13 5/48-50 6/38-40



		37/82-90
9.7.2	Absence of an updated Cultural Impact Assessment Report.	
10.10.19 10.10.85 10.10.86	Consider the merits of adopting the permitted baseline assessment for that part of the Project route within the Special Purpose 3 Zone in this Sector if at grade, in comparison to the tunnel extension option.	
11.2.5	Confirm the extent of the energy savings that might accrue to the Project and the level of reduction in carbon emissions.	6/51

Section 177 RMA Matters

3.2.1 The Applicant advises that discussions with other agencies are on-going to secure the necessary approvals under s177 RMA to give effect to the implementation of 'overlapping' designations.

Outline Plan of Works

3.2.2 The Applicant considers that in the current circumstances an Outline Plan of Works (OPW) is not required. However, we remain of the opinion that there is a procedural step that can apply for the concurrent and integrated consideration and certification of management plans and the consideration of the OPW design details of height, shape and bulk for example for the Project that does not duplicate the 'consenting process'. Further, the detailed design has yet to be undertaken so this reinforces the general duty to provide OPW as and when this is 'enabled' through the final design process.

Other Statutory Processes

3.2.3 The applicant's comments remain general and non-specific as to the timing for obtaining approvals under all other statutes. This remains a concern to how the Project overall can be implemented without the Board's appreciation of the issues arising from these approvals and any implications for design and consent conditions.

3.3 WIDER TRANSPORTATION IMPROVEMENTS THAT ARE OR COULD BE CONSIDERED PART OF THE PROJECT

S42A Report Paragraph Reference	Topic for further consideration (Paraphrased)	Applicant's Evidence in Chief Reference (EIC): (No./paragraph)
7.2.14	Address the network capacity allocation and efficiency on the transport network	1/45-80 3/152-157
7.2.19	The scope for the detailed design to provide for dedicated bus lanes as part of the Te Atatu Interchange.	2/16-22 3/119-121, 3/178-182
7.2.20	Provision of at grade cycleway connection on Sector 8.	3/112-124, 37/51-52
7.2.21 7.2.22	Confirm the scope of approach, responsibilities and partnership arrangements associated with the Network Integration Plan to demonstrate how the Project's "wider benefits" are to be realised.	1/86-105 1/170-173, 3/68-71
7.2.23	Provision of an integrated set of drawings showing pedestrian pathways, cycleways, bus lanes and bus ways for the Project	2/16-22 3/61-64



	and detailing for each interchange	3/163-171, 29/101-113 29/153-157
7.2.24	Provision of current and possible future bus service provision on the local road network in relation to SH20 corridor	1/176-183 2/53-59
10.2.12 10.2.33	Provision of safe, direct pedestrian and cycle movements through the Te Atatu Interchange.	2/25-31 3/119-121, 3/178-182
10.5.7	How do site specific traffic management plans reconcile with the timetable presented in G.21 Construction Environmental Management Plan.	
10.6.35 10.6.39 10.6.40	Feasibility of enhancing north-south pedestrian/cycleway connectivity between Waterview-Pt. Chevalier.	1/142-150, 1/156-161, 2/60-65 3/115-118, 37/52
10.7.17	Evaluate the opportunity to improve the cycleway network by upgrading the Carrington Road / Sutherland Road crossing and improvements to the St. Lukes Road interchange to enhance the safety of the (off-road) cycleway network.	2/53-65
10.8.97	Assess the merits of a northbound bus lane between Oakley Avenue and Waterview Interchange as part of the reconstruction of the road above the cut and cover tunnel.	
10.8.98	Assess the merits of a Great North Road western shared pedestrian and cycle route consistent with the standard of other project shared paths on the western side of Great North Road from Oakley Avenue to Waterview interchange.	3/61-67, 3/112-114, 5/75-77, 37/51-52
10.9.30 10.9.31	Determine partnership opportunities for an at grade cycle-pedestrian network in Sector 8.	
10.9.33	Determine whether wider public transport improvements over time can be achieved in part through the Project and with support from the various transport agencies.	1/176-183 3/114
10.10.98	Confirm Kiwi Rail's views regarding the use of the designated rail corridor for amenity purposes.	5/68 30/94
10.10.106	Clarify that the Project does not compromise the prospect for a rail station precinct provided at Stoddard town centre Road shops.	
13.1.15	Confirm the Project's compatibility with a 10 year plan to implement the development of a rapid transit network and quality transit network under the Auckland Passenger Transport Network Plan 2006-2016.	1/85-105

Cycling and Pedestrian Connectivity

3.3.1 Our overview assessment of the evidence presented by the Applicant is that cycling and walking provision is provided to the extent necessary to ensure that potential adverse effects of the Project are mitigated.

Connections at Waterview Interchange

3.3.2 The issue of local connections at Waterview Interchange is considered in EIC 2 paragraph 54. Plans demonstrating the extent of the effects and issues raised would assist understanding. In particular a scheme showing a south bound SH20 on ramp local connection from Carrington Road should be drawn up in preliminary design terms to demonstrate the issues of concern.

3.3.3 The evidence also notes that a pedestrian/cycle connection to Point Chevalier can be achieved but it is considered this should be the responsibility of the Auckland Council



because it is to be part of the open space development. Hopefully this position is clarified elsewhere in evidence.

- 3.3.4 In summary, the Project is viewed as ‘enabling’ other cycling and walking opportunities to occur as part of wider regional plans and strategies, but as part of separate projects. The Applicant concludes that many submitter proposals are more suitably promoted by Auckland Transport.
- 3.3.5 Local traffic access to the Waterview corridor is assessed as not being viable in terms of the overall performance of the network and therefore is not promoted by the Applicant. However, the evidence does not fully evaluate these options through presentation of plans and preliminary design to articulate the implications of each and therefore the overall merits of the current proposal.

Network Integration

- 3.3.6 The Applicant suggests the Network Integration Plan will provide the mechanism critical to achieving the integration of transport planning between NZTA and other agencies to achieve integration and optimisation of the local transport network in the future in Auckland. A condition (OT.1) outlines this expectation.
- 3.3.7 The Applicant advises that Kiwi Rail’s intentions will be further developed following from the outcomes of the Applicant’s Project.
- 3.3.8 We comment further on the scope for the Applicant to promote collaborative arrangements through integration of transport services on the transport network in section 3.8.

3.4 LOCATION, SCALE AND DESIGN OF VENTILATION BUILDINGS AND STACKS

S42A Report Paragraph Reference	Topic for further consideration (Paraphrased)	Applicant’s Evidence in Chief Reference (EIC): (No./paragraph)
7.8.5	Alternative design treatments to address/improve air quality emissions from the ventilation stacks and meet community concerns.	2/70-78 23/10-16 23/20-4 23/50-77 23/83 24/12-13 24/30-37 24/63-78
10..8.40	Require visual simulations of ventilation building and stack from other directions	5/54 27/36-70 27/Annexures A-C 28/80-85 28/86-92 28/108-110 28/Annexure B
10.8.80 10.8.84 10.8.89 10.8.90	Further consideration to the design and location options for the northern ventilation building and stack and its operation that involves Council and community input.	1/164 2/68-78 5/79 28/50-53



		28/112-133 29/114-118
10.10.87 10.10.91 10.10.92	Consider the merits for locating the southern ventilation building underground and make comparison with the permitted baseline for structures in the Open Space Zone.	1/164 5/79 29/128-132 29/144-152
10.10.93	Consider creating the ventilation stack as a positive landmark (for both the northern and southern facilities).	2/111-116 27/Annexure A 29/170-171

Overview

- 3.4.1 The Applicant provides an overview of the additional design assessment in EIC 2/69 and EIC 5/54 and points to further consideration by Gibbs (EIC 27), with supporting or companion statements that also consider this matter by Brown (EIC 28), Hancock (EIC 29), and Little (EIC 30).
- 3.4.2 EIC 2/69 notes that the northern ventilation building has been reduced in size as a result of relocating the control facilities to the southern portal. Water tanks have also now been located underground. This is discussed further below.
- 3.4.3 The reasons for not placing even more ventilation facilities underground seem to be heavily related to issues concerning access. EIC 2/113 notes that a 10 tonne low level truck with high lifting capabilities is required and this would require a 500 – 750 metre ramp. We consider that a ramped approach may still be preferable and should be explored further. There may also be more innovative means of providing the required level of maintenance access.

Architectural Design Review

- 3.4.4 Significant further design work and review has been undertaken on the ventilation buildings and stacks since the applications were lodged. EIC 27 (Gibbs) informs specifically on a revised concept for the two ventilation buildings and emission stacks as part of an architectural review and the request to develop a new design concept. We note in paragraph 31 it states that the design principles adopted are:
- Minimising the bulk of the buildings;
 - Setting portions of the buildings into the ground;
 - Mounding of earth against and over the buildings to minimise visual impact;
 - Breaking the building up into component structures; and
 - Expressing the form of buildings as urban sculpture.
- 3.4.5 From a general perspective we think these principles have merit and have the potential to mitigate the effects to a considerable extent of the buildings in their respective environments.
- 3.4.6 The revision is a strikingly and significantly different proposal or concept to those plans lodged to which we made critical comment regarding their utilitarian or industrial type bulk and profile.
- 3.4.7 EIC 27/41 states that the team considered setting the southern building into the ground by 1 metre but this was abandoned because of the extent of ramping required and the cost and disruption of rock breaking.



- 3.4.8 The southern building provides a green roof although the Applicant has not confirmed its support for this concept. However, there appears to be potential for mounding of earth against the building particularly on the southern side which has not been pursued despite the design principle above.
- 3.4.9 The control building perched over the southern portal looks to be a good design solution. There are also significant improvements in the impact of the southern building, however it remains a large and long footprint structure which has not been broken up into components.
- 3.4.10 There are also significant improvements in the effects of the northern building which has been reduced to four smaller block shaped structures. While smaller in scale the cast concrete and flat roof appearance risks a bunker type appearance. Again we have not been persuaded by the evidence that additional facilities could not be buried.
- 3.4.11 Both ventilation stacks have been significantly improved however despite this the appearance of bulk has not been able to be significantly mitigated. However the design has certainly moved in the direction we signalled in our report.
- 3.4.12 At EIC 27/88 it is acknowledged that “it could be a good outcome if the south building was largely underground.” We consider further enquiry of the technical and cost constraints of further undergrounding is warranted.
- 3.4.13 The stacks are now presented as ‘urban sculpture’ in a manner we might have contemplated. Finally we note that stack height has increased from 25 to 27 metres.

Landscape and Visual Integration

- 3.4.14 In EIC 28 (Brown) this evidence appears to be based on the Brown AEE report and therefore the as lodged ventilation buildings. At EIC 28/15 it states “*the physical presence, and likely visual dominance, of the vent structures / buildings at both tunnel portals remain of concern: at Waterview they will impart their own particular signature on the northern ‘gateway’ to Waterview, whereas at Alan Wood Reserve they will dominate much of that park’s residual open space.*”
- 3.4.15 EIC 28/16 states that NZTA has not adopted the revised design but is merely putting them up as an option. This matter requires urgent clarification in terms of what the Board and submitters understand to be the proposal that NZTA seeks to consent. We have previously recommended a fundamental review of the ventilation approach and this has been undertaken in architectural design terms. This has been undertaken although maximised undergrounding has been rejected. Clarification and further enquiry is necessary.
- 3.4.16 Our assessment of the ventilation buildings seems to be supported by the Brown evidence. For example, at paragraph 81:

“Viewed from locations that are not as directly exposed to the new motorway corridor and southern tunnel portal (such as Great North Road approaching from the south, Oakley Avenue or even Oakley Creek Reserve), the portal building and ventilation stack will introduce structures to the margins of Waterview that have an industrial quality. They will also act as local ‘landmarks’ that signal the presence of the southern tunnel portal and motorway, although proposed tree planting and architectural treatment of the proposed buildings should ultimately help to limit long-term impacts to a moderate level. Just as important, exposure

to both buildings structures from within the residential catchment south of Oakley Avenue, the Primary School, and Waterbank Crescent rapidly diminishes, so that such effects would be largely restricted to those residential properties and parts of the Oakley Creek Reserve in close proximity to the Sector 7 site.”

3.4.17 EIC 28/83-85 notes the effects during construction will be significant consistent with the view expressed above.

3.4.18 EIC 28/89-94 records similar opinions in relation to the southern ventilation buildings within the Alan Wood Reserve.

3.4.19 Against this assessment the concluding opinion in EIC 28/100 is surprising:

“Overall, it is considered that the development of SH20, as proposed within Sectors 7 – 9, is acceptable in terms of its landscape and amenity effects.”

3.4.20 Further, at EIC 28/122 the final view on the revised ventilation building design proposals is: *“In my opinion, the revised designs suggested are very positive and entirely compatible with the local landscape.”*

3.4.21 There is no support for relocation of the northern ventilation stack to the BP site or its vicinity on the basis that it would become a permanent feature of the Oakley Creek Esplanade reserve.

3.4.22 In EIC 29 (Hancock), another of the companion statements which describes the Project, two additional improvements to the Project are suggested at paragraph 148. They are the lighting of the ventilation building facade to address CPTED matters and re-instatement of the shared pedestrian/cycle path along the western side of Great North Road. This seems to be a measure able to be implemented by way of conditions (OT.1 is referenced).

Air Quality and Public Health

3.4.23 Air quality effects associated with the Project are assertively presented in EIC 23 (G. Fisher). Opinion expressed in the Executive Summary says at paragraph 11:

“The results show that the Project will have insignificant effect on both local and regional air quality, over and above what might have occurred anyway without the Project.”

Paragraphs 12-16 reinforces this critical conclusion.

3.4.24 The merits for a reduction in stack height are discussed in paragraph 60 and noted to be impractical and unwarranted based on the scientific evidence and the nature and scale of the perceived problem. Cost is noted as a significant inhibiting factor as well to achieving real and sustainable improvements in air quality. The overall assessment is that stack redesign is resource inefficient and not supported.

3.4.25 The lack of technical /scientific evidence for the adoption of air filtration processes is also forcibly addressed in paragraphs 52-70.

3.4.26 EIC 24/13 and 24, and more fully at 24/30-37 (Black) also reinforces the opinions expressed in EIC 23 (Fisher). This evidence considers all public health issues raised by submitters including mental health concerns. At paragraph 22 it is stated:



“In special cases, where further medical investigation is required, I have undertaken to remain involved as a Specialist Medical Practitioner. In all cases I am aware of, I have made contact and established an ongoing professional relationship with the relevant submitters.”

Such an arrangement could be incorporated into conditions along with a professional role and contribution for the practitioner in the Working Liaison Group (SO.12).

3.5 RECLAMATION AND MANAGEMENT ISSUES ASSOCIATED WITH MOTU MANAWA MARINE RESERVE AND COASTAL MARINE AREA

S42A Report Paragraph Reference	Topic for further consideration (Paraphrased)	Applicant’s Evidence in Chief Reference (EIC): (No./paragraph)
6.3.5	Design of SH causeway and its capability to accommodate sea level rise. NZCPS 2010 now requires consideration of the matter in relation to Policy 24: Identification of Coastal Hazards.	2/38-48 15/15-29 15/34-56 15/Annexure B 17/15 17/25-36
6.3.7	Jurisdictional and procedural questions about giving effect to the reclamation of land and the ability to carry out works associated with the Project.	
7.6.5 9.4.4	Consider scope for further mitigation associated with habitat loss at Motu Manawa Marine Reserve	2/181-/186 2/192-198 6/45-50 19/17-19 36/11-16
10.5.3	Confirm the distinction between the terms “total reclamation” and “permanent occupation of the CMA” as summarised in 17.6.2	16/79 16/27-28
10.5.13	(Ryder Consulting seek) confirmation that the mitigation measures to protect the marine environment from potential sediment and contaminant discharges can be sustainably implemented.	18/ 19/10-12
10.5.16	(Ryder Consulting ask) whether marine disturbance activities are likely to be negligible for existing sediment-bound contaminants.	18/ 19/35-38 19/46-50 19/55 19/58-06
10.5.20	Mitigation options and their implementation warrant caucusing between the NZTA and local and central government agencies that have an interest in and/or administer the Motu Manawa Marine Reserve. It is also necessary to involve those community interest groups that submitted on these matters.	19/70-74 19/78-83
9.5.2	Is the Board still required to make a recommendation to the Minister of Conservation for a restricted coastal activity under NZCPS 2010, Policy 29?	

Future Proofing the Causeway corridor

3.5.1 While various specialist statements discuss causeway design (EIC 15, EIC 16), it is EIC 17 that addresses directly the issue of the causeway’s design and capability to



'protect' against sea level rise. A two step management/design response is noted in EIC 17/15:

"The final design causeway crest height of 3.0 metres above Auckland Vertical Datum – 1946 takes into account a sea-level rise of 0.8 metres by 2100, storm-tide and wave overtopping hazards. The design incorporates "future proofing", where an additional crest height of 0.57 metres could be added when sea-level rise exceeds 0.8 metres above present-day levels."

The Applicant may provide a condition and or monitoring obligation to address sea-level issues if these matters are not already included in the track change version attached as Annexure C.

Recognition of Marine Habitat Loss

3.5.2 EIC 19 addresses the key issues concerning the merits for a compensatory area to be added to the marine reserve to recognise the permanent marine habitat loss. The issue is considered from a scientific perspective and the rationale for not supporting the extension to the reserve is further outlined in responses to individual submitter concerns (19/66-74).

3.5.3 We rely on the executive summary to conclude from the Applicant's perspective, that:

- Associated with construction of the Project will be permanent habitat loss of approximately 5.87 hectares (1% of the total marine reserve area);
- Temporary habitat loss and disturbance (approximately 7.25 hectares), discharge of contaminants and sediment, and noise and vibration disturbance can be 'adequately directly mitigated and /or minor or negligible';
- Mitigation of the adverse effects of permanent habitat loss can be off-set through remediation of inter-tidal mudflats over the toe of the causeway, a higher level of treatment of stormwater from road surfaces (to 80% total suspended solids compared to the accepted 75% standard), restoration of the coastal fringe habitat, and removal of 'gross litter' and debris from the coastal edge.

3.5.4 For the Board to continue to have an interest in this issue raises jurisdictional concerns involving other statutory processes. That is not to conclude that the Board should not seek clarification from the Applicant and submitters on such non-RMA related 'initiatives.'

Trial Embankment

3.5.5 The trial embankment proposal is canvassed in EIC 15/Annexure B and EIC 16/Annexure A. EIC 19/15 and 19/62-64 and EIC 28/104 also provides comment from a marine ecology and landscape perspective respectively, and we note that effects associated with its construction (within the footprint of the proposed works) and its removal is expected to be no more than minor.

3.5.6 We have no further information to determine whether an additional resource consent is required for these works. The Applicant should clarify this for the Board.



3.6 PROVISION FOR AND IMPLEMENTATION OF AN OPEN SPACE RESTORATION STRATEGY TO MITIGATE EFFECTS

S42A Report Paragraph Reference	Topic for further consideration (Paraphrased)	Applicant's Evidence in Chief Reference (EIC): (No./paragraph)
10.6.38	Confirm the timing and the provision of temporary and permanent sports fields and open space in and around Waterview (United and the wider environment of the Project).	28/200-202 29/88-100 30/80-89 30/144-272
10.6.42	Clarify the design and provision of open space areas and the preservation and integrity of the archaeological and heritage features and sites around Oakley Creek inlet.	

- 3.6.1 EIC 29 informs more fully the contribution to project development that urban design has made towards a multi discipline development of the Project. The Urban Design and Landscape Plans and the Structures and Architectural Plans inform on these elements of the Project.
- 3.6.2 Issues noted as still to resolve concern a reconfigured Waterview Reserve (Paragraph 84), and the final shape of open space and residential development in Hendon Park and Alan Wood Reserve (paragraph 85-87) taking into account the future rail corridor.
- 3.6.3 Pedestrian and cycle linkages are summarised on a project wide basis in paragraph 102 and go some way to assist understand Project related works, and the opportunities that can be taken up by other agencies. We remain of the view however, that a plan of the whole corridor showing the pedestrian and cycleway works, and the further opportunities and options particularly in relation to the connection between Waterview and Pt. Chevalier would be useful.
- 3.6.4 EIC 30 informs on the open space impacts of the Project and the measures to address these effects. A re-positioned Waterview reserve and widened esplanade reserves around Oakley Inlet are proposed (paragraph 68, Annexure C). CPTED considerations are noted (paragraph 73-75, and 99-105) to address a concern raised in our s42A Report.
- 3.6.5 We presume but cannot confirm that the Open Space strategy now accords with expectations and agreements made with the Auckland Council. At this stage the detailed staging/sequencing of temporary and or permanent relocation of recreational assets and facilities still remains unclear to us. We presume that this will not be clear until submitter evidence is exchanged.

3.7 MITIGATION OF SPECIFIC/SECTOR BASED EFFECTS

S42A Report Paragraph Reference	Topic for further consideration (Paraphrased)	Applicant's Evidence in Chief Reference (EIC): (No./paragraph)
10.2.15	Confirm there are no effects on the marae proposed for the Harbourview-Orangihina Park.	
10.2.24 10.2.31	Provision of acceptable mitigation addressing visual and vibration effects for residences adjacent to Te Atau Interchange (Milich Terrace, Alwyn Avenue, Titoki Street, Royal View Way for example).	28/150-153
10.2.30	Footprint of Construction Yard 1 to accommodate equestrian activities on the reserve.	1/195-196 37/70-72 28/203-213
10.3.16	Confirm that the navigable width of the Whau River is not compromised by construction effects.	2/32-33 17/62-65 17/101
10.4.5	Confirm whether permanent occupation of Rosebank Domain for the upgraded access and widened pedestrian/cycleway is consistent with the recreation reserve status of the land.	
10.6.10	Surveys of the current tenants in Waterview that would be affected by the Project to determine relocation preferences and match those with rental supply. This information would assist assess the scale and significance of the social effects of relocation.	
10.6.24	Confirm the adequacy of the noise mitigation when there are a number of sensitive receiving activities as the School and kindergarten in Waterview.	10/29 10/34-68 10/74 10/103-112
10.3.36	Consider CPTED (Crime Prevention through Environmental Design) review of the design for the Oakley Heritage Precinct.	30/68 30/99-105
10.7.9	Achieve the integration of noise barriers/landscape treatments near Sutherland Road, Parr Road and Novar Place so these structures do not adversely affect the residential outlook from adjoining properties.	28/59-60
10.8.60	Confirm the specific mitigation to safeguard the operation of the Waterview Primary School and relocated kindergarten to 19 Oakley Crescent will be supported by adequate performance conditions.	37/35 10/103-112 10/124-125 11/67-68
10.8.91 10.8.92 10.8.93	Address nuisance effects on Unitec student accommodation from the operation of Construction Yard 7 and whether this may extend to relocation of students and other mitigation measures.	10/118-123 10/126-130 11/59-64 11/73-77
10.8.101	Advise further on merits of relocation of kindergarten and school	
10.9.16	Response to Ryder assessment for further mitigation by providing fish access above the Oakley Creek waterfall. This is a matter that could be discussed further with Friends of the Oakley Stream and the Council.	
10.9.19	Confirm that reradiated noise from vibration associated with tunnelling operations can comply with proposed night time standards.	11/38-39 11/47-53
10.9.23	Confirm that there are no groundwater contamination issues associated with construction works in the vicinity of Phyllis Reserve and Harbutt Reserves (that were in part former landfills).	

10.10.63	Confirm the actual design for the operation of the concrete batching plant through the Concrete Batching and Crushing Management Plan to minimise dust emissions.	
10.10.70 10.10.71	Confirm whether noise effects associated with the construction activities in Sector 9 can be mitigated through management plans and performance standards and the circumstances where temporary relocation is necessary.	10/133-139 10/145
10.10.103	Confirm that the combination of effects from tunnelling and flooding will not have adverse effects on residential areas served by septic tanks.	

Visual impacts of the Te Atatu Interchange on residential amenity

3.7.1 Evidence suggests bunding will soften the base and lower parts of the wall and planting will not hide its profile in the short term but its profile will be lessened in the medium term. The current mitigation strategy remains appropriate from the Applicant's perspective.

Construction Yard 1 impacts on equestrian activities

3.7.2 Evidence suggests several alternative locations and orientation of the yard, but it is acknowledged they all come with some 'costs' in visual and amenity terms. Increased screening is offered as one compromise outcome (EIC 28/213), but this does not address the concerns of equestrian users of the area. EIC 1/195 indicates ongoing discussion is occurring with Auckland Council and the equestrian club 'to enable the Club to continue over the construction and for full use to be returned following construction works'. EIC 37/70-72 indicates a 30 metre wide bridle corridor is to be maintained and is subject to further negotiation.

Navigational concerns in Whau River

3.7.3 We note that the effect on the height clearance for watercraft of the Whau River Bridge is a reduction of 140 mm. While not a major change this may affect access for specific craft by reducing the tidal range and therefore time window that they can access under the bridge.

3.7.4 There is no evidence that we have seen that investigates specifically what craft that currently regularly use the bridge ie their mooring is in the Whau River, that would be adversely affected and to what extent. The submitters that have raised this concern may be able to provide helpful evidence.

3.7.5 While EIC 17 (at paragraphs 62-65) addresses the matter and suggests the effects are minor in terms of safe navigation during the construction period, the proposed condition offered (at paragraph 64) leaves discretion entirely with the Auckland Harbour Master, and in our opinion requires greater clarity of purpose and outcome in condition setting.

Noise mitigation for Waterview School and kindergarten

3.7.6 Understanding project noise and vibration issues and condition performance setting is a challenge. We note for example at EIC 10/29 "There will however, be times when full compliance with the criteria is not possible."

3.7.7 Noise effects concern Sector 5 and Sector 7. At paragraph 50 it is noted:



"I have predicted that most construction activities in Sector 5 will typically be below the daytime noise criteria. However, where activities will be required in close proximity to dwellings, or at night time, such as the construction of the ramp bridges crossing SH16, mitigation will need to be implemented. Such mitigation may involve the construction of temporary noise barriers, the restriction of where night time activities can be conducted, and potentially temporary relocation of residents."

3.7.8 Paragraph 51 goes on to say (in part): *"These measures will be developed in detail once a contractor has been appointed, and the CNVMP will be updated..."*

3.7.9 We emphasize the importance of our recommended approach to establish agreed performance standards in the relevant management plan(s) and conditions that cannot be changed so as to adequately safeguard residential amenity through the construction period.

3.7.10 In relation to Sector 7 we conclude from reading the relevant discussion at paragraphs 55-59 that achieving effective mitigation will be challenging and likely to impact on living and educational activities throughout the construction programme. We remain concerned that this is not a satisfactory management approach. Temporary relocation of families is not a desirable response but ultimately may be necessary if the alternative is not being able to meet stated performance standards.

3.7.11 The final management approach is still conducive to caucusing by the Applicant, Waterview Primary School Board of Trustees and Ministry of Education, and the Auckland Kindergarten Association.

Landscape and acoustic treatment for Sutherland Road, Parr Road and Novar Place properties

3.7.12 EIC 28/60 concludes that the adoption of noise abatement walls and screen planting should reduce visual and amenity effects "to a low level in 8-10 years".

Nuisance effects on Unitec accommodation Reradiated noise

3.7.13 EIC 10/118-123 notes that there is uncertainty around whether noise and vibration effects can be managed within acceptable limits. The management response will "be proactive in dealing with potential non-compliance" and that this may include temporary relocation of students. Temporary relocation is not a desirable response given the proposed and extended time for the construction works.

3.7.14 EIC 11 considers vibration in the tunnel section (Sector 8), and notes a paragraph 48 that vibration may be discernable to residents but should not result in discomfort. The assessment of vibration effects on the Unitec heritage building is assessed as "less than minor" with the adoption of the recommended conditions (paragraph 77).

3.7.15 We could not find the referenced discussion of "regenerated noise" in EIC 10. EIC 11 summarises the issue and then notes the term "structure borne noise" is the term referred to. The matter remains to be clarified for the Board.

Noise management associated with Construction Yard 9

3.7.16 EIC 10 notes at paragraph 145 the "potential upgrade to building envelopes" for dwellings in close proximity to the concrete batching plant. This needs clarification



for the Board to appreciate the nature of the works envisaged and how consent conditions could be given effect to.

3.8 PARTNERSHIP ARRANGEMENTS BEING CONSIDERED BY THE APPLICANT

S42A Report Paragraph Reference	Topic for further consideration (Paraphrased)	Applicant's Evidence in Chief Reference (EIC): (No./paragraph)
3.2.3 3.3.3	Provision of Memoranda of Understanding and relevant agreements for consideration by the Board	
10.6.6	Outline the partnership with the Auckland Council for temporary and permanent reserve management in Waterview.	37/70 37/58
10.10.95	Confirm arrangements with Auckland Council for the provision of sports facilities that better meet the future demands of the community.	
10.10.96 10.10.97	Confirm any arrangements with Housing New Zealand for the residual small areas of open space to be used for residential redevelopment.	

3.8.1 We noted the importance of understanding the nature of agreements that may be reached with key stakeholders to determine the overall effectiveness and implementation of measures to mitigate Project effects. This remains our objective, if the Board is to be fully appreciative of the arrangements and the timing of non-RMA measures that address or assist achieve the Project's outcomes.

3.8.2 We presume that fuller details of any arrangements will not be clear until submitter evidence is exchanged.

3.9 CONDITION SETTING AND MONITORING PERFORMANCE

S42A Report Paragraph Reference	Topic for further consideration (Paraphrased)	Applicant's Evidence in Chief Reference (EIC): (No./paragraph)
14.1.2	Confirm the validity of the omnibus approach for the provision of management plans to support both NORs and the resource consents.	1/121-123
14.2.1 14.2.3 14.3.5 14.3.6	Confirm the overarching requirement for: "accordance" rather than "general accordance"; Deletion of the term "subject to final design"; Deletion of the term "to the satisfaction of the Council"; and Detail Council's role is "certification."	29/19
14.2.11 14.2.12	Confirm the standardisation of timeframes to working days	
14.2.13	Clarify that all reporting obligations can be provided in monthly reporting to the Auckland Council.	
14.3.8 14.3.9 14.3.10 14.5.3 14.5.4	Confirm the purpose and makeup of the groups promoted within the Proposed Conditions advising on the construction programme, determining final designs, the assessment of draft management plans and the provision of information to the directly affected communities	37/Annexure B



10.8.54	Confirm that the provision of independent monitoring information in readily understandable form will form part of the reporting obligations of the Applicant to the Community Liaison Group (or similar) promoted in the draft conditions to the designation and resource consents.	37/Annexure B
10.8.66	A Temporary Construction Lighting Plan for Construction Yards 6 and 7 is not listed on the table of management plans on Page 12.4 and a draft is not provided in report G.10.	
10.9.35	Confirm there are appropriate conditions to address vibration, settlement or other construction issues associated with the operation of the Pak N' Save supermarket on New North Road.	

3.9.1 EIC 37 (Linzey) provides an amended set of proposed conditions in a track change format. We reiterate our general observation that the obligations placed on the Applicant and others for 'consultation and review', 'review and comment' and certification needs to be clear to all parties.

3.9.2 The more important proposed changes to conditions are (in summary only):

Condition Reference	Condition Topic	Condition summary
CEMP.4 CEMP.14	Inclusion of an Electrical Infrastructure Site Development and Management Plan	Address safety surrounding Transpower high voltage transmission lines
PI.2	Provision of a Communications Plan to the Community Liaison Groups	Provides a more informed basis for community involvement and understanding of the Project
PI.5 PI.6 PI.7	Provision for three Community Groups and extended membership makeup	Specific review and commentary role for nominated Plans
OT.1	Integration with local road network	Performance goals set for Network Integration Plan.
QA.4	Air quality monitoring	Frequency and reporting now stipulated
LV.1 LV.2 LV.7 LV.8	Urban design and landscape	Performance objectives provided for ventilation buildings and stacks, and refinement to the landscape planting along sensitive parts of the corridor
SO.2 SO.3 SO.4 SO.5	Social	Inclusion of various community groups in the preparation of specific plans which is extended to include Rosebank Domain and Harbourview-Orangihina Reserve and other site specific facilities
SO.9. SO.10 SO.11	Social	Post-construction monitoring and reporting in relation to Ministry of Education managed school and kindergarten at Waterview
SO.12	Working Liaison Group	Membership and scope of forum's responsibilities is now provided
S.1-S.16	Ground Settlement	Improved level of monitoring including Waterview school facilities, and nominated properties in Cradock, Powell and Great North Road.
G.7	Groundwater	Improved level of monitoring at Phyllis Street Reserve in relation to the former landfill site
CL.9 CL.10	Contaminated Land and Contaminated Discharges	Improved level of monitoring and reporting
SW.15	Stormwater	Improved level of monitoring and reporting relating to tunnel water quality
STW.20	Streamworks Environmental	Inclusion of a provision for

	Management Plan	consultation with iwi and Friends of Oakley Creek
C.13 – C.16	Coastal	Improved level of monitoring and reporting relating to Whau River side drainage channel, tidal channel realignments works, Rosebank culvert, and the intertidal beach seaward of construction areas in the CMA
M.11	Marine Ecology	Excavated sediment stockpiling and return

- 3.9.3 These propose changes address a number of key matters raised in our ‘action’ list and in particular the informed involvement of a range of community groups to influence decision making on final design and the physical works associated with the Project. The changes also emphasise an increased level of monitoring and reporting. The challenge remains to ensure certification is against clear objectives and performance measures recorded in the suite of management plans. That exercise is still required in our opinion.
- 3.9.4 We remain unclear whether the Auckland Council accepts the amended conditions where it has a clear role in certification.
- 3.9.5 We presume that this will not be clear until submitter evidence is exchanged.

4 CONCLUSIONS

- 4.1 This Addendum Report updates our Report dated 7 December 2010. We have addressed issues raised and responses provided by the Applicant (NZTA) in their evidence in chief prepared for the consideration of the Board of Inquiry.
- 4.2 The key points to come from our assessments of this evidence are:
- 1 The extent of any further changes proposed for the Project is not clear from our review of the evidence.
 - 2 An additional controlled activity resource consent is required pursuant to Rule 12.5.11 Auckland Regional Plan for modification of heritage sea wall, with the relevant assessment already presented in G.2 Assessment of Archaeological Effects.
 - 3 A trial embankment proposal is incorporated as a further design element for upgrading the causeway, and we note that effects associated with its construction (within the footprint of the proposed works) and its removal is expected to be no more than minor. However, we have no further information to determine whether an additional resource consent is required for these works.
 - 4 There is a procedural step that should apply for the concurrent and integrated consideration and certification of management plans and the consideration of the Outline Plan of Works design details of height, shape and bulk for example for the Project that does not duplicate the 'consenting process'. Further, the detailed design has yet to be undertaken so this reinforces the general duty to provide OPW as and when this is 'enabled' through the final design process.
 - 5 Issues or matters for clarification remain regarding local connections at Waterview Interchange for walking, cycling and vehicle access. Preliminary design options should be drawn up to demonstrate comparative effects (benefits and costs).
 - 6 In relation to the location, scale and design of the ventilation buildings it cannot be assumed that the "re-design" presented in the evidence-in-chief is the preferred design outcome sought for these structures by the Applicant. This is confusing, as if this is not the preferred option then on what basis can the Board consider the proposal to be part of the application documentation. It cannot assist in forming an opinion as to the changes to environmental effects associated with the Project, and condition framing. The extent of further undergrounding of these structures remains equally unclear and therefore uncertain. This too is unsatisfactory and needs confirmation.
 - 7 The focus of public submissions on the air quality effects of the Project has been robustly canvassed by the Applicant. The conclusions are unequivocal and we have no reason to challenge the evidence; they are: based on the most thorough air quality effects assessment undertaken in New Zealand the air quality effects are minimal, all relevant standards can be met, there are no additional health effects and the mitigation measures required are appropriate. This is the conclusion from the public health perspective too

based on practitioner experience in environmental and public health medicine.

- 8 We emphasize the importance of our recommended approach to establish agreed performance standards in the relevant management plan(s) and conditions that cannot be changed so as to adequately safeguard residential amenity through the construction period. Noise effects and the development of appropriate acoustic mitigation is one most topical example.
- 4.3 The challenge remains to ensure certification is against clear objectives and performance measures recorded in the suite of management plans. That exercise is still required in our opinion.

