Before a Board of Inquiry
MacKays to Peka Peka Expressway Proposal

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under:	the Resource Management Act 1991
in the matter of:	Notice of requirement for designation and resource consent applications by the NZ Transport Agency for the MacKays to Peka Peka Expressway Proposal
applicant:	**NZ Transport Agency** *Requiring Authority*

Statement of evidence of **Robert Schofield** (Planning) for the NZ Transport Agency

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Dated: 7 September 2012

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STATEMENT OF EVIDENCE OF ROBERT JOHN SCHOFIELD FOR THE NZ TRANSPORT AGENCY

QUALIFICATIONS AND EXPERIENCE

1 My full name is Robert John Schofield.

2 I am a Director/Planner of Boffa Miskell Limited, a national firm of consulting planners, ecologists, landscape architects and other environmental specialists. I hold the qualifications of BA (Hons) and Master of Regional and Resource Planning (Otago). I am a Fellow of the New Zealand Planning Institute, and a past President (1998-2000).

3 I have been a planning consultant based in Wellington for over 26 years, providing consultancy services for a wide range of clients around New Zealand, including local authorities, land developers, and the infrastructure and power sectors. My experience includes responsibility for the preparation of a number of notices of requirement and resource consent applications for a wide range of development projects, including infrastructure projects. Examples include:

3.1 State Highway 2 Melling to Kennedy-Good Upgrade for the NZ Transport Agency (*NZTA*), involving engineering and environmental constraints analysis, and the development and assessment of alternative design options;

3.2 The original Transmission Gully designation (lodged in 1996), engaged by the four territorial local authorities to assess and report on the proposed designation for the Transmission Gully motorway project, including the development of conditions for the designation;

3.3 State Highway 2 Te Marua-Kaitoke Realignment, involving the identification and assessment of alternative alignment options, consultation and assessment of effects on the environment;

3.4 Transpower New Zealand Limited's Wairakei to Whakamaru new 220kV line, involving the assessment of alternative routes and alignments, consultation, the assessment of effects on the environment, and the development of conditions for the designation and resource consents;

3.5 The Manapouri Tailrace Amended Discharge project, involving the assessment of effects on the environment of increasing the discharge of water through the Manapouri Power Scheme into Doubtful Sound, Fiordland, and the development of conditions of consent; and

3.6 Masterton Wastewater Treatment Upgrade, Homebush, involving the assessment of options for upgrading Masterton's sewage treatment plant, consultation, assessment of effects on the environment, and development of conditions of designations and resource consent.

4 From 2008, I have also been involved in providing strategic planning advice to NZTA on, firstly, the Transmission Gully Project, and then, from 2009, on all roads of national significance (*RoNS*)[1] projects in the Wellington Region.

5 I have also been involved with a number of strategic planning exercises on transportation issues, including:

5.1 The Western Corridor Study, a multimodal assessment of the long-term transportation options for the Wellington Region's western transportation corridor (Ngauranga to Peka Peka), in which I focused on the Kāpiti section. The study produced the Western Corridor Plan, adopted as part of the Wellington Regional Land Transport Plan, which identified the need to upgrade SH1 to four lanes as well as undertaking a number of public transport improvements.

5.2 The Wellington City Northern Suburbs Public Transport Study, responsible for the urban planning and consultation aspects of the study which reviewed the options for providing effective and cost efficient public transport.

5.3 The Palmerston North/Manawatu Transportation Strategy, assessing scenarios in the development of a transportation strategy for Palmerston North City and Manawatu District.

6 I am an accredited RMA decision-maker (Chair endorsed) under the Ministry for the Environment's training, assessment and certification programme for Resource Management Act 1991 (the *RMA* or *the Act*) decision-makers. I have been appointed as a Commissioner (either sole or as part of a Panel) on a wide range of resource consent applications, proposed plan changes, and designations since 2000, and have been responsible for the decisions on those applications. My decision-making experience has included deciding on conditions of consent in relation to, among other things: the management of earthworks, traffic management, hazardous

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[1] Roads of National Significance were first identified in the Government Policy Statement on Land Transport Funding 2009/10-2018/19 (GPS 2009) as a priority area of transport funding. The Wellington Northern Corridor (SH1 between Wellington Airport and Levin) is one of the seven RoNS in New Zealand, and comprises a number of projects, including the MacKays to Peka Peka Expressway. The RoNS projects have continued through into the latest GPSLTF, which came into effect on 1 July 2012.

substances management, road closures, construction management, and noise mitigation.

7 My evidence is given in support of the Notice of Requirement (*NoR)* and applications for resource consent lodged with the Environmental Protection Authority (*EPA)* by the NZTA for the construction maintenance and operation of the MacKays to Peka Peka Expressway Proposal (*the Project)*.

8 I am familiar with the area that the Project covers and the State highway and local roading network in the vicinity of the Project.

9 I am a contributing author of the Assessment of Environmental Effects (*AEE)* lodged in support of the Project and have peer reviewed the full report.

10 I have read the Code of Conduct for Expert Witnesses as contained in the Environment Court Consolidated Practice Note (2011), and I agree to comply with it as if this Inquiry were before the Environment Court. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

11 My evidence will deal with the following:

11.1 Background and role;

11.2 Summary of matters before the Board;

11.3 Other non-RMA statutory approvals required for the Project;

11.4 Description of the existing environment;

11.5 Reasonable necessity of the designation for achieving the Project objectives and alternatives;

11.6 Approach to the management of environmental effects;

11.7 Assessment of effects on the environment;

11.8 Assessment against relevant policy and planning documents

11.9 Section 105 and 107 considerations;

11.10 Part 2 RMA analysis;

11.11 Outline Plan waiver;

11.12 Response to submissions; and

11.13 Conclusions.

EXECUTIVE SUMMARY

Structure of evidence

12 My evidence commences by setting out the RMA approvals required for the Project, a description of the existing environment, and the necessity of the designation for achieving the Project objectives. I then outline the approach undertaken to the management of effects in the design, construction and operation of the proposed Expressway, which I follow with an overall assessment of the effects of the Project on the environment. I then outline the key conclusions of my assessment of the Project against the relevant planning instruments, and in respect of s105 and s107 considerations. I also assess the Project against the purpose and principles of the Act under Part 2. I finally address those matters that have been raised by submitters in relation to the planning aspects of the Project.

The matters before the Board

13 The NZTA is seeking to designate a corridor of land between Mackays Crossing and Peka Peka on the Kāpiti Coast to enable it to build and operate an expressway, as part of the upgrading of State Highway 1 (*SH1*) between Levin and Wellington International Airport. I consider a designation to be an appropriate mechanism to provide for the operation and longer-term security of this important new infrastructure, as it would enable the NZTA to meet its objectives for the Project. These seek to establish a new section of SH1 built and operated to expressway standards in a manner that appropriately avoids, remedies or mitigates the effects on the environment.

14 In my opinion, the documentation that comprises this application will allow all actual and potential effects of the Project on the environment to be thoroughly considered by the Board and submitters. In particular, the AEE[2] provides a comprehensive summary of the actual and potential effects of the Project on the environment and the methods proposed to be used to avoid, remedy or mitigate such effects. The AEE is based on and supported by a wide range of supporting technical information,

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[2] The AEE is contained in Volume 2 of the application, and is supported by the technical reports in Volume 3, the proposed management plans in Volume 4 and the Plan Set in Volume 5

including expert assessments, proposed management plans, plans, and other information.

The assessment underpinning the application

15 I consider that the development of the alignment and design of the proposed Expressway has been undertaken in accordance with the requirements of s171 of the RMA, in that the NZTA carried out a robust assessment of, and developed a comprehensive response to, the actual and potential adverse effects on the environment, having particular regard to the purpose and principles of the Act, the relevant provisions of the applicable planning documents, alternative routes, sites and methods, and whether the designation is reasonably necessary to achieve the Project objectives.

16 In the alignment and design of the proposed Expressway, a robust and comprehensive process of investigation and alternatives assessment was undertaken, supported and informed by research, field studies, technical analyses, design exploration, and consultation. The process of evaluating alternatives was based on well-established decision-making methodology used to analyse complex problems, where competing and interrelated factors need to be considered. These factors included environmental considerations, particularly those matters under Part 2 of the RMA.

17 The decision-making process was also informed by a staged consultation and engagement programme, in which the options and reasoning for preferences were put to the community and stakeholders for feedback.

Necessity for designation and benefits of the Project

18 I am satisfied that the designation is necessary to ensure that the benefits from the proposed Expressway would be appropriately realised. In particular, the Project would provide for a future-proof, long-term solution to the current deficiencies of State Highway 1, significantly improving the safety and security of the transport network of the Wellington Region, providing an alternative route through this part of the Kāpiti Coast and delivering improved journey reliability.

19 Consequently, the Project would yield positive economic benefits arising from a more resilient and uncongested State highway, not only at a regional and national level, but also locally through improved accessibility and a more efficient local roading network. The Project is also forecast to accelerate employment growth within Kāpiti and the uptake of business and commercial land, thereby promoting district level economic benefits.

20 The Project is also a critical element of the Wellington Northern Corridor RoNS, and would assist in delivering a consistent journey environment along SH1 into and out of the Wellington Region.

21 The designation would also enable the delivery of a safe off-road cycleway/walkway through the Raumati-Paraparaumu-Waikanae urban area that would connect with key recreational and community networks and facilities. Pedestrian and cycle connections across the Expressway corridor have also been provided.

Management of effects through design and conditions

22 The designation would also ensure that any potential adverse effects on the environment will either be avoided or, where this is not practicable, appropriately remedied or mitigated.

23 This is achieved partly by how the Expressway has been designed. That design incorporates an integrated package of mitigation measures to address the visual, noise, stormwater and other effects of the proposed Expressway. Associated consent and designation conditions require those design features to be incorporated.

24 In addition, the proposed consent and designation conditions specify various standards, controls and requirements for the management of effects. Central to effects management is a suite of management plans and associated measures. These, together with the proposed consent and designation conditions, will ensure that effects on the environment of both the construction and operation of the Project are appropriately managed.

Assessment against statutory, policy and planning provisions

25 I have undertaken an assessment of the Project against the relevant provisions of the RMA and the most relevant provisions of the applicable national policy statements, national environmental standards, the Wellington Regional Policy Statement, regional plans and the Kāpiti Coast District Plan.[3] I conclude from this assessment that the Project will be generally consistent with the objectives and policies of these planning instruments, notwithstanding that the designation would enable the development of a significant section of roading infrastructure that was not envisaged by the current District Plan.

26 In terms of the requirements of sections 105 and 107 of the Act, the applicant has considered alternative ways to discharge sediment during construction, having regard to the nature of the discharge

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[3] This assessment is contained within Chapter 35 of the AEE, with further detail on the specific provisions relevant to the Project contained in Technical Report 2 – Analysis of Policy Framework Objectives and Policies

and the sensitivity of the receiving environment, particularly the important wetlands downstream from the route. A range of treatment methods will be able to be used, combined with other techniques to minimise the potential for sediment runoff.

Summary of my conclusions

27 Overall, I conclude that the Project will achieve the sustainable management purpose outlined in Part 2 of the RMA as it will result in the appropriate use, development and protection of natural and physical resources with, on balance, the overall benefits exceeding long-term adverse effects. In my opinion, the Project will provide for the reasonably foreseeable needs of future generations, and will enable the NZTA to provide for the economic, cultural and social wellbeing and safety of people and the Kāpiti Coast and greater Wellington communities.

28 Finally, in regard to the issues raised in submissions, no new matters have been raised that affect my assessment or my conclusions. However, I accept that some concerns may be best addressed through a further refinement of the proposed conditions of designation and resource consent.

BACKGROUND AND ROLE

29 I am the Consents Manager for the Project and was appointed to primarily oversee preparation of the NoR and applications for resource consent, manage the alternatives assessment process, assist with briefing technical specialists, review technical reports, coordinate the inputs of engineering and environmental specialists and advise the NZTA on planning matters and processes.

30 I am also a member of the Alliance Management Team (AMT), which is the decision-making team overseeing all day-to-day aspects of planning, design and construction matters for this project. That includes making recommendations to the Project Alliance Board (PAB) and to NZTA decision-makers on alignment, design and mitigation matters (the structure of the Alliance and the decision-making process is outlined in the evidence of **Mr Andrew Quinn**).

31 I am the author of Part I (Statutory Assessment) of the AEE (Volume 2) and co-author of Part H (Management of Environmental Effects, Volume 2) of that report.

32 The balance of the AEE and the consultation summary report was prepared by a team of planners working under my supervision. In conjunction with the Approvals Manager for the Project, I oversaw the preparation of the AEE report, including peer review of the report prior to finalisation and lodgement.

33 I played a key role in implementing the consultation strategy that was prepared for the Project. This included attending Project Open Days and Expos and a number of one-on-one meetings with tangata whenua, key stakeholders and residents.

34 I also played a key role in the development of proposed designation and resource consent conditions.

35 My evidence draws from and relies on the expert evidence of a range of technical specialists as indicated throughout my evidence.

SUMMARY OF MATTERS BEFORE THE BOARD

Summary of Notice of Requirement

36 The NoR is for the designation of land in the Kāpiti Coast District Plan (*the District Plan*). The designation is for the construction, operation and maintenance of the Project.

37 The location of the area subject to the NoR is illustrated in Figure 7.5 of the AEE.[4]

Summary of resource consents required

38 The 30 applications for resource consent cover all the anticipated activities required to construct and operate the Project (other than those land use activities that would be authorised by the designation). In terms of the RMA's categories of resource consent, those sought include regional land use consents, discharge permits and water permits required by the regional planning documents. In addition, a land use consent is sought in terms of requirements of a National Environmental Standard governing contaminated land.

39 For convenience, the resource consent applications have been put into five groups based on their respective purpose and activity associations. The five groups are:

39.1 *Group A:* Undertaking works on contaminated land (NSP 12/01.002);

39.2 *Group B:* Bulk earthworks and construction erosion and sediment control (NSP 12/01.003-005, NSP12/01.029-030);

39.3 *Group C:* Crossing, occupation, realignment, reclamation and use of waterbodies (NSP 12/01.006-023);

39.4 *Group D:* Borehole construction and taking and diversion of groundwater (NSP 12/01.024-026); and

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[4] Page 164

39.5 *Group E:* Partial reclamation and removal of vegetation in the beds of wetlands (NSP 12/01.027-028).

40 I consider this approach to the grouping of applications to be appropriate as environmental effects have been identified and assessed, and associated management approaches developed, on a Project-wide and/or catchment-wide basis. I understand that the Greater Wellington Regional Council (*GWRC*), which would have responsibility for administering the consents sought, is supportive of the way the applications are bundled.

41 Table 3.4 of the AEE[5] outlines the full scope and activity status of the resource consents sought. Where related consents have different activity classes, the approach taken under the RMA is to bundle them and treat them according to the strictest activity class in the bundle. Overall, all of the applications for resource consent for the Project will be assessed as having a "discretionary activity"[6] status.

42 I note that the s149G Key Issues Report from GWRC queried whether all the necessary resource consents had been applied for; in particular, a water permit for the damming of flood flows at proposed culvert no.38 (Peka Peka) and the land use consent for that structure. I can confirm that resource consents would be required for those two matters, but were inadvertently omitted from the applications lodged with the EPA (although the assessment includes this aspect of the Project). In consultation with GWRC officers, it has been agreed that consent for this aspect of the Project can be sought at a later date.

43 I also note that Key Issues report from GWRC suggests that it likely resource consent may be required for restoring part of the former oxidation ponds at Waikanae Beach (now part of the Pharazyn Reserve). At this stage, my opinion is that resource consent will not be required as these ponds are artificial concrete lined structures.

44 There may be a number of other minor matters for which it may be necessary to obtain at a later date. For a Project of this scale, it is not unusual for a number of minor resource consents to be obtained as part of the detailed design and construction process.

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5 Volume 2, Folder 1 of 2, page 61

6 The RMA specifies four activity classes for resource consents - "controlled", "restricted discretionary", "discretionary", and "non-complying" (s.87A)

OTHER NON-RMA STATUTORY APPROVALS REQUIRED FOR THE PROJECT

45 A number of further statutory approvals will also be required for the Project under other statutes, and which fall outside the Board's purview. These include approvals for works to modify, damage and destroy archaeological sites under the Historic Places Act 1993, approval to revoke the reserve status of a small area of land within Queen Elizabeth Park under the Reserves Act 1977 and, potentially, approval for the relocation of lizards or any other fauna protected under the Wildlife Act 1953.

DESCRIPTION OF THE EXISTING ENVIRONMENT

46 The Project is located within the Kāpiti Coast District, within the Wellington Region. Due to the Kāpiti Coast's proximity to Wellington and its extensive sandy beaches, the railway townships at Paraparaumu and Waikanae and the small beachside settlements at Raumati (Raumati South and Raumati Beach), Paraparaumu Beach and Waikanae Beach have grown rapidly over the last fifty years into a substantial urban area, now accommodating over three-quarters of the Kāpiti Coast District's population of 49,860 (2011).[7]

47 The route of the proposed Expressway is located on a coastal plain, comprising a complex dune system with inter-dunal wetlands and low-lying peaty land, with some alluvial soils in the vicinity of the Waikanae River. As outlined in the evidence of **Mr Boyden Evans**, the proposed crossing point of the Waikanae River is well upstream of the estuary and has no perceptible coastal characteristics.[8] I also note that the crossing point is upstream from and outside the area of the Waikanae River estuary delineated in the Wellington Regional Coastal Plan as coastal marine area.[9]

48 Most of the proposed Expressway alignment is located within an area long designated for a major road; indeed, the current urban form of the District has largely developed around this roading corridor, as can be shown on aerial photographs of the area. A motorway along this alignment was first proposed in 1956 when a middle line proclamation for a proposed motorway between Paekākāriki and Ōtaki (as part of the proposed Wellington to Foxton Motorway) was put in place; this route was later designated for motorway purposes in 1965 and again in 1976. In the late 1990s,

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7 Statistics NZ estimates as at 30 June 2011: the combined population of the Paraparaumu-Raumati and Waikanae Community Board areas was estimated to be 40,100, which is 80.4% of the District's total population of 49,860.

8 Paragraphs 42 - 43, **Mr Evans**' evidence-in-chief

9 The upper limit of the coastal marine area as defined in Figure 1.24 of the Regional Coastal Plan, Appendix 1, is opposite the southern end of Queens Road, approximately 1.5km downstream from the Expressway crossing point

the designation for the route was replaced by a designation for a local arterial road, the Western Link Road (refer to the evidence of **Mr Roderick James** for further detail on the history of the Project: more information is also provided in Chapter 2, AEE, Volume 2).

49 The proposed Expressway route passes through a mixture of semi-urban, urban, semi-rural and rural environments:

49.1 At its southern end, the route traverses a small part of the northeastern corner of Queen Elizabeth Regional Park;

49.2 Between Poplar Avenue and the Wharemauku Stream, the route is located within the residential neighbourhoods of Raumati South and Raumati Beach, including part of the undeveloped corridor of land that separates these communities;

49.3 Between Wharemauku Stream and Otaihanga Road, the route runs adjacent to the Paraparaumu town centre and Kāpiti Airport, and between a number of residential neighbourhoods which sit either side of the undeveloped corridor;

49.4 North of Otaihanga Road through to the Waikanae River, the route passes through semi-rural and rural settings in the Otaihanga neighbourhood;

49.5 North of the Waikanae River through to Te Moana Road, the route traverses a mix of semi-rural and residential environments. Parts of this area are of recreational and cultural importance;

49.6 North of Te Moana Road through to Smithfield Road, the route passes through semi-rural land zoned for future urban development; and

49.7 At the northern end, from Smithfield Road to Te Kowhai Road, the route passes through a predominantly rural area containing rural residential enclaves.

50 The Project footprint encompasses areas of native and exotic vegetation, sand dune systems, wetlands, pasture and discrete areas of urbanised land. Much of the Kāpiti District has been modified by human activity over several hundred years resulting in a variable range of terrestrial (land-based) ecological habitats along the route, with much of the area either regenerating or modified. Protected from development by previous designations, large parts of the proposed route contain either regenerating indigenous vegetation or exotic pastoral vegetation (refer to paragraphs 64 - 65 of **Mr Matiu Park's** evidence).

51 The Project traverses seven hydrological catchments. The ecological values of the streams in these catchments vary. The catchments range from highly to moderately modified, and the water quality is affected by urban and farming activities. All catchments traversed by the Project flow east to west to the Kāpiti Coast. The Waikanae River and its tributaries is the largest of these catchments, with the lower part of this catchment containing wetland and estuarine ecosystems with significant ecological value (refer to evidence of **Dr Sharon de Luca** and **Dr Vaughan Keesing**). However, I note the Project does not traverse these lower catchment areas.

52 As outlined in the two Cultural Impact Assessments prepared for the applications,[10] Māori have had a long history and traditional relationship with the Kāpiti Coast, with its plentiful resources, benign climate and strategic location. While agricultural and then urban development has affected this relationship, iwi still maintain a strong spiritual, cultural and physical ties to the Kāpiti Coast, and take an active interest in the protection and enhancement of its natural environment.

53 In particular, the area between the Waikanae River and Waimeha Stream, inland of Waikanae Beach, is of significant historical Māori habitation, as well as spiritual and cultural importance. Under the iwi mandated stewardship of the Takamore Trust, this area (which is informally referred to as the Takamore Cultural Heritage Precinct) contains a NZHPT registered wāhi tapu, urupā, natural features of cultural value, and sites of historical importance.

54 A detailed description of the existing environment is provided in Volume 2 Chapter 6 of the AEE and, in the interests of brevity, I refer the Board to this chapter for further information. In addition to describing the general environmental context, Chapter 6 also outlines the environment within each of the four geographic sectors which the Project has been divided into for assessment purposes.

REASONABLE NECESSITY OF THE DESIGNATION

Section 171(1)(c)

55 The AEE and the evidence of **Mr James**, **Mr Quinn** and **Mr Andrew Murray** demonstrate that the work is reasonably necessary to assist the NZTA to achieve the Project objectives (refer paragraph 67 of **Mr James'** evidence). In particular, the Project:

55.1 is a critical element of the Wellington Northern Corridor RoNS;

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[10] Volume 3: Report 11, Cultural Impact Assessment prepared by Takamore Trust; Report 12, Cultural Impact Assessment prepared by Te Ati Awa ki Whakarongotai

55.2 provides an alternative strategic route north of Wellington and improved route resilience;

55.3 delivers an improved journey time reliability from, to and through Wellington's CBD, key industrial and employment centres, port and airport;

55.4 delivers significant safety improvements for travellers on SH1;

55.5 enhances the efficiency of the State highway and surrounding transport network;

55.6 it will create opportunities for enhanced economic growth, both locally and inter-regionally (as outlined in the evidence of **Mr Mike Copeland**);

55.7 it would be integrated into the urban form of the Kāpiti Coast, the current form of which has largely developed around a major future roading corridor, and has taken into account future patterns of urban development (as outlined in the evidence of **Mr Marc Baily**); and

55.8 addresses the immediate and long-term social, cultural, land use and other impacts on the Kāpiti Coast District and its communities by avoiding, remedying or mitigating any such effects through route and alignment selection, Expressway design and conditions (as outlined in the evidence of **Ms Julie Meade Rose**, **Mr Baily** and **Mr Amos Kamo**).

56 The proposed designation would enable the construction and operation of a section of SH1 built to expressway standards, as well as the ancillary work, including a shared cycle/walkway, stormwater treatment, noise attenuation and landscape treatment. Therefore, in my view, the mechanism of a designation is reasonably necessary to achieve NZTA's objectives.

CONSIDERATION OF ALTERNATIVES

Section 171(1)(b)

57 I consider that a robust analysis of the alternatives to achieve NZTA's objectives for the Project has been undertaken. This process is outlined in Chapter 9 of the AEE and is further discussed in the evidence of **Dr James Bentley** and **Mr Noel Nancekivell**.

58 A rigorous multi-criteria assessment (*MCA*)[11] was undertaken to assess four Expressway route options[12] against a suite of criteria agreed by a panel of experts as being appropriate to address the statutory requirements of the RMA and the Land Transport Management Act 2003 (*LTMA*). The criteria addressed both cost and non-cost aspects; the non-cost aspects being movement, built environment, cultural/heritage; natural environment, social/community, economic, and implementation timeframe, while cost related aspects were costs and benefit/cost ratio. The options were evaluated against these criteria by a range of experts with relevant technical knowledge and experience and a good understanding of the study area. Sensitivity testing was also undertaken to determine the robustness of the findings.

59 The MCA process confirmed the Project as the preferred route option when assessed against the non-cost criteria: the route for the Project has marked advantages over the other options in most non-cost categories, and is, in overall terms, the superior route for the construction and operation of an Expressway. The process also identified the Project as the preferred route option when assessed against the combined non-cost and cost criteria, with the Project having a 'significant' positive difference over the other route options.

60 The cost assessment of the four Expressway route options confirmed that the construction costs of the Project are significantly less than any of the other three route options: the 95th percentile cost estimates[13] indicate that the other route options would be between 32% and 57% more costly to construct. Furthermore, the property acquisition costs of the other route options would be two to three times than that for the Project route.

61 The economic assessment undertaken at the MCA phase concluded that the Project would have a significantly higher benefit-cost ratio (BCR) than the other route options: the estimated Project BCR at the time of the MCA alternatives stage was 0.95, compared with ratios of between 0.57 and 0.66 for the other options. **Mr Craig Nicholson** and **Mr Copeland** discuss the economic assessment of the Project in their evidence.

62 Sensitivity testing of the MCA results was undertaken and confirmed that these results were relatively insensitive to different weightings

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11 Also known as Multi-Criteria Analysis Tool (MCAT) or Multi-Criteria Decision-making Analysis

12 The four route options were: Expressway following WLR Corridor (the Project); Western Corridor; Eastern Corridor; Existing State Highway Corridor

13 These estimates represent a 95 percentile prediction that the probability of the final outcome cost exceeding the P95 value is 5%

applied to particular assessment criteria. The unweighted ranking showed the Project as the sole preferred route option. When a greater weighting was afforded to natural environment criteria, it still ranked first, albeit first equal with the Eastern Route option. When a greater weighting was afforded to cultural/heritage outcomes, it ranked fourth. However, the Project route demonstrated significantly less effect than the other route options in terms of the impacts on residential and commercial properties and on the urban environments of Paraparaumu and Waikanae generally.

63 The total number of properties directly affected by the Project (in that all or part of these properties would be required for constructing the proposed Expressway) was estimated at the time of analysis to be 83, with 19 buildings directly affected. In comparison, the number of directly affected properties for the other route options ranged between 209 and 368, with between 127 and 241 buildings directly affected.

64 Based on this assessment and my knowledge of, and involvement in, the identification, design and evaluation of the route and alignment options for the Project, I am of the opinion that a robust analysis was undertaken and that the most appropriate option has been chosen.

APPROACH TO THE MANAGEMENT OF ENVIRONMENTAL EFFECTS – KEY PRINCIPLES AND METHODS

65 The methods proposed for the management of environmental effects (including through proposed designation and consent conditions) is outlined in Chapter 31 of the AEE.

66 Those methods are underpinned by certain resource management principles, which I next explain.

Principles applied to effects' management

Part 2 RMA – Purpose of Sustainable management

67 The following is an extract of the RMA's purpose section (section 5(2)), in which I highlight two inter-related aspects which have informed the approach to effects management for the Project:

> *...**sustainable management** means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which **enables** people and communities to provide for their social, economic, and cultural well-being and for their health and safety, while –*

(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

*(c) **avoiding, remedying, or mitigating any adverse effects of activities on the environment.**"*

Enabling the use, development and protection of resources

68 The RMA is often described as an enabling statute in that "sustainable management" refers to enabling the use, development and protection of resources. Enabling the development of the Project, as a major section of roading infrastructure, will inevitably have some effects on the environment: the RMA is not a 'no effects' piece of legislation. Unavoidably, development will bring about a change in conditions to the environment in which it is located, and usually such changes will have varying impacts on different parties and interests. Accordingly, managing the use, development and protection of resources will inevitably involve managing conflicting considerations and tensions.

69 The decision-making process under the Act requires a broad overall judgement to be made, taking into account a wide range of considerations, including the positive (or enabling) aspects of a proposal, and to what extent any actual or potential adverse effects on the environment have been or are able to be satisfactorily avoided, remedied or mitigated.

Avoiding, Remedying or Mitigating Adverse Effects on the Environment

70 The requirement of the Act to avoid, remedy or mitigate adverse effects on the environment is not a hierarchy of thresholds – in other words, an applicant need not demonstrate that all efforts to avoid adverse effects on the environment have been exhausted before it may then propose remediation or mitigation.

71 It is not always possible to avoid all adverse effects: the costs and practicalities of options may simply rule out many measures of avoidance. Furthermore, avoiding effects in one aspect may be translocating the effects to another party or receiving environment: for example, re-aligning a proposed road to avoid effects on one aspect of the environment may create other adverse effects elsewhere or on other parts of the environment.

72 Therefore, the decision-making process has to weigh up different opportunities for effects avoidance, not only against their cost and practicalities, but also against the relative impacts on other aspects of the environment and the ability to mitigate those effects.

73 However, it is important that a rigorous process is undertaken by which opportunities for avoiding, remedying and mitigating adverse effects on the environment, particularly significant effects, are identified, tested and resolved.

74 In relation to the design of large-scale "greenfields" infrastructure such as roads, in my experience, the key tool for this decision-making process is Multi-Criteria Analysis (MCA). This tool has been applied to the assessment of effects to assist in the decision-making process that has occurred during the course of this Project and I discuss it later in my evidence (it is also discussed in the evidence of **Dr Bentley**). The MCA tool ensures that a properly integrated and rigorous approach is taken to making decisions on key attributes of the proposed Expressway in view of the scale of the Project and range of effects in issue.

Maintenance and enhancement of amenity values

75 Section 7(c) of the Act requires decision-makers to have particular regard to the maintenance and enhancement of amenity values, with amenity values defined under section 2 as meaning "*those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes*". Amenity values are often intrinsically related to the quality of the environment, another matter under section 7 to which decision-makers must have particular regard.

76 Amenity values will inevitably change with all forms of development – again, the RMA does not require the 'protection' of amenity values. Rather, the statutory requirement under s7(c) is to have particular regard to the maintenance and enhancement of amenity values amongst other considerations. Hence a factor to consider is whether or not a proposal would maintain, enhance or detract from amenity values.

77 In terms of this Project, the effects on the amenity values along the route involved consideration of the constituent elements such as the effects on noise levels, visual character, traffic, connectivity, and natural environment. This was informed by the nature of amenity values in issue (for example, those of the rural environs compared with the residential neighbourhoods).

78 In the Project design process, the first preference was to look for opportunities to avoid adverse effects on those values, as part of the MCA process. Once the key alignment and design decisions were made, and where avoidance of adverse effects on amenity values was not possible, the focus turned to mitigation. In this regard, mitigation sought to achieve an acceptable level of amenity, having regard to the context of the location, and to the level of amenity that people are reasonably entitled to under the land use

and development rules of the District Plan (i.e. the 'permitted baseline'). As far as possible, standards were use to benchmark levels of "acceptability" – in respect of amenity values, reference to noise standards were a basis for determining appropriate thresholds and levels.

RMA Principles – Best Practicable Option

79 For noise and the discharge of contaminants, the RMA recognises a concept of effects' management that it calls "best practicable option" (or *BPO*, as it is commonly known). BPO is is defined (in section 2, RMA) as meaning:

> *...in relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to—*
>
> *(a) the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and*
>
> *(b) the financial implications, and the effects on the environment, of that option when compared with other options; and*
>
> *(c) the current state of technical knowledge and the likelihood that the option can be successfully applied.*

80 As I have noted, a multi-disciplinary approach was used throughout the design process and in the development of mitigation measures for the Project. That approach included considering the BPO for both noise attenuation and the discharge of contaminants (refer to the evidence of **Ms Siiri Wilkening** and **Mr Graham Levy**). The approach applied in design development not only tested the cost and practical efficacy of measures but also their environmental implications from different perspectives.

81 In regard to the discharge permits sought by this Project, to satisfy the requirement under section 108(2)(e), the proposed conditions have incorporated the requirement for the consent holder to adopt the best practicable option to prevent or minimise any actual or likely adverse effect on the environment of the discharge and other discharges from the same site or source.[14]

82 In regard to noise mitigation, a multi-disciplinary workshopping process was undertaken to review the options for noise attenuation in different sections to determine the Best Practicable Option in each location, having regard to visual and landscape effects, urban design

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[14] Refer to proposed conditions G.29 and G.32

and ecological considerations, and road design aspects. This process is outlined in Technical Report 15 and Chapter 19 of the AEE, and is discussed in the evidence of **Ms Wilkening**. The Best Practicable Option approach is also intended to apply to any changes in noise attenuation measures following monitoring.[15]

RMA Principles – Adaptive Management

83 "Adaptive Management" is an approach whereby the conditions included in a resource consent or designation allow for adaptation in the management of effects according to changing circumstances. Adaptive management is an effective way to allow development to proceed where there is a degree of uncertainty about the exact nature and extent of adverse effects that may occur, while ensuring that the environmental bottom-line is not compromised. This approach contrasts that with conditions that set specified standards or methods to be followed.

84 The concept of adaptive management is now well established in New Zealand, and has been applied in a variety of contexts, including geothermal energy, hydro projects, mining, quarrying, land filling and roading. The requirements for the use of adaptive management were set out by the Environment Court in *Crest Energy Kaipara Ltd v Northland Regional Council.*[16] The adaptive management approach was adopted for managing the effects of construction in the Transmission Gully project. The concept is not unique to New Zealand, as it has been adopted internationally.

85 The concept of adaptive management is linked with the precautionary approach, which involves exercising prudent caution when faced with uncertainty about environmental risk. While the RMA is not a 'no-risk' regime, it is inherently precautionary, given its emphasis of avoiding, remedying or mitigating adverse effects on the environment. The definition of 'effect' under s2 RMA includes any potential effect of low probability which has a high potential impact: the adaptive management is an approach that addresses such effects.

86 In general terms, the key components of adaptive management normally involve:

86.1 The collection of baseline knowledge through research and monitoring of the existing environment.

86.2 The identification of evaluation criteria which act as "triggers" that are measured through monitoring, reporting and checking systems, which, if met, will initiate the adaptive

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[15] Refer to proposed Conditions DC.38 and DC.40

[16] Environment Court Interim decision A132/09 and final decision [2011] NZEnvC 26

management process before significant adverse effects eventuate. These mechanisms must be supported by enforceable resource consent conditions.

86.3 The taking of appropriate action when triggers are met: importantly, any adverse effects which exceed the trigger levels must be able to be reversed. There must be an ability to reorganise and adjust a development if the monitoring results warrant it.

87 A key principle underlying the use of adaptive management for this Project has been to ensure that there is a satisfactory level of confidence in the ability to respond effectively if baseline monitoring indicators are triggered.

88 The adaptive management approach has been applied to a number of different aspects of the Project, including construction noise and traffic management, operational noise attenuation, and the potential effects of construction on ecology.

Methods to Avoid, Remedy or Mitigate Adverse Effects on the Environment

89 A wide range of approaches has been undertaken in the development of this Project to avoid, remedy or mitigate adverse effects on the environment. These include:

89.1 *Project Shaping* – determining the route, alignment, configuration and design features of the proposed Expressway, which included –

(a) Seeking opportunities to avoid significant adverse effects through route selection, alignment options and design process;

(b) Integrating measures to avoid, remedy or mitigate adverse effects into the design of the Project;

(c) Using offset mitigation appropriately;

89.2 Using *management plans* in the construction phase of the Project;

89.3 Applying *conditions* to the designation and resource consents; and

89.4 Undertaking *mitigation measures outside the RMA*.

Project Shaping

Avoiding Adverse Effects

90 Seeking opportunities to avoid significant adverse effects on the environment was a critical driver of the design process for this Project, particularly during the first stages of the design process when the main opportunities for effects avoidance were available in making decisions on the route, alignment and expressway configuration. In general, opportunities for avoidance were progressively narrowed down as decisions were made in respect of the final alignment and design of the proposed Expressway. Through this approach, the Project has managed, for example, to avoid:

90.1 significant impacts on the town centres and surrounding residential areas (through route choice);

90.2 significant impacts on the highly valued ecological resources of the area (through alignment choice); and

90.3 significant severance effects through the retention of all east-west local link roads and to largely keep these roads at existing level by having the Expressway bridge over these roads.

91 In the Takamore Cultural Heritage Precinct, while it was not possible to fully avoid having some effects on the cultural values of the area, the choice of alignment avoids directly affecting the Takamore urupā and avoids traversing the important wetlands in the centre of the wāhi tapu area.

Integrating Mitigation

92 Another important driver in the planning of the proposed Expressway has been to integrate, as far as practicable, remedial and mitigation measures into the design of the Project itself (a process sometimes referred to as 'Project Shaping').

93 This has been a multi-disciplinary process throughout the course of Project design that has sought to, wherever practicable, optimise the level of mitigation or benefits available from various measures (for example, stormwater treatment through wetland processes can have ecological and visual benefits), and to also manage the effects of the measures themselves (such as the visual effects of noise attenuation walls).

Offset Mitigation

94 Offsetting is a form of mitigation. It is usually proffered by a proponent in circumstances when the effect cannot be practicably mitigated within the immediate vicinity of where it occurs.

Offsetting considers mitigation in terms of the broader resource that is affected, identifying opportunities elsewhere for mitigation to offset the adverse effects.

95 For this Project, a driving principle has been to mitigate the effects of the Project within the footprint of the designation itself – i.e. within immediate vicinity of the effect – thereby minimising the need to propose offset mitigation. The only form of offset mitigation that may be proposed is the restoration of the former oxidation pond in the Pharazyn Reserve north of Waikanae Beach.

96 In relation to the effects on waterbodies, the explanation to Policy 4.2.33A inserted into the Wellington Regional Freshwater Plan by the Transmission Gully Board of Inquiry provides a useful summary of the key elements to offsetting:

> *"Offsetting" means the provision of a positive effect in one location to offset adverse effects of the same or similar type caused by the Transmission Gully Project at another location with the result that the overall adverse effects on the values of the waterbodies are remedied or mitigated.*
>
> *Where offsetting is to be applied, there should be a clear connection with the effect and the offsetting measure. The offsetting measure should preferably be applied as close as possible to the site incurring the effects. Hence, there should be a focus on offsetting occurring within the affected catchments along the Transmission Gully route and to specifically address the effects at issue.*
>
> *Offsetting should, as far as can be achieved maintain and enhance the particular natural values affected by the Project when assessed overall.*
>
> *The adequacy of a proposed offsetting measure should be transparent in that it is assessed against a recognised methodology.*
>
> *In this policy "to the extent practicable" requires consideration of the nature of the activity, the sensitivity of the receiving environment to adverse effects, the financial implications and adverse effects of the measure considered compared with other alternative measures, the current state of technical knowledge.*

97 Offsetting is an emerging science, particularly in terms of ecological (biodiversity) effects, and there is debate, first, as to how to define offsetting (as opposed to mitigation generally) and, second, how to calculate the appropriate level of offset mitigation.

Management Plans

98 An important approach in addressing the actual or potential adverse effects on the environment is to manage the effects arising from the construction of the Project.

99 This is an important aspect to any large scale Project where some fine tuning is always required prior to and often during the construction. Management Plans enable a degree of flexibility, within the requirement to construct and operate the proposed Expressway in general accordance with the plans and information submitted with the application.

100 The primary method used to provide for this process is the environmental management plan. This is a plan or programme that seeks to achieve a required end state and describes how activities that have or could have an adverse impact on the environment, will be mitigated, controlled, and monitored.

101 The environmental management plan addresses the environmental impacts during the final design, construction and operational phases of a project. In order to achieve this, a number of environmental specifications/ recommendations are made in the Management Plan, that are aimed at ensuring that the applicant (and its agents and contractors) maintain adequate control over the Project in order to:

101.1 Minimise the extent of impact during construction;

101.2 Ensure appropriate restoration of areas affected by construction; and

101.3 Prevent long term environmental degradation.

102 The contractor must be made aware of the environmental obligations that are stipulated in the management plan, so that they are familiar with, and understand, the environmental outcomes that must be achieved.

103 Management plans are a common method for managing the finer detail of larger projects, through the developed design and construction process. I note that GWRC supports their use:

> *The use of management plans is consistent with GWRC's general approach to large scale applications and earthworks sites. Typically draft plans are provided as part of the application documents and these are finalised by way of conditions of consent, subject to certification by GWRC.*[17]

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[17] Paragraph 226, GWRC Key Issues report, 11 June 2012

104 The term 'certification' is deliberately used in the conditions as the focus for certification is for the council to confirm that the proposed management plans are in accordance with legal requirements of conditions (in this case from the Board of Inquiry). In other words, a proposed Management Plan fulfils the purpose specified in the condition. This contrasts with "approval" which implies the council has a broader and more open-ended discretion.

105 Management plans operate as evolving documents, to respond to changes in details and information (e.g. community liaison engagement) as the final design is finalised and construction and monitoring proceeds. Typically, at the consenting stage, the contractor who will build the Project has not been engaged. Hence, typically, the management plan process must allow flexibility for the involvement of and input from the contractor at a later stage. A point of difference with this Project, however, is that the construction contractor is part of the Alliance and has been involved with the development of management plans to date. As a result the Management Plans for this Project have a higher degree of specificity than would normally be the case.

106 For a large-scale project, a comprehensive suite of management plans is usually developed, under the 'umbrella' of an overarching environmental management plan. As described by other expert witnesses, for this Project the Construction Environmental Management Plan (CEMP) is proposed to provide the overarching framework to direct the construction of the proposed Expressway and its final form and functioning. I shall describe the framework of management plans shortly.

107 In regard to the s149G Key Issues report from KCDC, the following concern was expressed:

> *There is a reliance on Management Plans as a means of achieving the mitigation solutions.*
>
> *There is a risk that the requiring authority once they have received approval, are reluctant to deliver on mitigation measures. This can impose a significant cost to* [sic] *a local authority and the community in reaching agreement and consequently its implementation. This is, therefore, a key issue for KCDC.*
>
> *To ensure such a situation does not eventuate, any management plan or similar document, standard, process or agreement should be agreed and finalised before the final Board of Inquiry decision is made.*[18]

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[18] Page 11, Key Issues Report, Kāpiti Coast District Council, 8 June 2012

108 This statement appears to indicate a lack of understanding about the Management Plan process. Management Plans are a mechanism enabling environmental outcomes to be achieved while providing a necessary degree of flexibility around the finer detail in the management of effects as construction design and construction proceeds. It would be inappropriate to require a finalised Management Plan at the time of the Board of Inquiry decision being made, prior to the level of detailed construction design that is needed to finalise and construct a Project. Management plans are not intended to avoid implementing mitigation, but rather seek to ensure the final form of mitigation is optimal and fine tuned to ensure an appropriate and effective response. The local authority is involved in the finalisation of the Management Plan via certification processes, and is responsible for its enforcement, as with any other condition of resource consent. The costs of that process are recoverable from the requiring authority/consent holder.

109 As I note later (in reference to Outline Plans), any substantive change to the Project (and its consented activities) would require an alteration to the designation and/or consents, which would be processed by the relevant Council. Again, the costs of that process are recoverable from the requiring authority.

110 I shall outline the Management Plan framework that is proposed to apply to this Project in more detail shortly.

Conditions of Consents and Designation

111 The RMA allows for conditions to be included in designations and resource resource consents (in the latter case under section 108).

112 A suite of conditions is proposed to be applied to the construction and operation of the proposed Expressway. These conditions are based on recent precedent and evolving practice, drawing most immediately on those conditions applied to the Transmission Gully Project (as appropriate and relevant to this Project). Many of the conditions relate to the proposed management plans, setting out their proposed purpose, their certification and implementation. In addition, some of the conditions would impose specific standards on Project construction, either in respect of monitoring (for example, ground settlement monitoring)[19] or performance management (in particular construction noise).[20]

113 Given that the Project requires both a designation and numerous resource consents, ensuring the effective integration of conditions has been a key consideration: (i.e. practicably all conditions must relate to the construction and operation of the one Project, and

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[19] Refer to proposed resource consent conditions E.12 to E.23

[20] Refer to proposed designation conditions

seek) as well as to avoid unnecessary overlap or duplication in function (the designation is administered by KCDC whereas the consents are administered by GWRC). Consequently, I have developed the suite of conditions to be applied as an integrated whole, even though some will be administered by GWRC and others by KCDC. In particular, for Management Plan conditions, the process for Council certification of the Plan as complying with the relevant designation or consent conditions is important. I have designed the applicable conditions so that there is only one certifying authority for each Management Plan first to reflect their statutory mandates and roles, and second to avoid risk of extended delays if a difference in opinion between councils occurred around certification.

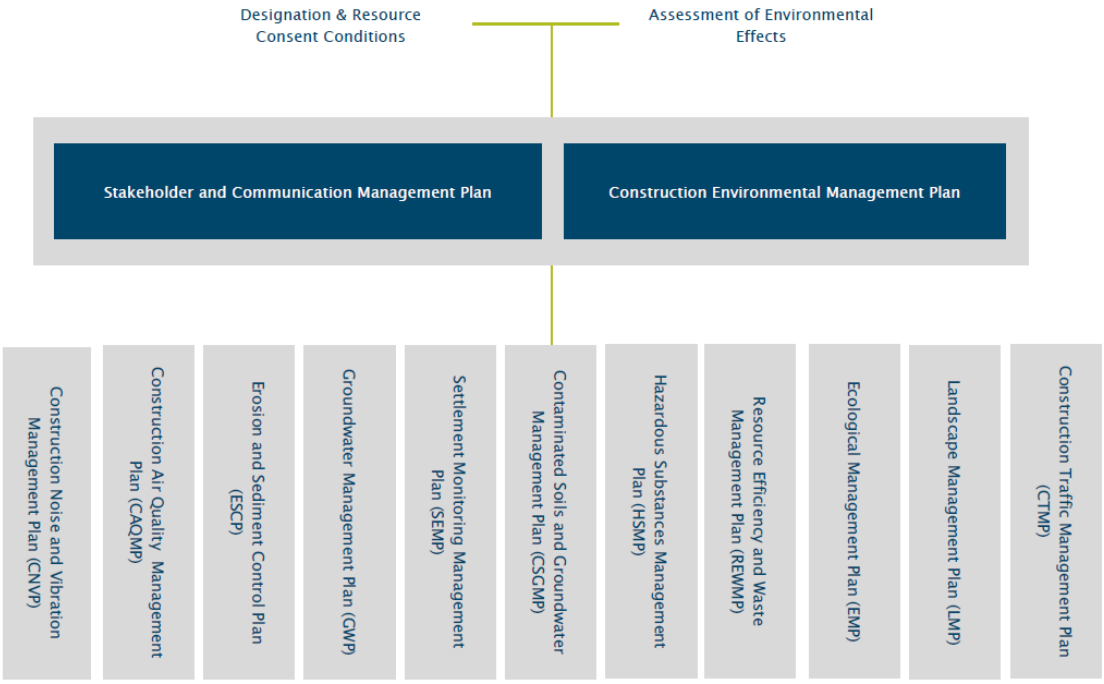
114 I shall outline the process used in developing the proposed conditions shortly.

Management Plan Framework and Process

115 As part of the engineering and environmental investigations and assessments undertaken for the Project, a number of draft management plans were developed and are proposed to be applied to the construction of the proposed Expressway. The management plans will be implemented (and enforced) through conditions of the designation and resource consents. The suite of management plans is illustrated in Figure 31.2 on page 620 of the AEE.

116 In my experience, management plans are an effective and widely employed method to manage environmental effects, and are typically used for major projects: for example, NZTA's Transmission Gully and Waterview projects, and Transpower's Whakamaru to Pakuranga 400kv and Wairakei to Whakamaru 220kV new transmission line projects. These employ a suite of management plans to address the effects of construction and effects mitigation.

117 The diagram below illustrates the overall hierarchy of management plans that are proposed to manage the effects of the construction of the proposed Expressway.



118 The management plans are derived from the recommendations of the experts who carried out the various assessments that were undertaken for the AEE, while the proposed conditions of designation and resource consent prescribe the requirements and processes for the approval and implementation of management plans.

119 Two tiers of management plan are proposed for the Project as follows:

119.1 An overall Construction Environmental Management Plan (CEMP), working in parallel with a Stakeholder and Communication Management Plan (SCMP) (which is outlined in the evidence of **Ms Jane Black**); and

119.2 A series of topic-specific management plans as appendices to the CEMP (for example, plans which address, noise, air quality, construction traffic, groundwater, and erosion and sediment control).

120 Under the proposed conditions (which I discuss shortly), the management plans are required to confirm the procedures, requirements and standards necessary for managing the effects from the construction of the proposed Expressway.

121 The conditions also require that draft management plans be submitted to the relevant local authority for certification that the plans appropriately and effectively address the purpose of the management plan – i.e. KCDC would certify management plans that

primarily relate to the designation and land use consent (contaminated land) and GWRC would certify management plans that primarily relate to the regional consents. Where a council has an interest in the outcome of a management plan for which it is not the certifying authority, it is proposed to provide that local authority with the ability to provide input into the draft management plan through a consultation step. This would avoid the need for a duplicative certification process.

122 Not all management plans would require certification but are for information to demonstrate that all matters are being appropriately addressed – in particular, the Network Utilities Management Plan (NUMP) would require the NZTA to undertake consultation with the relevant utilities affected by the Project and to secure agreement on how to manage the effects of construction on network utilities. In my opinion, it would not be relevant for a Council to certify this management plan, though it should be submitted to the District Council to demonstrate that the condition has been complied with.

123 In the case of the current Project, all draft management plans are already before the Board of Inquiry to review, to provide a good level of certainty as to the manner in which the effects of the Project are to be managed. In my experience, it is relatively uncommon for all draft management plans to lodged with a Project application. Indeed, it is quite common for no draft management plans to be submitted as part of resource consent application information, as such plans are typically developed at a later stage when more detailed construction design has been undertaken following later appointment of the constructor.

124 In the case of the current Project, all of the draft management plans are already before the Board of Inquiry to review, providing a significant level of certainty as to the manner in which the effects of the Project are to be managed. However, as I outlined above, this Project has had the major benefit of having the Contractor on board during the development of proposed Expressway, and including the draft management plans.

125 It is important to note that, in order to be effective, management plans have to retain a degree of flexibility to come up with the optimal response to fine detail and circumstances (for example, specifics in ground conditions). The proposed conditions provide for staged submission of management plans, and ongoing review, along with performance standards rather than prescriptive requirements, and I consider that all these demonstrate an appropriate level of flexibility. This flexibility for construction purposes is not available as a mechanism to be used to alter the effects on the environment or the conditions per se. As I have stated above, the conditions still require, in terms of environmental performance, and effects thresholds achieved.

Construction Environmental Management Plan

126 A key element of the mitigation proposed for construction are those measures to manage potential adverse effects provided for in the Construction Environmental Management Plan (CEMP). The CEMP provides the overarching framework to inform how the Project is to be constructed. It includes the principles and general approach to managing the associated environmental effects. It also provides detail on the methods to be applied to implement good environmental management, including monitoring and review requirements, auditing procedures and corrective actions.

127 The CEMP covers all anticipated construction elements and presents a framework of principles, environmental policies, objectives and performance standards. The CEMP includes a number of specific management plans that provide appropriate mitigation for impacts during construction. These include noise and vibration, construction traffic, erosion and sediment control, ecological and landscape management.

128 The CEMP specifies the structure and systems for environmental management and monitoring to be implemented during the Project's construction phase. Implementation of the CEMP will ensure the obligations of the conditions are carried out. Compliance with the CEMP will also ensure that appropriate environmental management practices are followed in the construction of the proposed Expressway.

129 The CEMP and its sub-plans are consistent with, and are to be a primary method for, implementing the findings of the Project's AEE. In my opinion, this suite of management plans and related conditions will act to ensure that actual and potential environmental effects will be appropriately managed during construction of the Project.

Proposed Designation and Consent Conditions

Development of proposed conditions

130 A comprehensive suite of draft designation and resource consent conditions is set out in Sections 32.2 and 33.2 of the AEE on pages 664 and 680 respectively.

131 The draft conditions reflect the outcome of the assessment of environmental effects and the relevant consent requirements. They were developed to assist potential submitters to understand how the actual and potential adverse effects of the Project are proposed to be managed and mitigated.

132 I was their principal author and/or collator. Their design and content was informed by:

132.1 The technical reports and their recommendations for mitigation (and my associated discussions with the relevant technical authors);

132.2 Similar NZTA designation and consent conditions instituted for projects elsewhere, particularly those where there were similarities in environmental circumstances; and

132.3 Discussions with relevant staff from the relevant regulatory authorities, namely KCDC (in relation to the proposed designation conditions), and the GWRC (in relation to regional resource consent conditions). GWRC staff assisted in supplying their "standard" conditions and these were considered and proposed where appropriate.

133 In developing the conditions, I was mindful of the important relationship between the elements of relationships within the AEE documentation. This was particularly because these documents essentially define the parameters of the Project and its activities, associated effects and recommended mitigation. I was also careful to avoid overlap or duplication of matters subject to agreements with relevant stakeholders and/or managed via other statutory processes (for instance, the Historic Places Act 1993).

Structure of Proposed Conditions

134 To assist the Board I outline the proposed structure and approach of the proposed conditions:

134.1 The proposed conditions are structured according to different groups of conditions – the conditions are identified through the use of prefixes to indicate the type of condition (e.g. G "general", E "earthworks" and so on).

134.2 In structuring the *designation conditions* (with the prefix DC), there are a number of general conditions (DC.1 to DC.16) that include the requirement for the proposed Expressway to be built in general accordance with the plan and information submitted with the application. The remaining conditions address the management of different aspects involved construction and operation of the proposed Expressway – construction traffic, construction dust, construction noise and vibration, operational noise and vibration, the storage and use of hazardous substances, network utilities management, landscape management, archaeology and cultural heritage, and lighting.

134.3 In structuring the *resource consent conditions*, I set out in the first instance a series of "General" (G) conditions applicable to all the permits. These are followed by a set of specific conditions relevant to the specific types or groups of permits

sought: earthworks on land and sediment control (E); works within watercourses (WS); borehole and groundwater takes (BC and GT). In respect of the resource consents required for wetland reclamation and vegetation clearance, it is proposed that these activities would be most effectively managed under the relevant General conditions (in particular, the ecological management and monitoring conditions G34 to G.40).

134.4 The resource consent conditions G.32 and G.33 relate to the land use consent required under the *National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health* to address the disturbance and disposal of contaminated soil.[21] This consent is to be administered by KCDC, as opposed to the remainder of the resource consents which are to be administered by the GWRC.

Conditions relating to management plans

134.5 As previously outlined (paragraph 120), the conditions are the principal method by which the proposed suite of management plans are to be implemented and enforced. Each management plan is required to be certified by the relevant local authority, as follows:

Greater Wellington Regional Council

- Construction Environmental Management Plan (providing the overarching management framework): G.20 to G.26
- Erosion and Sediment Control Management Plan: G27 to G.28, and E.2
- Groundwater (Level) Management Plan: G.29 to G.30
- Settlement Management Plan: G.31
- Ecological Management Plan: G.34 to G.37
- Site specific Construction Erosion and Sediment Control Plans: E.2 to E.7
- Chemical Treatment Plan: E.11

Kāpiti Coast District Council

- Construction Traffic Management Plans (including Site Specific Traffic Management Plans): DC.17 to DC.25
- Construction Air Quality Management Plan: DC.26 to DC.29

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[21] Relating to matter NSP 12/01.002: land use consent for disturbing soil containing contaminants where there is a risk to human health and changing the use of land containing contaminants where there is a risk to human health pursuant to Regulation 10 of the Resource Management (*National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health*) Regulations 2011 (SR 2011/361)

- Construction Vibration and Noise Management Plan (including, if required, Site Specific Construction Noise Management Plans): DC.30 to DC.33
- Hazardous Substances Management Plan: DC.51
- Network Utility Management Plan: DC.52 to DC.53
- Landscape Management Plan: DC.54 to DC.59
- Contaminated Soils and Groundwater Management Plan: G.32

134.6 The management plans are required to be certified that the management methods they include (including monitoring) are deemed as satisfactory for achieving the stated purpose of the management plan.

Conditions requiring other types of effects' management

135 As I have noted, in addition to the use of management plans, the conditions also propose the use of adaptive management, BPO, environmental standards and monitoring in effects' management, as follows:

135.1 The Ecological Management Plan is proposed to apply the adaptive management approach to responding to any adverse ecological effects identified by monitoring. Under condition G.39, monitoring will occur during construction, and then for period of 3 years post construction (with specific recommended monitoring periods for various matters). Further monitoring may occur if required under the adaptive management of condition G.40. The adaptive management approach has also been applied to a number of different aspects of the Project, including construction noise and traffic management, and operational noise attenuation;

135.2 Proposed conditions G.29 and G.32 require the application of the best practicable option approach to groundwater management. In addition, Conditions DC.38 to 40 require the application of BPO principles to the development of any revisions of the noise mitigation measures;[22]

135.3 Some conditions propose the application of environmental standards for managing the effects of construction (for example, the application of maximum noise levels through the Construction Vibration and Noise Management Plan, DC.30). These standards are drawn from accepted New Zealand or international standards; and

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[22] Consistent with the duty to avoid unreasonable noise under s16 RMA

135.4 The conditions also outline a range of monitoring requirements, either through the relevant Management Plan (for example, the Landscape Management Plan DC.57 and the Construction Vibration and Noise Management Plan, DC.30), or directly through conditions (for example, the monitoring of potential ground settlement E.12 to E.23).

Changes to Proposed Conditions

136 In response to submissions received, as well as an outcome of further stakeholder engagement and investigations that have occurred since the applications were lodged with the EPA, a range of changes to the conditions have been recommended by a number of expert witnesses. The reasoning for these changes, which include minor corrections and amendments and new conditions, are outlined the respective expert evidence. I have reviewed and accept the recommended changes as appropriate.[23]

137 In his evidence, **Mr Bowman** recommends a condition that provides for the relocation of the Stringer Wind Rain House at 224 Main Road (SH1), Raumati, to an appropriate location on the Kāpiti Coast in accordance with a conservation report. **Mr Bowman** recommends the conservation report should include selection criteria for an appropriate location and an assessment of how the moving and re-establishment of the structure is to be achieved to minimise the potential for adverse effects on it.

DC.62A: Prior to the commencement of construction in the Raumati South section of the project, the Requiring Authority shall relocate the 'Wind Rain House' at 224 Main Road (State Highway 1), Raumati, to a suitable location, in accordance with a conservation report that shall be prepared by a suitably qualified and experienced conservation architect. The report shall include the selection criteria for an appropriate location and an assessment of how the moving and re-establishment of the structure is to be achieved to minimise the potential for adverse effects on it.

138 In regard to proposed Resource Consent Condition G.21, some unnecessary words need to be deleted so that the introductory paragraph should read:

The certification~~)~~ shall confirm that the CEMP (and its appendices) ~~shall confirm that the CEMP~~ gives effect to the relevant conditions and that includes details of: ....

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[23] I am preparing a marked up version of the changes to the proposed conditions that will be available next week.

Mitigation and Management Methods outside the RMA

139 When considering how the effects of the Project will be managed, it is also relevant to consider the methods that are proposed to be applied but that are not appropriate to be imposed through conditions of the designation or resource consents. In terms of both the NoR and resource consent applications, the Board can consider the use of non-RMA methods as "other relevant matters" under sections 171(1)(d) (for Notices of Requirement) and s104(1)(c) for resource consents.

140 I understand that these methods can encompass, for example, side agreements and approvals under other statutes as may be required in order to construct or operate a project. In the present context, that includes:

140.1 *Project Agreements* with organisations such as the Kāpiti Coast District Council and Greater Wellington Regional Council on such matters as funding agreements and future actions (as **Mr Quinn** explains);

140.2 *Memoranda of Understanding* and other agreements with iwi (refer to the evidence of **Mr Amos Kamo**); and

140.3 The requirement under the Historic Places Act 1993 that *archaeological authorities* be secured from the New Zealand Historic Places Trust before any construction involving disturbance or destruction of archaeological sites can (refer to the evidence of **Ms Mary O'Keeffe**).

ASSESSMENT OF ENVIRONMENTAL EFFECTS

Introduction

141 For the NoR and resource consents application, there are similar requirements to consider the Project's effects on the environment "subject to Part 2".[24]

Investigation process for the Assessment of Environmental Effects

142 As discussed in Chapters 2 and 11 of the AEE, the Project has been the subject of a substantial and rigorous investigation process. As Planning Manager for the Project, I have provided advice and

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[24] For the NoR, s171 RMA refers to considering the effects on the environment of allowing the requirement. For the resource consents applications, s104 refers to having regard to any actual and potential effects on the environment of allowing the activity. I do not see these as materially different and, in practice, an AEE is used to address both requirements.

direction concerning this process, particularly in relation to the environmental and planning assessments undertaken.

143 Chapter 9 of the AEE provides an overview of the investigation process undertaken since 2009, the point at which NZTA undertook an initial assessment of the alternative route options for constructing an Expressway within the Project area. This process involved a comprehensive multi-disciplinary investigation and assessment of the route, alignment and design options that led to the final alignment and design. The findings from these investigations informed the decision-making process regarding the final scheme. Chapter 10 outlines the consultation and engagement process undertaken to inform the decision-making process. Chapter 11 outlines the environmental assessment work that was undertaken in the identification of effects on the environment.

144 Drawing from the investigations that have been undertaken, I make the following key observations regarding the investigation process:

144.1 Environmental issues (including social, cultural and archaeological) have been identified and scoped from the outset of the investigation process;

144.2 Route, alignment and design option development included collaborative multi-disciplinary assessment processes; involving engineering, planning, environmental, social, cultural and archaeological expert input – these assessments were informed by the feedback received during engagement with stakeholders and consultation with the wider Kāpiti Coast community;

144.3 The potential environmental impacts of construction and design have been considered in the development of alignment and construction options; and

144.4 Following on from earlier investigations undertaken by NZTA over 2008 and 2009, comprehensive Project investigations have been undertaken by the Alliance since 2010, which have included a rigorous assessment of the detailed design options and confirmation of the designation footprint required for the construction, maintenance and operation of the Project. This work was informed by the technical environmental assessments prepared for the Project (refer to Volume 3 of the AEE), and the responses collated from the extensive consultation undertaken with iwi, stakeholders and the wider community (described in Chapter 10 of the AEE and Technical Report 3).

145 In my opinion, the scope of the investigation process undertaken to consider the effects on the environment, assess the alternatives and

assess the provisions in relevant planning documents has been appropriate and sufficient for NZTA to be satisfied that the Project is reasonably necessary to meet the stated project objectives of the requiring authority. It has also been sufficient, in my opinion, to adequately identify and address all actual or potential effects on the environment – adverse and positive – to allow an appropriate level of understanding of the Project for public submission and statutory assessment purposes.

Summary of actual and potential effects on the environment

146 A summary of the actual and potential effects of the construction and operation of the Project on the environment is contained in Table 31.2 (on page 625) of the AEE. I am of the opinion that this table provides a clear and simple overview of the key effects.

147 In brief, these effects may be broadly categorised as follows:

147.1 Traffic and transport;

147.2 Archaeological and built heritage;

147.3 Tangata whenua and cultural heritage;

147.4 Network utilities;

147.5 Urban form and function;

147.6 Visual and landscape;

147.7 Lighting;

147.8 Noise and vibration;

147.9 Air quality;

147.10 Stormwater and hydrology;

147.11 Groundwater;

147.12 Land and groundwater contamination;

147.13 Water quality;

147.14 Ecology (terrestrial, freshwater and marine);

147.15 Ground Settlement;

147.16 Public Health;

147.17 Economic; and

147.18 Social.

Relevance to Part 2 assessment

148 Many of these matters have a direct relevance to the consideration of the Project under Part 2 of the Act. In particular:

148.1 Traffic and transportation, economic, social, and urban form and function are relevant to how the Project enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety (section 5);

148.2 Archaeological and built heritage are relevant to the potential effects on historic heritage (section 6(f));

148.3 Tangata whenua, cultural heritage and ecology are relevant to the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga (section 6(e)), historic heritage (section 6(f)), kaitiakitanga (section 7(a)), and the principles of the Treaty of Waitangi (section 8);

148.4 Ecology is relevant to the potential effects on areas of significant indigenous vegetation and significant habitats of indigenous fauna (section 6(c)), the intrinsic values of ecosystems (section 7(d)), the maintenance and enhancement of the quality of the environment (section 7(f)), any finite characteristics of natural resources (section 7g)) and the habitat of trout and salmon (section 7(h)); and

148.5 Landscape and visual is relevant to the natural character of wetlands and rivers and their margins (section 6(a)), and to outstanding natural features and landscapes (section 6(b)), as well as to amenity values and the quality of the environment (section 7(c) and (f)).

149 There are also strong interrelationships between many of these areas of effects. For example, the effects on stormwater, hydrology and groundwater have interrelationship with freshwater and wetland ecology. Amenity values can be affected by such effects as increased noise levels, visual changes, and lighting.

150 I shall highlight the key points from the assessment of these effects later in my evidence, highlighting in particular the findings in relation to Part 2 matters.

Actual and potential positive effects

151 In considering the Project under sections 171 and 104, consideration of effects is "subject to Part 2" of the Act. In applying an overall judgement approach to the competing considerations to be taken into account in Part 2 of the RMA it is important that regard is had to the full suite of effects associated with the Project, inclusive of its positive effects.

152 Based on the evidence that has been prepared by other witnesses and my own overall analysis, I consider that there are significant positive effects that counter balance the actual and potential adverse effects of the Project. Many of the positive effects form the rationale for the Project: i.e. in enabling the wellbeing, health and safety of people and communities by rectifying known safety and efficiency defects in the existing strategic transport network. In particular:

152.1 The significant positive transport effects to be derived at a local, regional and national scale, including:

(a) Improved route security and resilience for the Region's State highway network and for district level emergencies;

(b) Improved safety and reduced road accident risk;

(c) Significant travel time savings and reduced trip time variability;

(d) More efficient freight movement and associated economic benefits;

(e) Improved connections to regional freight hubs and passenger terminals, including those at Paraparaumu, Wellington Port, Wellington International Airport and other distribution centres;

(f) Improved local accessibility through the provision of interchange connections to a second north-south route (i.e. the planned Expressway in addition to the existing SH1); and

(g) The Project will deliver enhanced local, regional and national economic growth and productivity, including increased local economic spend during construction.

152.2 These effects are highlighted and discussed by **Mr James**, **Mr Andrew Murray** and **Mr Copeland** and are covered in further detail in Chapters 12 and 29 and Technical Report 34 of the AEE.

152.3 In addition, a number of other positive outcomes for the ecology on the Kāpiti Coast, including:

(a) A net 2:1 revegetation gain to offset vegetation loss from the Project;

(b) Restoration or re-establishment of approximately 5000 metres of stream to mitigate the effect on approximately 2900 metres of stream that will be modified by the Project;

(c) Restoration of approximately 5.4 hectares of wetland to offset the effects on 1.8 hectares of wetland affected by the Project; and

(d) Enhancement of the overall ecological value in the Project area through the provision of 13 hectares of mass planted flood storage area.

These effects are highlighted and discussed in the evidence of **Mr Stephen Fuller, Dr Keesing** and **Mr Park** and are covered in further detail in Chapters 21 and 22 of the AEE and Technical Reports 26 to 30.

152.4 Improved air quality as a result of improved traffic flow, as outlined in the evidence of **Ms Camilla Borger**, and covered in further detail in Chapter 20 of the AEE.

152.5 Wider positive social effects including increased employment opportunities, reduced traffic on the existing State highway (which would become a local road), enhanced choices for local travel movement through a new road and shared walkway/cycleway links, and improved local ease-of-access and new opportunities for community cohesion. These effects are highlighted and discussed in the evidence of **Mr Andrew Murray** and **Ms Meade Rose** and are covered in further detail in Chapters 12 and 30 of the AEE and Technical Reports 20 and 32.

Actual and potential adverse effects

153 Based on the evidence that has been prepared by other witnesses and my own overall analysis, I am of the opinion that the actual and potential adverse effects associated with constructing and operating the Project can be appropriately avoided, remedied or mitigated. Key conclusions I wish to highlight in this regard are discussed below.

Traffic and Transport effects

154 Construction activities have the potential to create adverse effects through high levels of construction traffic movements and through the disruption of traffic on local roads and other connections when the Expressway overbridges are being built.

155 Although there will be localised short-term effects arising from heavy vehicle construction traffic, the use of local roads by these vehicles will generally be minimised and managed through the Construction Traffic Management Plan in Appendix F of Volume 4 of the AEE. This matter is addressed in the evidence of **Mr Stephen Hewett** and is also covered in further detail in Chapter 12 of the AEE and Technical Report 33.

Effects on Archaeology and Built Heritage

156 The protection of historic heritage from inappropriate subdivision, use, and development is a matter of national importance under s6(f) RMA. Under section 2, "historic heritage" includes archaeological sites and historic sites, structures, places, and areas.

157 Significant efforts were made to avoid known and recorded archaeological sites during the process of identifying and designing the proposed Expressway alignment in the vicinity of the protected corridor, however absolute avoidance is not practicable given the requirements of the Project and the archaeologically dense profile of the Kāpiti Coast.[25] To avoid these effects would have entailed creating different but equally, if not more significant, adverse effects along the existing SH1 corridor or alternative alignments.

158 In the Takamore Cultural Heritage Precinct, a key concern of the alignment and design process was to avoid or minimise the effects on archaeological sites. Based on known information and supplemented by investigations undertaken for this Project, the chosen alignment through this area minimised the potential for significant archaeological sites to be disturbed or destroyed.

159 An integrated and comprehensive set of measures is proposed in order to mitigate the effects of the Project on both known and as yet undiscovered archaeological sites. These include undertaking detailed, systematic archaeological investigations of areas of high archaeological potential, a geophysical survey of the Takamore urupā (subject to the consent of the Takamore Trustees) and the detailed recording of any archaeological finds. As discussed by **Ms O'Keeffe**, this integrated set of measures will be achieved through both RMA and Historic Places Act 1993 mechanisms.

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[25] Known and recorded sites and the archaeological profile of the Kāpiti Coast are discussed in the evidence of **Ms O'Keeffe**

160 The mitigation proposed as part of the RMA process are discussed in the evidence of **Ms O'Keeffe**, and are outlined in further detail in Chapter 13 of the AEE and Technical Report 9. Based on her evidence, and the proposed means to investigate, record and manage archaeological discoveries, I am satisfied that the Project will appropriate mitigate the potential effects on archaeology.

161 In terms of built heritage, I note that the proposed Expressway will not directly affect any places entered on either the District Plan Heritage Register or the New Zealand Historic Places Trust Register of Historic Buildings, Historic Areas, Wāhi Tapu and Wāhi Tapu Areas. Further, any indirect effect of the Project on built heritage along the route has have been assessed as being negligible to minor. This is discussed in the evidence of **Mr Ian Bowman**, and is outlined in further detail in Chapter 13 of the AEE and Technical Report 10.

Effects on Tangata Whenua and Cultural Heritage

162 As I outlined earlier (paragraphs 52 and 53), and as described in the two Cultural Impact Assessments produced for the project, Māori have had a long history and traditional relationship with the Kāpiti Coast, and there are many sites and locations of particular historical, spiritual and cultural importance to iwi.[26] In addition, iwi maintain a strong connection with and concern over the much diminished and degraded natural resources of the Kāpiti Coast, particularly its remaining wetlands and waterbodies.

163 The route selection and Project design process was informed and influenced by strong working relationships that were established at an early stage of the Alliance (from mid-2010), particularly with Te Rūnanga o Āti Awa ki Whakarongotai Inc., in whose rohe the Project is located, and with the Takamore Trust (recognised kaitiaki of the Takamore Urupā and surrounding area). These relationships were further formalised by memoranda of understanding entered into by the NZTA in early 2012.

164 The potential effects of the proposed Expressway on the cultural values of the Kāpiti Coast were a key concern during the investigations, alignment selection and design process. In particular, the alignment of the Expressway through the Takamore Cultural Heritage Precinct was rigorously investigated and analysed, informed by consultation with iwi and the local community. To this end, the selected alignment and design[27] seeks to minimise the

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[26] The Cultural Impact Assessments (*CIA*) were prepared by Te Āti Awa ki Whakarongotai and the Takamore Trust. The CIAs are referenced as Technical Reports 11 and 12 and are discussed in the evidence of **Mr Kamo**

[27] In particular, the width of the median is reduced from 6m to 4m through this area to reduce the overall footprint of the road

effects on this area's cultural values, while minimising the impacts on properties and on the other values of the area. Compared with previously approved designations, the area of wāhi tapu affected is substantially reduced and now only traverses an area under which the Kapuni High pressure gas pipeline is located, and across which an access road is formed. Additionally, the NZTA has supported Takamore Trust's application to the NZHPT to extend the registered wāhi tapu over a wider portion of the Cultural Heritage Precinct to better reflect the values in the wider vicinity.

165 I am satisfied that the final alignment is the most appropriate, taking into account the constraints and various considerations. I acknowledge that the route of the proposed Expressway through this area could not fully avoid adverse effects on the cultural heritage and values of Takamore Cultural Heritage Precinct.

166 Where the adverse effects of the Project on key areas of interest to iwi were not practicably able to be entirely avoided (such as in the Takamore wāhi tapu area and the broader Takamore Cultural Heritage Precinct; and effects on some freshwater and terrestrial habitats), a range of conditions and other measures is proposed to ensure that those effects are appropriately mitigated and/or managed. These measures have been developed in consultation with iwi and are acknowledged in the Cultural Impact Assessments undertaken by Te Rūnanga o Āti Awa ki Whakarongotai Inc. and the Takamore Trust for the Project (Technical Reports 11 and 12). These effects and associated mitigation measures are discussed in the evidence of **Mr Kamo**, and are outlined in further detail in Chapter 14 of the AEE.

167 The full extent of the proposed mitigation measures is subject to ongoing discussion with both the Takamore Trust and Te Ati Awa ki Whakarongotai, which has been acknowledged and praised in their submissions.[28] There is a common desire of the parties to formalise their agreement to these measures. At this stage in that process, I am free to say that the NZTA is proposing to undertake a range of measures to mitigate the effects on cultural values, and to recognise and provide for the relationship of iwi (including their role as kaitiaki) and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga. These measures include commitments to iwi:

167.1 To protect cultural sites of significance by monitoring for earthworks and excavations required for archaeological/ geotechnical investigation, excavation and construction activities;

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[28] Refer submissions [703] and [708]

167.2 In consultation with local iwi, to draft and comply with the one or more protocol documents which include the following:

- Koiwi discovery protocols
- Artefact discovery protocols
- Tikanga protocols
- A protocol for archaeological site identification training for contractors
- A protocol for cultural training for contractors;

167.3 To engage with Te Āti Awa ki Whakarongotai Expressway Committee early and during the construction period on issues concerning monitoring, construction and any other activities deemed to have an effect on cultural values; and

167.4 To manage stormwater discharges to protect water quality and dependent indigenous vegetation and habitats.

168 In addition, the NZTA has entered into agreement to continue its engagement with Te Āti Awa ki Whakarongotai and Takamore Trust on a positive and constructive basis throughout the remainder of the Project.

169 Taking these measures into account, I am satisfied that sufficient endeavour has been given to avoid or minimise the effects of the alignment of the proposed Expressway on cultural values and the relationship of iwi with their ancestral lands, water, sites, wāhi tapu, and other taonga. In my opinion, the effects of the Project on cultural values will be appropriately mitigated through the ranges of measures proposed, and through ongoing engagement with iwi.

Effects on network utilities

170 A Project of the scale and length of the proposed Expressway will inevitably require work to relocated services or other works to protect and maintain network utilities. Network utilities, such as electricity, water and gas reticulation, are essential to the functioning of communities and to people's health safety and wellbeing.

171 While, in the construction of roads, the NZTA works closely with network utility providers, it is proposed that a Network Utility Management Plan be prepared to ensure that the construction of the Project adequately takes account of, and include measures to address, the safety, integrity, protection or, where necessary, relocation of, existing network utilities (refer to proposed conditions DC.52 and DC.53). This Management Plan would be submitted to the Kāpiti Coast District Council for its information and records.

Effects on Urban Form and Function

172 The development of an Expressway through a growing urban area has the potential for both positive and adverse effects on the functioning of that area (for example, effects on local roading and other transportation connections) and the form of its urban environment (such as effects on town centres). The question to be resolved is whether such effects either individually or in combination are adverse to such an extent as to mean it is inappropriate for the Project to proceed. The nature of adverse impacts include on the economic, social, and cultural wellbeing of the existing and future community, as well as well as the broader amenity values of the urban area and the quality of its environment.

173 Although construction of the proposed Expressway will inevitably affect the urban form of this part of Kāpiti District, through the removal of properties, the rate of uptake in current zoned areas and the characteristics of development at some locations, overall urban form is unlikely to significantly alter as a direct consequence of the Project. I note that a succession of roading designations since the 1950s has already significantly influenced the pattern of urban form and development, particularly in Raumati and Paraparaumu, where the inland and coastal urban development has occurred on either side of this designated corridor. The proposed Expressway largely follows this corridor.

174 To a large degree, therefore, the proposed Expressway is consistent with the existing pattern of urban development. Furthermore, significant arterial roads through growing urban areas on the periphery of metropolitan areas are a common part of the form and functioning of such areas.

175 While some adverse effects are likely to occur in respect of commercial activities within the Paraparaumu and Waikanae town centres, in overall terms, these centres are likely to benefit from the removal of through traffic and the opportunities this presents for enhancing the street environment and the attractiveness of these centres.

176 In the area identified and zoned for urban growth in Waikanae North, the alignment of the proposed Expressway will affect the previously anticipated future pattern of urban growth, and thereby necessitate a reconsideration of the present policies. It is my opinion that options are available, through careful location and design of future urban development in this area, to assist in integrating future residential neighbourhoods into the modified environment. The proposed overbridge near Ngā Manu will provide an east-west link road, and there is capacity for further Expressway crossings at other locations in Waikanae North.

177 In addition, the design of the proposed Expressway has sought to maintain existing east-west links across the route to protect the current level of connectivity and functioning of the community.

178 These effects and associated mitigation are discussed in the evidence of **Mr Baily**, and are outlined in further detail in Chapter 16 of the AEE and Technical Report 6. I am satisfied that the proposed Expressway would not significantly affect the urban form and functioning of the Kāpiti Coast, and that the the broader amenity values of the urban area and the quality of its environment will not be significantly affected by the proposed Expressway.

Landscape and visual character and amenity effects

179 The potential adverse landscape and visual effects of the Expressway needs to be considered from a number of perspectives under the RMA – the potential effects on:

179.1 The natural character of the coastal environment and the margins of wetlands, and lakes and rivers and their margins (s6(a));

179.2 Outstanding natural features and landscapes (s6(b)); and

179.3 Amenity values and the quality of the environment (ss7(c) and (f)).

180 I acknowledge that the scale of the earthworks and the scale and elevation of structures associated with the proposed Expressway (i.e. bridges, retaining walls and noise fences) will significantly alter the immediate landscape, particularly where residents have previously enjoyed an undeveloped corridor for many decades (albeit most of it set aside for major roading purposes).

181 However, I note that the actual scale and extent of adverse visual and landscape effects varies along the route and that minimising the level of change was an important factor in route selection and in Project shaping, the decision to generally seek a 100m wide designation corridor in which the Expressway could be contained, thereby providing scope for landscape treatment and visual mitigation to be provided. As I noted above in respect of urban form, a significant arterial road such as an expressway is not out of context with the landscape of a growing urban area that has developed on the route leading into/out of a major metropolitan area such as Wellington.

182 In terms of natural character, only the Waikanae River has been identified by **Mr Evans** as having high natural character, and I accept that the proposed bridging will adversely affect the natural character of a short section of this River. Furthermore, the Waikanae River is the only outstanding natural landscape identified

in the Kāpiti Coast District Plan that the proposed Expressway would traverse. The effects on the river and its environs have been assessed by **Mr Evans** as moderate when considered in terms of the outstanding landscape overall. However, in the immediate vicinity of the river crossing, the effects on the natural and landscape values would be significant. Nevertheless, this location on the River has long been anticipated as being bridged by a major road, including under the existing Western Link Road designation. In addition, proposed planting will assist in mitigating the visual effects of the bridge (conditions DC. 54-59, G.34-40).

183 In regard to visual amenity, the large scale of the Project and the consequent movement of traffic along it will unavoidably affect the amenity and open space values of the rural and residential communities through which it passes. While the proposed mitigation will assist to integrate the earthworks into the local environment and screen views of the road and traffic, the physical presence will impact on the existing amenity of adjoining areas.

184 The physical changes to the dunes and other landforms, features and water bodies will adversely affect the quality of the environment along the Project route. However, the cuts to the dunes will be limited to that required to construct the Expressway, and large areas of the Project corridor to be planted with predominantly locally eco-sourced indigenous vegetation will improve the biodiversity of the environments along the route.

185 The approach applied to the design of the alignment and all associated works has been to avoid adverse landscape and visual effects as far as practicable and to mitigate any residual adverse effects. This is outlined in the evidence of **Mr Evans**, and covered in further detail in Chapter 17 of the AEE and Technical Report 7.

186 I am satisfied that the Project will be able to mitigate the landscape and visual effects insofar as it is practicable, accepting that in some areas, there will a significant and unavoidable change in visual character and amenity from that which currently exists. There will also be impacts on the natural and landscape values of a short section of the Waikanae River, but such changes are not inappropriate given they have long been anticipated as part of a designated roading corridor through this area.

Lighting effects

187 The introduction of road lighting into an area that currently is essentially free of artificial street/road lighting has the potential to adversely affect local amenity values.

188 Most of the length of the proposed Expressway will not have lighting, as it is considered unnecessary for a State highway within a rural or semi-rural environment. Lighting is to be provided at

interchanges to achieve satisfactory illumination for road safety purposes. Lighting will also be required along the proposed cycleway/walkway and on the underbridges where there will be regular pedestrian activity.

189 The detailed design process will address the potential for unreasonable light spill to any residential properties and I have proposed a condition (DC.63) to address this matter.

190 The effects of lighting are outlined in the evidence of **Mr Keith Gibson**, and covered in further detail in Chapter 18 of the AEE and Technical Report 7. Based on his evidence, I am satisfied that the proposed lighting would be able to be designed and operated in a manner that would appropriately maintain residential amenity values in accordance with District Plan standards.

Noise and vibration effects

191 The construction and operation of the proposed Expressway has the potential to adversely affect the health of people, and the amenity values of areas immediately adjacent the road.

192 Construction noise has been assessed as being within the limits of New Zealand Standard 6803:1999 – Acoustics: Construction Noise, and is addressed in the evidence of **Ms Wilkening** and covered in further detail in Chapter 19 of the AEE and Technical Report 16. Construction vibration is been addressed in the evidence of **Mr James Whitlock** and covered in more detail in Chapter 19 of the AEE and in Technical Report 18.

193 In circumstances where construction works occur in the vicinity of sensitive receivers (e.g. residential dwellings), noise and vibration effects will be managed through a range of methods identified in the Construction Noise and Vibration Management Plan, Appendix F of the CEMP.

194 In terms of the long-term operational effects of noise from the proposed Expressway, it is acknowledged that the proposed Expressway will materially increase the noise levels received at many (but not all) adjacent properties. The ambient noise levels in many places along the route are relatively low. This is a factor of the presence of the undeveloped corridor. However, in her assessment **Ms Wilkening** concludes that, with the implementation of the selected mitigation options, external noise levels that will be received at these properties would be acceptable levels for residential areas.

195 The areas where the Project will not materially increase noise levels are generally those already located near principal roads (for example, Leinster Avenue and Kāpiti Road), or which will be

screened through topography (for example, south of Ngarara Road, where dunes would screen much of the Expressway).

196 The alignment of the proposed Expressway took into account opportunities to reduce the potential impact of noise. For example, the alignment of the designation near the Wharemauku Stream was moved to the east from the Western Link Road designation to reduce the potential effects on residences to the west. The width of the designation also sought to provide opportunities for noise attenuation to maintain an appropriate level of aural and visual amenity, such as through the retention of intervening dunes and the creation of planted earth noise bunds.

197 The noise mitigation measures proposed include use of noise-reducing road surfacing in urban areas, noise barriers and, where feasible, planted bunds (earth mounds) to shield adjacent houses from noise. These measures were selected applying best practicable option principles, through a multi-disciplinary assessment process.

198 In regard to vibration effects, the principal sources of likely vibration relate to the use of vibrating machinery and movement of heavy vehicles during construction, and to the quality of the road surface during operation. The assessment of potential vibration effects, both from construction and operation of the Project, concludes that no specific mitigation is considered necessary beyond effective management in accordance with the CNVMP, and maintenance of the road surface in accordance with normal processes.

199 The operational noise and vibration effects of the Project and associated mitigation measures are discussed in the evidence of **Ms Wilkening** and **Mr Whitlock** and are covered in further detail in Chapter 19 of the AEE and Technical Reports 15 and 18.

200 In my opinion, drawing from the noise and vibration assessments (which are based on performance against accepted New Zealand and international standards), the proposed mitigation and treatment of noise emissions and vibration from the construction and operation of the proposed Expressway will protect the health and safety of people and will maintain an appropriate level of amenity for the residential and rural areas through which it would traverse.

Air Quality effects

201 The process of constructing the proposed Expressway, particularly the associated earthworks, has the potential to generate nuisance effects through dust or sand blow that could affect people's health, as well as amenity values. Such effects are anticipated to be minor, and will be managed through the Construction Air Quality Management Plan in Appendix G of the CEMP.

202 The post-construction effect of vehicle emissions on air quality has been assessed, with the conclusion being that there will be an overall reduction in public exposure to vehicle emissions on a regional basis as a result of the Project, primarily due to the reduced congestion and the splitting of traffic volumes between the proposed Expressway and the existing SH1.

203 The assessment of the effects of the proposed Expressway on air quality and public health is discussed in the evidence of **Ms Borger** and **Dr David Black** and is covered in further detail in Chapter 20 of the AEE and Technical Report 13. I am satisfied that the air quality effects arising from the development and operation of the proposed Expressway can be appropriately avoided or mitigated to protect the health and wellbeing of people and the amenity values of adjoining residential areas.

Stormwater and hydrology effects

204 The construction and operation of the proposed Expressway will alter the hydrology of the area in which it is located, delivering stormwater from the road into local waterways, and changing flood flow paths. These changes have the potential to affect ecosystems and exacerbate the risks to people and property from flooding.

205 The alignment and design of the proposed Expressway addressed the need to avoid, remedy or mitigate the effects from these changes. Changes in flood flow paths in most locations along the proposed alignment are anticipated to be negligible and, in some instances, a small reduction in downstream flood risk is expected to occur as the Project will contain and manage flows in high rainfall events through the development of stormwater retention areas that will hold back floodwater during high rainfall events, which is then released slowly back into the waterbodies.

206 The construction of water crossings (bridges and culverts) and limited stream realignment will result in flow changes, but the effects on water quality and ecology will be minimised due to the construction and stream realignment methodology proposed. All crossings have been designed in accordance with local authority requirements for flood flows.

207 The construction of the Expressway will require extensive earthworks along the route, but these will be managed in a staged process and with the application of BPO to the treatment and disposal of sediment. The design of the proposed Expressway proposes to treat all stormwater runoff within the designation footprint using natural treatment and disposal methods, such as swales and wetlands.

208 These effects and the associated mitigation are discussed in the evidence of **Mr Levy**, **Mr Graeme Ridley** and **Mr Andrew Goldie,**

and are covered in further detail in Chapter 24 of the AEE and Technical Report 22. Based on the evidence, I am satisfied that the effects of the proposed Expressway on stormwater and hydrology will be able to be appropriately avoided, remedied or mitigated through the design of the Project and the application of the proposed conditions. My conclusion here informs my assessment of ecology effects below.

Groundwater effects

209 The construction and operation of the proposed Expressway has the potential to affect the local groundwater systems and resources, through changes to groundwater flows. These changes have the potential to affect ecosystems and the ability of the community to utilise the groundwater resources, acknowledging there is a reasonably high usage of groundwater resources in the District.

210 The construction of the proposed Expressway has the potential to cause a change (lowering or rise) in groundwater levels. Groundwater modelling was undertaken to assess the effects of the construction (short term) and operation (long term) of the proposed Expressway on regional and local groundwater flows.

211 The modelling indicates that the construction groundwater take is likely to result in small changes to groundwater levels, flow directions and aquifer through-flow, but that such changes will be limited to the period of proposed Expressway construction. In the longer term, the proposed Expressway embankments will result in very small long term changes to groundwater levels and flow directions, with no discernible changes in aquifer through-flow.

212 To ensure that appropriate mitigation measures are triggered in the event that actual effects differ from those predicted, a monitoring programme will be implemented prior to construction to record natural variations in groundwater levels and surface water flows. This will establish a benchmark against which actual changes recorded during and following construction can be assessed. These are proposed to be implemented through conditions of resource consent.

213 The potential effects from the construction and operation of the proposed Expressway on groundwater are outlined in the evidence of **Ms Ann Williams**, and are covered in further detail in Chapter 25 of the AEE and Technical Report 21. Based on the technical assessment, the effects of the Project on groundwater are anticipated to be less than minor, and that an adaptive management regime can adequately respond to any adverse changes that may occur during construction. My conclusion here informs my assessment of ecology effects below.

Land and groundwater contamination effects

214 The construction of the proposed Expressway will disturb land within the route that has been identified as contaminated or potentially contaminated. Such disturbance and the disposal of any contaminated soil have the potential to affect human health and/or discharge contaminants into the waterways and natural systems, and affect ecosystems.

215 The contamination assessment identified four existing sites along the proposed Expressway alignment that have the potential to affect human health and the environment within the Project area through the disturbance and/or use of contaminated land.

216 The potential adverse human health effects and environmental effects will be mitigated by measures including the employment of a contaminated land specialist during construction, adherence to the relevant management plans in the CEMP and a Contractor Health and Safety Plan, compliance with resource consent conditions, containment of contaminants on-site, and/or disposal of contaminated soil to licensed landfills.

217 More detail on the potential effects from the disturbance and/or use of contaminated soil during the construction of the proposed Expressway is provided in the evidence of **Dr Kerry Laing**, and is covered in further detail in Chapter 27 of the AEE and Technical Report 23. In my opinion, based on this evidence, the risks of contaminated soil disturbance to human health, ecology and the environment are minor, and the proposed measures for managing the disturbance and disposal of contaminated soil will satisfactorily mitigate the risks to human health and ecosystems.

Water Quality

218 The construction and operation of the proposed Expressway has the potential to discharge contaminants into the waterways and wetlands, and thereby adversely affect ecosystems.

219 During construction, erosion and sediment control devices will be used to treat sediment runoff in stormwater in accordance with best practice, under the framework of the proposed management plans. During significant rainfall events, some discharge of sediment into downstream waterways is inevitable; however, water quality effects during construction are predicted to be minimal, with suspended sediment in water anticipated to clear quickly out of streams, with minimal levels of deposition in sensitive locations.

220 The proposed treatment of stormwater runoff from the Expressway, once it is in operation, has been designed to protect the quality of natural water systems from any contaminants from the road. The levels of contaminants entering the local stream and river systems as a result of the operation of the Project are estimated to decrease

from the levels of contaminants entering those waterways under the current situation (given the absence of comprehensive stormwater treatment on existing roads), with the levels of contaminants currently entering the Waikanae River estuary essentially remaining unchanged following completion of the Project.

221 These effects and associated mitigation are discussed in the evidence of **Mr Ridley,** and are outlined in further detail in Chapter 28 of the AEE and Technical Report 24. Based on the evidence, I am satisfied that the effects of the construction and operation of the proposed Expressway on ecosystems will be negligible.

Ecological effects

222 The construction and operation of the proposed Expressway has the potential to adversely affect the ecology of the area; in particular, areas of significant indigenous vegetation and significant habitats of indigenous fauna, as well as the intrinsic values of ecosystems.

223 The potential effects of the proposed Expressway on ecology were a key matter in the development of the Project. This was firstly in seeking opportunities to avoid significant adverse effects, and secondly in mitigating the residual and potential ongoing operational effects.

224 The final alignment of the proposed Expressway avoids all significant wetlands and areas of significant indigenous vegetation. The waterways that the Expressway would cross are highly modified and, in many places, are relatively degraded, with low water quality. Those wetlands that would be affected by the Project have relatively low ecological values.

225 Impacts which are not practicably avoidable, such as the culverting or bridging of streams, will largely be mitigated by ecological enhancement within the designation footprint, such as stream restoration and replanting with indigenous vegetation in specified areas. It is also proposed to pursue use of surplus peat to restore a part of the former oxidation ponds in the Pharazyn Reserve, Waikanae Beach, following on from a similar recent exercise in the ponds by KiwiRail.

226 Effects on the habitat of terrestrial fauna populations such as fernbird and lizards are estimated to be minor to moderate, and can be effectively managed through habitat re-creation (such as by the proposed wetlands enhancement), in combination with application of appropriate construction management and monitoring methods.

227 The potential ecological impact of predicted sediment runoff has been assessed as negligible due in part to relatively flat topography and soil types, and also that the existing freshwater species in

affected streams currently face naturally occurring temporary increases in sediment levels and are tolerant to these events.

228 The use of sound sediment and erosion control methods during construction should ensure that effects on downstream wetlands and on the coastal environment are avoided.

229 An adaptive management approach will be used to monitor and respond to any effects on hydrology and dependent ecological systems.

230 The ecological effects and associated mitigation relating to the Project are discussed in the evidence of **Dr Keesing**, **Dr Leigh Bull**, **Mr Park**, **Dr de Luca** and **Mr Fuller**, with further detail contained in Chapters 21 to 23 of the AEE and Technical Reports 26 to 31. In my opinion, the Project satisfactorily avoids adversely impacting on areas of significant indigenous vegetation and significant habitats of indigenous fauna and any other effects can be appropriately mitigated to protect the intrinsic values of ecosystems and the quality of the environment in accordance with s6(c) and ss7(d) and (f) of the Act.

Ground settlement effects

231 The construction of the proposed Expressway has the potential to create ground settlement that may affect properties in the immediate vicinity.

232 Key geotechnical considerations for settlement potential are the presence, thickness and nature of peat deposits along the route. The potential effects of the estimated settlement on existing buildings, services and transport infrastructure have been assessed, and it has been concluded that the predicted settlement risk effects on buildings are assessed to be low to negligible.

233 It is proposed that, for buildings in close proximity to the proposed Expressway, individual assessments of potential settlement effects will occur through the Settlement Management Plan process prior to work commencing on construction. A settlement monitoring regime is proposed in the Settlement Management Plan that will measure the actual occurrences of settlement and resulting effects; further mitigation measures can then be implemented should the measured settlement or its effects require it.

234 More detail on the potential effects from the construction and operation of the proposed Expressway on ground settlement is provided in the evidence of **Mr Gavin Alexander**, and is covered in further detail in Chapter 26 of the AEE and Technical Report 35. I am satisfied that the effects of the Project on ground settlement will be minor, and that an adaptive management regime can adequately respond to any adverse effects that may occur during construction.

Public Health Effects

235 The construction and operation of the proposed Expressway has the potential to create adverse effects on public health and thereby affect the health, safety and wellbeing of people and communities.

236 The various contributing aspects of public health have been assessed by a range of experts: air quality and contaminant emissions, water and soil effects, noise, and vibration. In turn, these assessments have been reviewed by an experienced public health expert, **Dr Black** who is confident that potential public health effects have been thoroughly considered in the development of this Project.

237 In particular regard to vehicle contaminant emissions, Dr Black concludes that the impact on public health overall is likely to be positive, because of the removal of through traffic from the living environment of urban roads, and with vehicles being operated in a manner which is less polluting and safer.

238 Regarding soil and water quality effects, provided compliance with the conditions, controls and mitigation relating to sediment run-off and dust, as outlined in the CEMP and related management plans, I am confident there will be no effects on public health. Regarding noise, provided general compliance with the appropriate standards is met, public health will be protected.

239 More detail on the potential effects on public health from the construction and operation of the proposed Expressway is provided in the evidence of **Dr Black**. Based on the evidence, I am satisfied that the proposed Expressway will not adversely affect the health, safety and wellbeing of people and communities, provided the Project complies with the appropriate standards and conditions.

Economic Impacts

240 The development of the proposed Expressway through this part of the Kāpiti Coast will have some impacts on the economic functioning and wellbeing of the community, primarily through the removal of through traffic from the existing State highway, and through increased accessibility and efficiency in traffic movement.

241 It is likely the Project will adversely affect some individual businesses that rely to a greater or lesser extent on passing through traffic on the existing State highway, and accordingly some adjustments in the District's commercial functioning are therefore envisaged.

242 However, it is anticipated that the long-term vitality and vibrancy of the Kāpiti District's commercial areas and town centres will be maintained, if not enhanced, by an increased rate of commercial and industrial land uptake, and improved urban environment in the

Waikanae and Paraparaumu town centres resulting from the reduction in through traffic (particularly freight traffic), and improved regional and national connectivity.

243 These effects and associated mitigation are discussed in the evidence of **Mr Copeland,** and are outlined in further detail in Chapter 29 of the AEE. Based on the evidence, I am satisfied that any adverse effects on the economic wellbeing of the District will be minor, and that there will be long-term benefits for the economic functioning and viability of the area.

Social Impacts

244 The construction and operation of the proposed Expressway will have some impacts on the social wellbeing of the District's inhabitants. The social effects of the proposed Expressway will range in significance, between adverse and beneficial, across the community, over time and along the length of the Project.

245 From a regional perspective, it is anticipated that there would be significant social benefits, derived from the economic, safety and transport/accessibility benefits of the proposed Expressway.

246 Arising from its economic and transportation benefits, the Project would have social benefits for the District in terms of improved accessibility. However, there would be negative social effects which will be largely borne by those in neighbourhoods immediately adjoining the proposed Expressway.

247 The construction and use of the proposed Expressway will alter the existing local social environment as it would affect those factors that influence people's social well-being. That includes how the Project affects connectivity and movement, amenity values and local character, open space and recreational values. However, the Project has been designed to mitigate a number of potentially negative social effects; for example, through its measures to maintain or improve local road accessibility throughout the communities and to construct a cycleway/walkway along the entire route so that the existing patterns of connectivity are sustained.

248 Many of the negative social effects would occur during construction, primarily through the disruption and noise, and accordingly it is important that these effects are mitigated through effective construction management, communication and community liaison. The proposed measures include the preparation of a Stakeholder and Communications Management Plan, Appendix S to the CEMP, the establishment of a community liaison group, as well as management measures implemented through the CEMP and its subsidiary plans (for example, measures to address construction traffic, noise, vibration, air quality – refer to the evidence of **Mr**

Hewett, **Ms Wilkening**, **Mr Whitlock** and **Ms Borger** respectively).

249 The actual and potential social impacts of the proposed Expressway are addressed in the evidence of **Ms Meade Rose** and are outlined in further detail in Chapter 30 of the AEE and Technical Report 20.

250 Once in operation, **Ms Meade Rose** anticipates the scale of the social impacts from the proposed Expressway will diminish as people and communities adjust to the presence of the road. In overall terms, I am satisfied that the effects of the proposed Expressway on the social wellbeing of the District will be positive.

Cumulative Effects on Amenity Values

251 As I discuss earlier in this evidence, section 7(c) of the Act requires that particular regard be given to "the maintenance and enhancement of amenity values". Under section 2 RMA, amenity values means "those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes". Thus, amenity values are a reflection of a range of attributes about a particular environment or location.

252 Amenity values vary according to different environments, depending on the physical and natural attributes of an area, the nature of activities that occur within it and their effects, and the experience and expectations of people in relation to those characteristics. Thus, amenity values will vary as to whether it is not only an urban or rural environment, but also as to the kind of urban or rural environment. The Project route and its vicinity, for example, includes fully developed residential areas, low density residential areas, commercial/industrial areas, rural lifestyle, horticultural and pastoral farmland, and areas for recreational and open space purposes.

253 Amenity values are also somewhat subjective; every individual will have differing anticipations and opinions, influenced by the expectations about any particular environment. For instance, expectations about rural amenity values will differ from those related to a commercial or industrial environment. In planning terms, it is impracticable to maintain amenity to meet every individual's personal expectations, so a broad overall judgment is required to ascertain acceptable general levels of amenity for particular types of environment. This process is guided by consultation during the development of District Plans, taking into consideration the need to provide for development opportunities and a certain envelope of change (i.e. the 'permitted baseline').

254 In respect of the proposed Expressway, the effects on amenity values will be derived from a number of sources, both during

construction and operation: noise and vibration, visual changes, air quality, lighting, and the overall quality of the urban environment.

255 The effects on noise levels is addressed in the evidence of **Ms Wilkening**, and is outlined in further detail in Chapter 19 of the AEE and Technical Reports 15 to 17. The effects from vibration are addressed in the evidence of **Mr Whitlock**, and are outlined in further detail in Chapter 19 of the AEE and Technical Reports 18. The visual effects of the proposed Expressway are discussed in the evidence of **Mr Evans,** and are outlined in further detail in Chapter 17 of the AEE and Technical Report 7. The effects on air quality are addressed in the evidence of **Ms Borger**, and are outlined in further detail in Chapter 20 of the AEE and Technical Report 13. The effects of lighting are addressed in the evidence of **Mr Gibson**, and are outlined in further detail in Chapter 18 of the AEE and Technical Report 7. The effects of the Project on urban form and functioning are addressed in the evidence of **Mr Baily**, and are outlined in further detail in Chapter 16 of the AEE and Technical Report 6.

256 The existing amenity values enjoyed by residents adjacent to the route of the proposed Expressway will be adversely affected by the Project; these amenity values will be affected in particular by the change in ambient noise levels and the visual presence of the road and passing traffic. The mitigation of these effects was a key consideration in the alignment and design of the proposed Expressway, with a 100m wide designation corridor proposed to provide opportunities for mitigation through such measures as earthwork formation, bunding and planting. The opportunities to mitigate the effects on amenity values will vary along the route: in some areas, for example, the retention of intervening dunes will provide significant visual and aural screening; in other areas, specific measures will need to be implemented to mitigate the effects on the amenity values of adjacent neighbourhoods.

257 Cumulatively, I am satisfied that the overall levels of amenity values along the route of the proposed Expressway will be maintained at an appropriate quality, accepting that these will vary according to specific location and circumstances.

ASSESSMENT AGAINST POLICY AND PLANNING DOCUMENTS

Introduction

258 For the consideration of both the NoR and the resource consent applications, there is an obligation, "subject to Part 2", to "have particular regard to" any relevant provision of:

258.1 a national policy statement;

258.2 a New Zealand coastal policy statement;

258.3 a regional policy statement or proposed regional policy statement; and

258.4 a plan or proposed plan.[29]

259 For the resource consent applications, there is also a requirement to have particular regard to any relevant provisions of:

259.1 a national environmental standard; and

259.2 other regulations.

260 In both cases, however, there is also a direction to consider any other relevant matter the Board considers reasonably necessary.

Summary of relevant planning documents

261 Part B of the AEE sets out how various policy, regulatory and other planning documents are relevant to the consideration of the Project and the related NoR and resource consent applications. I consider the relevant documents to be:

261.1 New Zealand Coastal Policy Statement 2010;

261.2 National Policy Statement for Freshwater Management 2011;

261.3 National Policy Statement on Electricity Transmission 2008;

261.4 National Environmental Standards for Air Quality 2004;

261.5 National Environmental Standards for Sources of Human Drinking Water 2007;

261.6 National Environmental Standards for Electricity Transmission Activities 2009;

261.7 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011;

261.8 Operative Wellington Regional Policy Statement 1995;

261.9 Proposed Wellington Regional Policy Statement;

261.10 Wellington Regional Freshwater Plan 2000;

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[29] Refer s171(1)(a) and s104(1)(b)

261.11 Wellington Regional Air Quality Plan 2000;

261.12 Wellington Regional Coastal Plan 2000;

261.13 Wellington Regional Plan for Discharges to Land 1999;

261.14 Wellington Regional Soil Plan 2000; and

261.15 Kāpiti Coast District Plan 1999.

262 While some of the above documents are relevant to the broader consideration of the Project, others apply only to particular resource consent applications.

263 Chapter 4 of the AEE provides a brief description of the main aspects of these documents that are of relevance to the Project. The relevant provisions of the above documents are set out in Technical Report 2.

264 I return to assess matters by reference to relevant provisions of these documents, drawing on my assessment of the environmental effects of the Project above.

S171(1)(a) – Assessment of NoR against relevant policy and planning documents

265 I have undertaken a thorough assessment of the Project (refer to Chapter 35 of the AEE) and its effects against Part 2 of the RMA and the relevant objectives and policies in the documents set out in paragraph 261 of my evidence. Based on this assessment, I consider that the proposed designation is consistent with these objectives and policies.

266 In my opinion, the Project will enable people and communities to provide for their social and economic wellbeing by facilitating economic and population growth, improving accessibility and connectivity and providing safety improvements and resilience to the community through an enhanced and more secure transport network. The Project would also provide new opportunities for recreational walking, cycling and riding.

267 The Project represents a significant infrastructure development that will benefit transportation and economic growth for both the District and wider region. It will also facilitate improved national transportation linkages and the economic benefits to be derived from such improvements. This is recognised in the economic, transportation, growth and accessibility benefits that have been identified in the AEE and supporting technical reports and in the evidence of **Mr Copeland**, **Mr Murray** and **Mr Baily**.

268 I note that in providing for sustainable management there is a requirement to balance consideration of:

268.1 The sometimes competing resource values; and

268.2 The benefits with the adverse effects associated with a project.

269 In this regard, I consider that where this relates to a designation for a public work this exercise involves a balanced consideration of the regional and national benefits of the work with any more localised, adverse effects on the community that might arise. In terms of this Project, I am of the opinion that an appropriate balance has been struck.

S104(1)(b) – Assessment of resource consent applications against relevant policy and planning documents

270 As I outlined above, my assessment is that the Project is consistent with the relevant objectives and policies of the key planning instruments.

271 In relation to the resource consents that are required to construct and operate the proposed Expressway, I consider that the aspects of the Project requiring resource consent are consistent with the relevant objectives and policies of the regional policy statement and regional plans.[30] In particular, in regard to water quality and the effects on ecological values, many of the streams and wetlands that the proposed Expressway would cross have been adversely affected over time through changing land use patterns and modifications to water courses. While some loss of streambed will occur, the Project, through the proposed mitigation measures such as wetland restoration and riparian planting, will allow for long-term overall improvement of freshwater habitats in the area, consistent with Objective 4.1.4 of the Regional Freshwater Plan. Indeed, the reinstatement of freshwater features through reconstruction elsewhere, revegetation, riparian planting and other measures to manage effects is anticipated to lead to a positive overall effect and an improvement to the life-supporting capacity of water and aquatic ecosystems. This is consistent with Objectives 4.1.5 and 4.1.7 of the Regional Freshwater Plan.

272 Consistent with Policies 4.2.9 and 4.2.11 of the Regional Freshwater Plan, **Dr Keesing** concludes that the Project and its associated works in relation to waterways and freshwater aquatic ecology can be achieved without long term loss to values and quantity. Further,

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[30] These include the Regional Freshwater Plan, the Regional Air Quality Management Plan, the Regional Coastal Plan, the Regional Soil Plan and the Regional Plan for Discharges to Land

the mitigation proposed will cause a net gain in those values post construction which will secure a long-term environmental enhancement of these habitats for the Region.

273 I also consider the Project is consistent with the policies of the National Policy Statement on Freshwater Management, particularly in terms of protecting significant values of wetlands (Policy B4).

274 A summary of my assessment of the Project against the relevant regional planning instruments is provided in Chapter 35 of the AEE.

275 I note that the s149G Key Issues Report from Greater Wellington Regional Council identified a number of additional policies that are relevant in the assessment of the regional resource consent applications. I have reviewed these policies and concur that these provisions are relevant matters to take into account. I have reviewed the resource consent applications against these provisions, and conclude that Project is consistent with these provisions, and that all relevant matters have been assessed and considered as part of the overall assessment of environmental effects.

"Other" relevant statutory documents

276 There are a number of non-statutory documents that I consider to be relevant "other matters" in terms of sections 171(1)(d) and/or 104(1)(c) of the RMA. These are listed in Section 35.14 of the AEE, and are discussed in the associated assessment set out below.

277 Overall, I conclude that the Project will not be contrary to the relevant provisions, direction and focus of these "other matters", but there are a number of key points I wish to highlight further:

277.1 The District Council's *Long Term Plan* (2012-2032) is based on achieving the Kāpiti Coast community's vision for the future as described in the *Choosing Futures: the Community's Vision for the Kāpiti Coast District* (2009, reaffirmed in 2012), in which there are seven outcome areas. This is supported by Local Outcomes Statements,[31] to reflect the individual local focus of the different geographical areas of the District. While these Local Outcomes Statements were developed well prior to the identification of this section of SH1 as a Road of National Significance, the outcomes they sought were taken into account during the development of the Project;

277.2 The District Council has also developed a number of strategies to guide the long-term vision for the District and its

[31] Currently there are Local Outcomes Statements for Ōtaki, Waikanae North, Paraparaumu Town Centre, Paraparaumu Beach, Raumati Beach, Raumati South, Paekākāriki, Otaihanga and Peka Peka

resources.[32] The development of the Project took these strategies into account as relevant. For example, in relation to the Cycleways, Walkways and Bridleways (CWB) Strategy, which has the vision that the Kāpiti Coast is renowned for walking, cycling and horse riding, the Project sought to assist in achieving the following two objectives:

1. *To promote walking, cycling and horse riding as safe everyday modes of transport and recreation.*

2. *To develop safe networks that improve walking, cycling and horse riding access and linkages throughout Kāpiti.*

277.3 The *Government Policy Statement on Land Transport Funding 2012* (*GPS*) identifies the seven RoNS as a matter of priority. The Project is part of the Wellington Northern Corridor RoNS. The evidence of **Mr James** identifies that the route and associated alignment are a critical part of the RoNS and concludes that the Project is consistent with the GPS;

277.4 The Project will generally be consistent with the aims of the *New Zealand Transport Strategy* and the goals of the *National State Highway Strategy* as it will result in a significant improvement in overall traffic safety, journey times and journey time reliability; provides opportunities for bus service enhancements and better access to and parking at the railway stations, mitigate transport noise effects through targeted mitigation measures; provide new opportunities for recreational walking, cycling and riding; and result in the re-vegetation of extensive areas within the Project footprint with native, locally sourced plan material;

277.5 There are a number of relevant transport related strategy documents that I have considered, all of which have overarching focus on economic and regional development and safety, along with connectivity, accessibility and environmental sustainability.[33] The Project will be consistent with the direction and intent of these documents as it has been designed and developed with their associated aims and/or objectives in mind; will reduce the overall level of vehicle emissions through reduced congestion and improved travel movements; will substantially improve accessibility

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[32] The most relevant strategies in relation to the Proposal being the Cycleways, Walkways and Bridleways Strategy, the Development Management Strategy, Supporting Economic Development of Kāpiti, and the Sustainable Transport Strategy

[33] These documents include the National Land transport Programme 2009-2012, the 2011-12 State Highway Plan, the NZTA Environmental Plan (2008), and the Getting There – on Foot, by Cycle Strategic Implementation Plan.

through and within the Kāpiti Coast; and will significantly enhance cycling and walking connectivity. This conclusion is supported by the evidence of **Mr Murray**;

277.6 The Project will be entirely consistent with initiatives in the Wellington Regional Strategy[34] to promote efficient regional form as it will strengthen cross-region linkages and connectivity; enhance the local amenity of coastal communities; facilitate the reconnection of the Paraparaumu and Waikanae town centres; and improve public transport linkages;

277.7 Regard has also been had in the design and development of the Project to a range of relevant strategies prepared by KCDC,[35] and the Project is consistent with their intent.

278 Since the applications for the Project were submitted to the EPA on 20 April 2012, the Greater Wellington Regional Council has adopted (on 15 August 2012) a revised Western Corridor Plan, which sets out the proposed transportation projects (roading and public transport) within the transport corridor between Ngauranga to Ōtaki. The Western Corridor Plan is one of a series of Plans that implement the Wellington Regional Land Transport Strategy. The 2012 Western Corridor Plan, which supersedes the 2006 Plan, incorporates the Wellington Road of National Significance (RoNS) as a priority for investment.

SECTION 105 AND 107 CONSIDERATIONS

Section 105 – Additional Matters to Consider for Discharge Permits

279 Section 105(1) sets out the matters that a consent authority must have regard to when considering a resource consent application for a discharge permit, in addition to those under section 104(1). As some of the applications relating to this Project are for permits to

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[34] The Wellington Regional Strategy (WRS) is a sustainable growth strategy with a core aim to facilitate growth in exports from the Wellington Region, based around its capital status, global links and local geography. A collaborative Project involving all of the Region's local authorities, the WRS identifies three focus areas for sustainable growth: leadership and partnerships; growing the region's economy; and good regional form. "Good regional form" is defined as meaning ensuring the physical arrangement of urban and rural communities linked together by strong city and town centres, well integrated transport systems, good quality urban design, and a network of open spaces and recreational amenities that collectively contribute to the quality of life in the Region.

[35] The most relevant strategies in relation to the Proposal being the Cycleways, Walkways and Bridleways Strategy, the Development Management Strategy, Supporting Economic Development of Kāpiti, and the Sustainable Transport Strategy.

discharge contaminants into water and onto land, section 105 is relevant.

280 Under section 105(1), consideration needs to be given to:

280.1 the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and

280.2 the applicant's reasons for the proposed choice; and

280.3 any possible alternative methods of discharge, including discharge into any other receiving environment.

281 Construction of the Project involves major earthworks, and consequently, notwithstanding the proposed treatment systems, stormwater discharge will inevitably contain higher levels of sediment than normal during the construction period and will potentially increase the volume of sediment run-off to freshwater, wetland and marine receiving environments.[36] The most sensitive of these potential receiving environments are the Te Harakeke wetland and the Waikanae River estuary.[37]

282 The Erosion and Sediment Control Plan outlines a range of treatment methods that can be used to reduce the amount of sediment entering waterbodies, particularly heavier sediments (refer the evidence of **Mr Ridley**). The "best practicable option" is to be employed to remedy, mitigate or offset any potential effects on these areas as no other feasible alternative method of discharge is available: this approach is, in my opinion, in accordance with the principles of the RMA.

283 The selection of the best practicable option for any one section of earthworks along the route is to be informed by a number of principles regarding the control of erosion and sediment, including minimising disturbance, the staging of construction, protecting steep slopes and waterbodies, undertaking progressive and rapid stabilisation of disturbed areas, perimeter control, and deploying detention devices.

284 The construction of the Project will involve all discharges being appropriately managed to ensure that any effects on freshwater,

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[36] A detailed description of these receiving environments and the nature of the corresponding discharges proposed are included in Part G, Volume 2 and relevant Technical Reports, Volume 3 of the AEE

[37] Refer the evidence of **Mr Stephen Fuller**, paragraph 20. The proposed alignment was chosen, in part, to avoid directly impacting on wetlands of high ecological value, while most of the other high value wetlands are not downstream from the Proposal.

marine and wetland receiving environments are negligible.[38] In addition, it is proposed to monitor discharges into the sensitive environments downstream from the Expressway construction zone, to be able to promptly respond to any adverse discharges and take appropriate action as required.[39]

285 Accordingly, in my opinion, the applicant has given appropriate regard to the matters in section 105 in the assessment of and in the proposed management of the effects of the discharge of contaminants during the construction of the proposed Expressway.

Section 107 – Additional Matters to Consider for Discharge Permits

286 As the Project involves the discharge of contaminants or water into water (i.e. it involves the potential discharge of silt laden water into streams) which is likely to increase sediment levels above current levels during construction, an assessment under section 107 is required.

287 In brief, section 107 prohibits consent being granted that would give rise to certain specified environmental consequences unless certain specified exceptions to that prohibition applied. Of the prohibitions listed in section 107(1), my understanding is that those that are relevant to discharges of contaminants from the Project are:

287.1 A conspicuous change in the colour or visual clarity (section 107(1)(d)); and

287.2 Any significant adverse effects on aquatic life (section 107(1)(g)).

288 The prohibition on granting consent giving rise to any of the effects listed in section 107(1) does not apply, and the Board may grant consent if the Board is satisfied:

288.1 that it is "consistent with the purpose of the Act" to grant the discharge consent, and

288.2 at least one of the following is satisfied:

(a) That "exceptional circumstances justify the granting" of the discharge permit, or

(b) That "the discharge is of a temporary nature", or

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[38] Refer to the evidence of **Mr Graeme Ridley**

[39] Refer to the evidence of **Mr Stephen Fuller**

(c) That "the discharge is associated with necessary maintenance work".

289 The earthworks and construction works will, at times, cause a change in colour or visual clarity of affected waterbodies running through the worksite.[40] However, the proposed ESCP has a focus on ensuring that the level of change does not cause significant or permanent adverse effects on water quality and on the receiving environment.

290 The assessments in the AEE and in the technical reports demonstrate that the Project will meet the tests within section 107(2)(b) for the following reasons:

290.1 The discharges will be short term and therefore of a temporary nature;

290.2 The effects will occur intermittently, but not consistently, during the construction period of the Project which is expected to be in the order of four to five years – i.e. of a temporary nature;

290.3 Effects on stream water quality are not representative of a "typical" day of work on the site, but instead represent the result of an unlikely or extreme weather event (1 in 10 year storm or worse), which will be a temporary event;

290.4 Measures can be taken to minimise the likelihood of adverse effects resulting from an extreme weather event – these are set out in the ESCP;

290.5 As discussed in Technical Report 26, Volume 3, moderate adverse effects are only likely to arise when a combination of exceptional events all coincide at once, and there are a range of measures that can be used to further reduce the chances of all these factors coinciding;

290.6 There will be no ongoing adverse effects once the Project's construction has been completed, and there will be some positive effects arising from the implementation of the Project in terms of improving the overall level of discharge of contaminants from roads on the District; and

290.7 It will be consistent with the purpose of the RMA to grant the discharge permits given the scale and significance of the Project and the temporary nature of the effects.

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[40] Refer to the evidence of **Mr Graeme Ridley**

291 In summary, I consider that the Project will meet the tests outlined in section 107 of the RMA, particularly in that any discharges of sediment will be of a temporary and infrequent nature (s107(2)(b)).

PART 2 ANALYSIS

292 In Part I (Section 35.17) of the AEE, I assessed the Project against Part 2 of the RMA and concluded that it will not be contrary to as it:

292.1 meets the sustainable management purpose of the Act in section 5;

292.2 appropriately recognises and provides for the relevant matters in section 6;

292.3 has particular regard to the relevant matters in section 7; and

292.4 meets the requirements of section 8.

293 Having reviewed the additional information presented in evidence and submissions my conclusion on the Project remains unchanged.

294 In arriving at this position, I acknowledge that the Project will have adverse effects in some areas, particularly for those people who live adjacent to the proposed Expressway. However, on balance I consider that the management and mitigation methods proposed (and which are reflected in the designation and consent conditions) will achieve sustainable management of natural and physical resources and are consistent with the purpose and principles of the RMA.

Section 5

295 I consider that the Project comprises a significant infrastructure development that will result in positive transport and economic effects at a local, regional and national level. This is reflected in the identified economic, transportation, growth and accessibility benefits that have been identified in the AEE and associated technical reports and in the evidence presented by **Mr James, Mr Copeland, Ms Meade Rose** and **Mr Murray**.

296 The evidence of **Mr Murray** also demonstrates that the Project will enable people and communities to provide for their social, economic and cultural well-being and for their health and safety by improving the resilience of the transport network, improving local and regional accessibility and connectivity, reducing the likelihood of vehicle crashes and improving freight movement and travel time reliability.

297 I acknowledge that there will be adverse effects on the environment arising from the Project – the proposed Expressway will represent a significant change to the local environment, notwithstanding that most of the route has long been planned as a major roading corridor. However, in overall terms, the Project will deliver significant benefits and enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—

(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment

298 Many of the construction related effects are of a temporary nature and can be appropriately managed in accordance with best practice methods and monitoring. In the longer term, there will be a range of environmental benefits to be obtained from a number of proposed mitigation measures including indigenous revegetation, stream and wetland restoration.

Section 6

299 Overall, I am of the opinion that the Project recognises and provides for the relevant matters in section 6 of the RMA, and would reiterate the following key points:

299.1 The Project seeks to avoid, as far as practicable, adversely affecting streams and wetlands with high natural character.[41] The proposed restoration and planting along riparian edges and degraded wetlands will mitigate the loss of natural character, and in the long-term it is anticipated that the quality of instream habitats will be improved. The design of culverts and bridges has taken into account the effect on the ecological functioning of the affected waterways to mitigate their impact. These matters are discussed in the evidence of **Mr Fuller, Mr Park** and **Dr Keesing**.

299.2 The Project has been designed to mitigate adverse effects on the characteristics and values of the Waikanae River corridor, currently an identified outstanding natural landscape[42] in the

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41 Section 6(a), RMA

42 Section 6(b), RMA

Kāpiti Coast District Plan, in a location that has long been identified as the crossing point of a major road – this is discussed in the evidence of **Mr Evans**.

299.3 Areas of significant indigenous vegetation[43] have generally been avoided by the Project, and indigenous biodiversity within the Project area will be enriched and enhanced through a combination of new planting and use of locally sourced indigenous species wherever possible. The evidence of **Mr Park** and **Mr Fuller** further demonstrates that the Project overall will not have a significant effect on the habitats of indigenous fauna.

299.4 Provision is made for the maintenance and enhancement of public access to and along the margins of streams and rivers in the Project area through the construction of new walking and cycling paths, as is discussed in the evidence of **Mr Nancekivell** and **Mr Baily.**[44]

299.5 The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga[45] has been fully taken into account in the route selection and design of the Project, and in the associated mitigation measures. This has been the outcome of extensive engagement with iwi, including in memoranda of understanding being signed between NZTA and Te Rūnanga o Āti Awa ki Whakarongotai Inc. and the Takamore Trust, and is discussed in the evidence of **Mr Kamo**. In particular, the Alliance undertook early and ongoing engagement with the Takamore Trust throughout the alignment and design development process, given the Trust's kaitiaki role and relationship with the important cultural and spiritual values associated with the Takamore Cultural Heritage Precinct, which includes a registered wāhi tapu and an urupā.

299.6 The protection of historic heritage[46] has been explicitly recognised in the route selection and design process for the proposed Expressway and has been provided for through such measures as the mitigation proposed in the Takamore Wāhi Tapu Area and the detailed investigations that will be undertaken in areas of high archaeological potential prior to construction – this is discussed in the evidence of **Mr Kamo, Ms O'Keeffe** and **Mr Bowman**.

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43 Section 6(c), RMA

44 Section 6(d), RMA

45 Section 6(e), RMA

46 Section 6(f), RMA

299.7 The Project does not impact on any protected customary rights.[47]

Section 7

300 I am also of the opinion that the Project has had particular regard, and appropriately responded to, the relevant matters in section 7 of the RMA. Key points of particular relevance are as follows:

300.1 The kaitiakitanga of tangata whenua[48] has been recognised by recognition of their status in the engagement undertaken for the Project, and through commissioning specific cultural impact statements from Te Rūnanga o Āti Awa ki Whakarongotai Inc and the Takamore Trust (refer to Technical Report 3, Consultation Summary, and Technical Reports 11 and 12, Cultural Impact Assessments by Te Ati Awa ki Whakarongotai and Takamore Trust). In particular, specific recognition was given to the role of the Takamore Trust as kaitiaki of the Takamore Cultural Heritage Precinct throughout the development of the proposed Expressway. I acknowledge that iwi still oppose in principle the proposed Expressway on its route, but note the NZTA is committed to continue to engage with iwi on measures to mitigate the effects.

300.2 The ethic of stewardship[49] has been recognised through:

(a) Engagement with, and participation of, tangata whenua in hui and working groups throughout the development of the Project (refer to evidence of **Mr Kamo**); and

(b) Engagement with community groups and agencies who have specific interest in, and who exercise stewardship over, particular resources (refer to the evidence of **Ms Black**).

300.3 The Project will improve the efficient use of the State Highway network as a physical resource,[50] and improve the use and function of the wider land transport network – this is discussed in the evidence of **Mr Murray**.

300.4 An appropriate level of recognition has been given to the maintenance and enhancement of amenity values,[51]

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47 Section 6(g), RMA

48 Section 7(a), RMA

49 Section 7(aa), RMA

50 Section 7(b), RMA

51 Section 7(c), RMA

particularly in residential communities adjacent to the Project, during the assessments undertaken as an integral part of the route selection and alignment design process (for example, route alternatives, noise, air quality, lighting, urban design, landscape and visual, ecology) and in developing the resultant mitigation (refer to the evidence of **Mr Nancekivell**, **Ms Wilkening**, **Ms Borger**, **Mr Gibson**, **Mr Baily**, **Mr Evans** and **Mr Park**.

300.5 The route selection and alignment design process sought to avoid, where practicable, effects on ecosystems within the Project area.[52] Where this was not achievable, appropriate measures were developed to mitigate the effects of the Project on ecosystem values – this is discussed in the evidence of **Mr Fuller**.

300.6 I acknowledge that the quality of the existing environment within the Project area will be permanently altered by the Expressway.[53] However, the proposed route has been selected to minimise the overall impact on this environment, and is aligned within a corridor of sufficient width to accommodate a range of mitigation measures (for example, noise bunds, stormwater treatment and landscaping).

Section 8

301 With respect to section 8, as described in the evidence of **Mr Kamo**, the NZTA has sought to follow the principles of the Treaty of Waitangi in its engagement with iwi throughout the course of the Project; in particular, the principles of partnership, consultation, active protection, good faith and cooperation. The feedback received during this engagement informed decisions made on alignment options, the proposed design and associated mitigation measures. Furthermore, the applicant has commitments with Te Āti Awa ki Whakarongotai and the Takamore Trust to continue to engage with them during construction.

OUTLINE PLAN WAIVER

302 I note that under section 176A of the RMA a further method to manage the effects of a public work, or work to be constructed on designated land is through the preparation and submission of an outline plan to the relevant territorial authority for comment.

303 However, in terms of this Project, a significant level of design detail relating to the proposed works has been intentionally included in the

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52 Section 7(d), RMA

53 Section 7(g), RMA

NoR and accompanying information. The specific plans that have been incorporated into the designation are set out in section 3.5 of the AEE.[54] The requirement to comply with these plans is provided in the conditions. This level of design detail was the result of a significant amount of design work that has been necessary to ensure the proposed programme of works can be undertaken within the anticipated construction timeframe.

304 In view of this, an outline plan waiver is being sought for the majority of the Project in accordance with section 149P(4)(c) of the RMA. In my opinion, this would be appropriate to grant.

305 I note that this request specifically excludes two proposed cycleway/walkway bridges over the proposed Expressway (one in the Poplar Avenue to Raumati Road section and another in the Kāpiti Road to Mazengarb Road section) where the detail of the proposed works are yet to be finalised. I understand that it is NZTA's intention that these works will be addressed at a later stage through the outline plan process. This process will provide the Kāpiti Coast District Council with the formal opportunity to review the detailed design of these bridges and, if it considers it appropriate to do so, request changes to that detailed design. However, given the importance of these crossing to neighbourhood connectivity, their location and form will be determined in liaison with the District Council.

RESPONSE TO SUBMISSIONS

306 For the most part, I have grouped the submissions by topic and respond to key issues that are relevant to my evidence. I also respond specifically to a number of submissions; namely **Greater Wellington Regional Council** (684), the **Department of Conservation** (468) and **Kāpiti Coast District Council** (682), **Takamore Trust** (703), and **Transpower** (178).

Alternative Routes and Methods

307 Some submitters in opposition criticise the assessment of alternatives, stating that alternatives were not considered in sufficient detail or depth or that no justification has been given as to why the proposed alignment is now an appropriate route.[55]

308 The AEE describes the process for considering the alternative routes, sites and methods for achieving the Project objectives (Chapter 9). The evidence of **Mr James** and **Mr Murray** outlines the deficiencies of the existing State Highway and the reasons for

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[54] AEE, Volume 2, Page 47

[55] For example, submitters 456 [Raymond], 572 [ASK], and 598 [Heppenstall]

the development of a new road to expressway standards. **Dr Bentley** outlines the process the Alliance undertook for considering alternative routes. In paragraphs 57 – 64 my evidence, I conclude that I am satisfied that a robust analysis of alternative routes was undertaken and that the most appropriate option has been chosen.

309 The Project Objectives seek to construct and operate a new section of SH1 between Mackays Crossing and Peka Peka to expressway standards. This requires a four-lane divided road, with two lanes of traffic each way, with grade separated interchanges. **Mr Murray** explains why an expressway standard of road is necessary to address the present safety and efficiency deficiencies in the existing State Highway 1 alignment. He also explains why this development is a critical component of upgrading SH1 into/out of Wellington, between Levin and Wellington International Airport, to provide a consistent level of service along this corridor. For the reasons outlined by **Mr Murray**, neither the WLR nor upgrading the existing State Highway by changes to existing intersections and other improvements would achieve the objectives of the Project.

310 While the selected route has some greater constraints in comparison with the other routes considered (particularly in regard to cultural and ecological impacts, many of which were reduced through alignment selection), the route for the Project has marked advantages over the other options in most environmental aspects. It is also considerably more cost effective and requires significantly fewer properties to be acquired and removed. The Project route also has significant advantages in terms of enabling the proposed Expressway to be constructed more quickly and with less disruption to the communities compared with the other route options.

311 Accordingly, I am satisfied that, in overall terms, the proposed designation corridor is superior route for the construction and operation of an Expressway. That is in additional to being satisfied that the statutory test is met, in terms of whether the consideration of alternatives was adequate.

312 In analysing submissions, it is clear that the majority, both in opposition to and in support of the Project, recognise the current problems on the existing SH1 and the need to address the current and future deficiencies of SH1 in this part of the Kāpiti Coast. There are 302 submissions that support, or support in part the Project, and 411 submissions that oppose the Project.

313 Of the submitters that oppose the Project, 72% (296 out of 411) discuss the need for some form of solution to current transportation problems, including a second bridge across the Waikanae River and/or the Western Link Road and/or the upgrading of SH1 in some manner. Therefore, a total of 598 submissions (82% of the total of

725 submissions) therefore specifically acknowledge the existing issues associated with SH1.

314 However, there is a spectrum of views as to whether the proposed Expressway is the most appropriate solution to these deficiencies.

315 Many opposing submissions consider that construction of the Western Link Road would solve the existing problems, either indefinitely or on a short-term basis to allow the existing State Highway to be upgraded in the longer term.[56]

316 That view, however, is considered incorrect by **Mr Murray.** The construction of the WLR would not have fully addressed the deficiencies of SH1, including safety, congestion and inefficient movement of through traffic. Furthermore, the WLR would not have provided a long-term strategic planning solution for SH1, removed the conflicting functions the road currently has to fulfil or ensured the provision of a roading corridor that could satisfactorily enable the level of service expected for a Road of National Significance.

317 A number of submissions expressed their view that the existing SH1 is the best route for an expressway.[57] One submitter recommends an expressway be built along an eastern alignment, stating that "many of the dwellings and capital infrastructure within the properties along the eastern route are set well back from the State Highway, or the proposed eastern route, and would not be materially affected."[58]

318 As part of assessment of alternative routes undertaken by the Alliance, the design engineers identified feasible alignments within the alternative expressway routes, including the alignment of expressways through the urban areas of Paraparaumu and Waikanae, and the location of interchanges that would service these urban areas. These concept designs were undertaken to a sufficient level to enable their potential effects to be identified so that a reasonable comparison with the Project route could be made. The concept designs were developed to represent feasible engineering and roading solutions (particularly in meeting expressway standards), while seeking to minimise the environmental, property and local roading and accessibility impacts. For example, the siting and form of the interchanges at Paraparaumu and Waikanae were developed to have the least impact on these areas. Furthermore, consideration was given to the need to provide access to the

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56 For example, submitters 001 [Knewstubb], 002 [Booth], 004 [Pears], Ellis [005], 229 [Ansell], 441 [Bodnar]

57 For example, submitters 282 [Ainger], 327 [Mountier], and 328 [Sisarich]

58 656 [Anna Carter], pages 9-10

adjacent properties along the routes, which often required the construction of new access roads adjacent an upgraded SH1.

319 Based on these designs, it was concluded that constructing and operating an expressway through Paraparaumu and Waikanae would have significant impacts on the urban environment. For example:

319.1 An overbridge would be necessary to carry the Expressway through the centre of Paraparaumu, as well as long embankments to raise the road up to cross over the NIMT railway line and Kāpiti Road and to form the interchange. This would have created some significant visual, urban design and noise effects that would be difficult to avoid, remedy or mitigate;

319.2 The Expressway would most likely have to be trenched through the Waikanae town centre to provide adequate noise attenuation for the retail and other properties along this section of SH1; and

319.3 To provide access to properties adjacent to the Expressway within the Paraparaumu and Waikanae town centres, many more additional properties would need to be acquired to enable the construction of new or altered local roads, including residential properties along SH1 and commercial properties within Paraparaumu and Waikanae town centres.

320 These effects were acknowledged in some submissions.[59]

321 There were contrasting views in the submissions about whether the route of the proposed Expressway is contrary to good urban planning.

322 Some considered that the route is contrary to good urban planning.[60] One submitter considers that the proposed Expressway "relegates the Kāpiti Coast as a corridor with little regard to Kāpiti Coast as a destination and place to live and work".[61] Another submitter considers that it is not good planning to sever a community into three parts,[62] or to remove the State highway from the periphery to the middle.[63]

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59 For example, 639 [Halliday]

60 For example, submitters 571 [Hurst], 617 [Baldwin], and 656 [Carter]

61 Submitter 293 [Anderton and Abigail], page 5 supporting documentation

62 Submitter 382 [Aregger]

63 For example, submitters 673 [Hinkley] and 346 [Downie]

323 I note that several submissions in support of the applications refer to the presence of the long designated corridor for roading.[64] The Automobile Association notes that the proposed Expressway is likely to be in use for the next 50 or 100 years, and considers that the optimum route has been selected.[65] Another submitter states that the Project route "represents the best choice as a corridor in which to construct an appropriately sized, limited-access, route with grade-separated intersections to serve the region". This submitter considers that "upgrading the existing highway route to the same standard would require substantially more intrusions into residential and commercial areas and with greater loss of property."[66]

324 The submission from the Kāpiti Coast Chamber of Commerce (665) addresses the alternatives, contending that:

> *Unlike Otaki and Levin to the north, there is no viable way of 'by-passing' Kapiti and thus the road must go through somewhere and this route has been identified, after extensive consultation, in the NZTA proposal. Upgrading the current highway to the needed standards would result in far more cost (financial and social) than using the planned 'sandhills' route. The majority of the planned new route was of course allowed for many decades ago in the planning and growth of Kapiti.* (Page 2)

325 I do not agree with those submitters who consider that the current State highway route is on the periphery of the Kāpiti urban area. A GIS analysis indicates that there are 2159 properties east of SH1 between MacKays Crossing and Peka Peka, most of which are in the urban areas of Paraparaumu and Waikanae. In my opinion, the true eastern periphery of the urban area would be the foothills of the Tararua Ranges, up against which the urban areas have developed. While options for a route through the hills were considered at the earliest stage, they were discarded because of the significant construction costs and the separation from the economic activity of the district.

326 As the urban area has developed across almost the full extent of the narrow coastal plain, I would agree with the Kāpiti Coast Chamber of Commerce that it is not practicably feasible to locate the proposed Expressway outside the urban area. The urban area has developed somewhat unusually in that it has grown both inland from the original beach settlements and seawards from the railway centred towns. The pattern of development has occurred on either side of a long established roading corridor, and to that end, the

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64 Submitters 197, 208 and 276

65 Submitter 266

66 Submitter 473 [Page]

proposed Expressway would be consistent with the historic configuration of urban planning in this part of the District.

Specific Alignment and Design Issues

327 Some submissions expressed concerns about specific alignment decisions: in particular, the southern end between Raumati Road and its connection with the existing State highway along the 'Raumati Straight' (north of Mackays Crossing); and the alignment through the Takamore area.

Southern Connection

328 A number of submitters, including residents in the southern part of the route, expressed concerns with the alignment of the Expressway in this vicinity.[67] These submitters raise the following issues:

328.1 That a disproportionate weight was given to the natural environment as opposed to people;

328.2 That the better route would be through Queen Elizabeth Park; and

328.3 That inadequate weight given to the loss of residential properties.

329 However, I note strong support for the proposed alignment of the Expressway to the north of Leinster Avenue was received from the Raumati South Residents' Association [707] which considers that the alignment "helps reduce severance for the local communities, protects valuable indigenous systems north of Poplar Avenue and avoids unacceptable effects on Queen Elizabeth Park" (page 15).

330 As explained in the evidence of **Dr Bentley**, the alternative alignment assessment for the southern end of the proposed Expressway considered a range of matters, including the effect of requiring one commercial and 28 residential properties and the cost and time required to acquire these properties. The MCA process concluded that, in overall terms, the alignment north of Leinster Avenue was preferable to the principal alternative alignment to the west of Leinster Avenue and through Queen Elizabeth Park, in that the latter option would have:

330.1 Physically separated the Leinster Avenue neighbourhood from the remainder of the Raumati South community and its local schools, preventing future opportunities for further connections between these neighbourhoods;

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[67] These include 230 [Fourway's Enterprises Limited], 437 [Pritchard], 487 [Sijbrant], 542 [Highway Occupants Group], 609 [Benge], 622 [Lindsay], 624 [Kāpiti Coast Grey Power]; 650 [Brown], and 655 [MacKay and Flath]

330.2 Had significantly greater visual effects, including on Queen Elizabeth Park, particularly in terms of the required interchange at Poplar Avenue;

330.3 Destroyed, or severely impacted on, ecologically important wetlands, largely unmodified dunes, and regenerating indigenous vegetation (section 6 RMA matters);

330.4 Greater impact on Queen Elizabeth Park, in direct land loss and in isolating the northeast corner; and

330.5 Presented greater risks to archaeological and cultural values, because of the undeveloped state of both Queen Elizabeth Park and the former designation corridor (section 6 matters).

331 From an RMA perspective, I am satisfied that sufficient and robust consideration as given to alternative alignment options at the southern end, and that, in overall terms, the most appropriate alignment was selected.

Takamore Alignment

332 The submission from the Takamore Trust expressed opposition to the decision to follow a "western option" road alignment.[68] This refers to the two principal options that were considered through this part of the route after other options were discarded: the western option being the alignment chosen, and an eastern option that went through the Kauri and Puriri Road neighbourhood.[69]

333 The submission from the New Zealand Historic Places Trust (NZHPT) [647] opposes this section of the proposed Expressway. The NZHPT question the MCA process used for the two alignment options in respect of the weight given to cost and property impacts compared with cultural values:

> *NZHPT questions if a more balanced approach to positive and negative effects would deliver similar outcomes, without severely compromising cultural heritage values* [page 4]

334 As **Dr Bentley** sets out in his evidence,[70] the options for this part of the Expressway were carefully considered and consulted on. While the MCA process indicated a slight preference for the eastern option (primarily due to cultural impact), the difference was not considered sufficient to outweigh its disadvantages, which included not only the greater property acquisition requirements, but also the impact on

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68 Submission 703, Supporting Documentation A, page 2

69 Including one that generally following the existing WLR designation and more easterly options that went through residential areas of Waikanae

70 Bentley evidence-in-chief, paragraphs 38 to 43

the amenity values of a greater number of residences in the Greenaway and Te Moana Road neighbourhood. Furthermore the entire area between the Waikanae River and Te Moana Road has a long history of occupation and cultural significance, and it would not possible to avoid having some effect on these values.

335 The chosen western alignment avoids directly affecting the urupā, Maketu tree and waipuna (spring); it also only directly affects a small portion of the registered wāhi tapu. Within this portion of land lies the Kapuni High Pressure gas pipeline and a formed access road.

336 From an RMA perspective, I am satisfied that sufficient and robust consideration was given to alternative alignment options through the Takamore area, and that, in overall terms, the most appropriate alignment was selected.

Peka Peka Interchange

337 A number of submissions expressed concern about the proposed partial interchange at Peka Peka because it would not provide full connectivity on and off the proposed Expressway in both directions.[71] The reasoning for choosing a partial interchange at Peka Peka is explained in the evidence of **Mr Nancekivell** and **Mr Baily**. I can confirm that the option of a full interchange was fully considered, but was rejected because:

337.1 The costs of building a full interchange in this location outweighed the benefits relative to the amount of traffic that would use this interchange; and

337.2 The presence of a full interchange would be contrary to District Plan policies of managing urban growth further north than the Waikanae North urban growth area in that it would create a development pressure node with the attendant requirements for public infrastructure.

Alternative Methods

338 Some submitters sought that greater consideration be given to the use of public transport or expressed concern about the impact building the proposed Expressway would have on public transport.[72]

339 In respect of the Expressway, the alternatives considered by the NZTA are those that are within its powers to undertake and that will assist it to achieve its Project Objectives. This means that, for

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[71] Submitters 243 [Arthur Bills Resettlement Trust], 361 [Kane], 457 [Red House Cafe Te Horo], 476 [Haines], 618 [Penray Gardens]

[72] For example, submitters 441 [Public Transport Voice] and 537 [Generation Zero]

example, improvements in public transport between Wellington City and the Kāpiti Coast were not considered as an alternative in relation to this project, as the provision of public transport is outside the scope of NZTA's statutory powers under the Land Transport Management Act 2003 (LTMA) and the Government Roading Powers Act 1989. However, the potential impacts that the Project may have on public transport for travelling in to or out of, as well as within, the Project area have been considered, and are addressed in the evidence of **Mr Murray**.

Assessment of Effects on the Environment

340 One submitter contends that the "environmental effects mitigation measures is very general, lacks credibility and would appear to be a long way short of international best practice information.[73] Another submitter contends that there was an inadequate cumulative effects assessment.[74]

341 In my experience, the level of information provided in the application is comprehensive and is in accordance with best practice, having regard to the scale of the Project and its effects, including cumulative effects. The proposed conditions of the designation and resource consents are intended to ensure that the management of effects achieves the outcomes sought through the course of design and construction.

Construction Management and Conditions

342 A number of submitters sought conditions to those proposed, including:

342.1 A limit on hours of construction;[75]

342.2 Complaints' procedures;[76]

342.3 A prohibition on heavy vehicles close to residential areas during non-daylight hours;[77] and

342.4 Noise buffers and better traffic management plans[78].

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73 Submitter 251 [Mansfield]

74 Submitter 562 [Paekākāriki Community Board]

75 Submitter 624 [Kāpiti Coast Grey Power Association Inc]

76 Submitter 417 [Daniell]

77 Submitter 312 [Schager]

78 Submission 470 [Love]

343 I can confirm that these matters are covered in the proposed conditions, through the requirements for management plans.

344 The submission from the Waikanae Holiday Park Inc sought to have details of management plans to be finalised before the NoR is confirmed.[79] However, as I explained above (paragraphs 98 to 109), the finalisation of management plans needs to occur once the detailed design process is complete to ensure that the Plans are tailored to the final details and construction process.

345 Several submitters expressed concern with the CEMP, including that it contains a lack of detailed solutions and the use of adaptive management.[80] As I have outlined above in paragraphs 126 – 129, the CEMP provides the overarching framework for the suite of more detailed management plans. In paragraphs 83 to 88, I explain that the use of adaptive management is a recognised method for managing development where there is a degree of uncertainty about the exact nature and extent of adverse effects that may occur, while ensuring that the environmental bottom-line is not compromised.

346 The Kāpiti Coast District Council submission, which I address separately below, sought a wide range of conditions.[81]

Property Values

347 Many submitters referred to the potential impact of the proposed Expressway on property values, particularly for those immediately adjacent to the road.[82] One submitter considers that it is inequitable that the costs are borne by those living near the proposed Expressway.[83] The impact on property values is addressed in the evidence of **Mr Copeland**.

348 Individual property values are not considered to be an effect under the RMA, but rather are, to a degree, a reflection of other effects, both adverse and positive. However, a wide range of factors can affect property values and thus they do not necessarily represent a good indicator of environmental effects. From a planning perspective, it is preferable to ensure that adequate consideration is given to the mitigation of effects along the route of the proposed Expressway so that the amenity values for residences near the road are maintained to an acceptable level, recognising that some change to amenity values from those presently experienced will occur.

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79 Submission 477 [Waikanae Holiday Park Inc], page 24

80 Submissions 309 [Pomare] and 648 [Simmons]

81 Submission 682 [Kāpiti Coast District Council]

82 For example, submitters 261 [Dearden] and 267 [Waterson]

83 Submission 529 [Weber]

Statutory Assessment – Part 2 Assessment

349 Many of the submitters opposing the Project contend that it is contrary to Part 2 of the RMA,[84] including that:

349.1 Because a more appropriate solution could have been designed [i.e. the Western Link Road], the Project does not enable the community's wellbeing;[85]

349.2 The Project fails to improve our economic wellbeing and improve safety;[86]

349.3 The Project beaches section 6 Matters of National Importance;[87]

349.4 It is contrary to the maintenance and enhancement of amenity values under section 7;[88]

349.5 The Project would result in the loss of nationally significant wetlands.[89]

350 A good summary of the issues raised in a number of submissions is provided in submission 611, which states that:

1. *It will have significant impacts on the natural character of the rivers and wetlands that it destroys, modifies or adjoins*

2. *It will destroy or severely modify some of the most significant remaining dune landforms of the area*

3. *All the ecosystems along the route are national priorities, because the natural vegetation of the Kapiti coastal dune and swale system has been so severely reduced and modified. Even those areas that are in very poor condition (e.g. now covered in gorse rather than native vegetation) are valuable because of their potential for restoration, and because their soils are probably now the sole remaining repository of part of the invertebrate fauna of the area.*

4. *The Project will have effects on recreational activities, including access to waterbodies*

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84 For example, submitters 607 [Saint], 340 [Te Ra School], 611 [Rational Transport Society], 649 [Nisbet], and 656 [Carter]

85 Submitter 441 [Bodnar]

86 Submitter 340 [Te Ra School]

87 Submitter 297 [Higgott]

88 For example, submitter 607 [Saint]

89 Submission 669 [Begovich]

5. The Project impacts on wahi tapu sites, including an urupa

The Project is contrary to a number of provisions in section 7 of the Act, including because it is an inefficient use of resources and will reduce the efficiency of the transport network, will reduce the benefits to be derived from the renewable energy-operated rail network, because it will increase carbon emissions from transport, because it affects kaitiakitanga, because it will reduce the quality of the environment, because it will significantly affect amenity values, and because it will destroy the intrinsic values of the ecosystems within the footprint of the road and associated sites.[90]

351 I have reviewed the Project against the purpose and principles of the Act under Part 2, and I am satisfied that the Project is consistent with the sustainable management of natural and physical resources under the RMA for the reasons I outlined above (paragraphs 292 to 298). Specifically:

351.1 The Project will enable the economic and social wellbeing of people and communities and their health and safety by improving the resilience of the transport network, improving local and regional accessibility and connectivity, reducing the likelihood of vehicle crashes and improving freight movement and travel time reliability – in turn, these improvements are anticipated to generate economic, transportation, growth and accessibility benefits;

351.2 The route of the Project does not affect any areas of high natural character except for that part of the Waikanae River – given that this point of the River has long been identified as the crossing point of a major future road, the Project would not be an inappropriate development;

351.3 While the Project will affect some of the remaining dunes, the alignment of the proposed Expressway was, in part, selected to reduce this impact (for example, by avoiding the large dunes in Raumati South and Queen Elizabeth Park);

351.4 The alignment avoids all significant areas of indigenous vegetation and the proposed level of ecological mitigation and restoration is anticipated to result in an overall improvement to the biodiversity of the area;

351.5 The Project will maintain all existing public access to and along the coastal marine area, lakes, and rivers, and the proposed walkway/cycleway will enhanced connections to the existing network of public access;

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[90] Submission 611 [Rational Transport Society], pages 3-4

351.6 It is acknowledged that, while the proposed Expressway would be located outside the urupā, some adverse effects on the cultural values of the wāhi tapu and the wider cultural precinct would occur – the NZTA is proposing a suite of mitigation measures to mitigate these effects, in consultation with the Takamore Trust as kaitiaki of the area;

351.7 Issues raised in relation to section 6 and section 7 matters have been addressed in the relevant expert evidence,[91] and in my opinion, the Project is consistent with the relevant matters for the reasons set out in paragraph 299 above.

352 The submission from the NZHPT [647] states that it is not clear whether the application or the proposed mitigation recognise that wāhi tapu sites are historic heritage as defined in the RMA and need to considered under both section 6(e) and (f). I do not agree, as the statutory assessment in Chapter 35 of the AEE refers to the mitigation proposed in the Takamore Wāhi Tapu Area under section 6(e) and in regard to the protection of historic heritage under section 6(f).[92]

Statutory Assessment – Regional Policies

353 The submission from the Greater Wellington Regional Council [684] does not raise any specific matters pertaining to regional policies and plans.

354 The NZHPT [647] states that the Project is contrary to Wellington Regional Policy Statement Objective 15 and Policy 45 in that it contends the proposed Expressway would be an inappropriate modification of historic heritage values.

355 Chapter 35 of the AEE addresses Policy 45. Policy 45 sets a number of matters for consent authorities to consider in determining whether an activity that may affect a place, site or area with historic heritage value is inappropriate.[93] I can confirm that these matters informed the decision-making process in relation to considering the effects of the proposed Expressway relative to other alignment options. In my opinion, the proposed Expressway is not an inappropriate development in respect of the effects it will have on the historic heritage values of the Takamore area, given the limited alignment options in this part of the route, the relative effects of the proposed alignment compared with other alignment options, the selection of an alignment that avoids directly affecting sites of

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91 **Mr Murray**, **Mr Kamo**, **Mr Nancekivell**, **Ms Wilkening**, **Ms Borger**, **Mr Gibson**, **Mr Baily**, **Mr Evans**, **Mr Fuller** and **Mr Park**.

92 AEE, Volume 2, page 760

93 Ibid, page 718

known cultural significance, and the proposed extent of mitigation proposed.

Statutory Assessment – District Plan Policies

356 A number of submitters consider that the Project is contrary to the Kāpiti Coast District Plan.[94]

357 For the reasons I set out in paragraphs 265 to 269, which draw on the more detailed analysis in Chapter 35 of the AEE, in my opinion, the Project is generally not contrary to the objectives and policies of the Kāpiti Coast District Plan.

358 I would highlight that one purpose of designations is to provide for a public work that is not necessarily provided for or anticipated by a District Plan, and therefore, a NoR need not be fully consistent with the Plan's objectives and policies.

Transportation Policies and Strategies

359 Several submissions considered the Project was contrary to a number of transportation strategies. One submitter considered the Project to be inconsistent with the NZTA's Urban and Landscape Framework, the Kāpiti Coast District Council's Cycling, Walking, and Bridleways and Sustainable Transport Strategies, and the Greater Wellington Regional Council Cycling Strategy.[95] Another stated that the predicted loss of public transport patronage is contrary to Wellington Regional Land Transport Strategy (WRLTS).[96]

360 In his evidence, **Mr Baily** addresses the specific issues in regard to the effects of the Project in relation to cycling. The Project was assessed against the relevant transportation policies and strategies as 'other matters' in section 35.14 of the Statutory Assessment chapter of the AEE.[97] In my opinion, the Project is consistent with the provisions of the relevant transportation policies and strategies. The Greater Wellington Regional Council Cycling Strategy (2008) was not specifically assessed as part of the AEE, but in my opinion, the Project is consistent with its broad objectives and actions, which include improving the cycling network (including on and off-road cycling paths, and shared paths), and providing for cycling in significant development proposals.

361 In regard to the WRLTS, the current Strategy for 2010 to 2040 includes the Wellington RoNS projects. The implementation of the

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94 For example, submitters 566 [Houston and Lord], 598 [Heppenstall], 404 [MacKay], 505 [Save Kāpiti]

95 Submitter 601 [Kāpiti Cycling Inc]

96 Submitter 537 [Generation Zero]

97 AEE, Volume 2, Chapter 35, pages 745 to 755

Strategy is through a series of Corridor Plans that set out an integrated package of transportation projects, including roading and public transport. The latest Western Corridor Plan (2012), which covers the transport corridor between Ngauranga to Ōtaki, was adopted by the Regional Transport Committee on 15 August 2012, and incorporates the Wellington Road of National Significance (RoNS) as a priority for investment.

Kāpiti Coast District Council

362 The submission from the **Kāpiti Coast District Council** (682), which supports the Project, identifies a range of outcomes to address the Council's outstanding concerns regarding the Project. To achieve these outcomes, the District Council is seeking a wide range of conditions, many of which have been addressed in the evidence of the relevant expert witnesses.

363 A number of the outcomes sought relate to Project agreements that the NZTA has since resolved with the District Council – namely:

363.1 SH1 revocation agreement and process;

363.2 East/west connectivity and concept crossing plans; and

363.3 The use of OGPA[98] for noise attenuation.

364 There are also draft agreements in relation to the proposed Kāpiti water Project and to the maintenance of the proposed cycleway through Queen Elizabeth Park, both of which are anticipated to be signed by the parties in the next few months. Once all of the agreements are signed, it would be inappropriate to seek conditions to the same effect.

365 It is anticipated that discussions will be held with the District Council over those outcomes for which conditions may be appropriate to address the Council's concerns.

366 However, there are a number of specific matters that I address.

367 The last section of the District Council's submission (pages 47-49) addresses the NZTA's assessment of planning matters.

368 In paragraph 251, the District Council submission states that the consistency of the proposal with the proposed Wellington Regional Policy Statement (PWRPS) needs reconsideration because there is currently insufficient certainty about traffic effects, noise effects, social and economic effects. In respect of the assessment of regional form and function (Section 35.7.5.1of the Statutory

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[98] Open Graded Porous Asphalt, a form of road seal used for traffic noise attenuation

Assessment, AEE), I am satisfied that sufficient information was available to enable an assessment to be undertaken in respect of the Proposed Wellington Regional Policy Statement policies on regional form and functioning. Further information on traffic effects, noise effects, social and economic effects are provided in the evidence of **Mr Murray**, **Ms Wilkening**, **Ms Meade Rose**, and **Mr Copeland**, which confirms my earlier conclusions in respect of these matters.

369 In paragraph 253, the KCDC submission considers the statutory assessment discounts the effects of the proposed Expressway on the Waikanae River because there is an existing designation across the River for the WLR. The Statutory Assessment acknowledges that this corridor is identified as an outstanding natural landscape in the Kāpiti Coast District Plan,[99] and as a water body with regionally important amenity and recreational values.[100] The assessment recognises that the bridging of the River by the proposed Expressway will adversely affect amenity values and recreational values of this section of the River without discounting any effects. While it does acknowledge that this part of the river corridor has long been identified as the bridging point of a major road, the assessment notes the bridge has been designed to minimise its presence and obtrusiveness in the river corridor, and proposed planting will help to soften its visual impact. **Mr Evans** addresses this in further detail in his evidence, including the need for additional planting.

370 In regard to the Kāpiti Coast District Plan, paragraph 254 of the submission states that the assessment "fails to consider all the relevant objectives and policies of the plan". The Kāpiti Coast District Council (KCDC) submitted that a full assessment of the Project against the objectives and policies in the plan needs to be undertaken in a considered and robust manner prior to a decision being reached on the NoR.

371 The submission does not identify which objectives and policies have not been assessed. However, in response, I have reviewed the Key Issues Report prepared by KCDC and I have analysed the breadth of the assessment within the statutory assessment and the broader AEE with the relevant objectives and policies in the District Plan. I would first emphasise that the focus of the statutory assessment within section 35.13.2 was to highlight the key points that emerged from my overall assessment (refer page 741 of the AEE). In conclusion, I note that while a few objectives and policies have not been specifically identified and assessed in the statutory

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99 AEE, Section 35.13.2, page 740

100 AEE, Section 35.8.4, page 729

assessment, I am satisfied that the principal provisions were identified and assessed and the key conclusions given in Chapter 35.

372 Based on my review, I would also make the following observations:

372.1 Virtually all the relevant objectives and policies cited in the KCDC Issues Report were identified in Technical Report 2. The most obvious omission is the objectives and policies relating to the Industrial/Service Zone but, as the Council itself noted in the Issues Report, the proposed expressway affects only a small part of the Industrial Zone (the front of two properties near the Kāpiti Road interchange);

372.2 Although the narrative associated with the assessment of District Plan provisions on pages 741-745 of the AEE does not directly identify the relevant objectives and policies in every circumstance, in many instances there is indirect reference to these provisions contained within this narrative or they are addressed in relevant AEE documentation. For example:

(a) Although the ecology related narrative in bullet point 2 on pg. 742 of the AEE doesn't make specific reference to Objective 1, the first sentence of this bullet closely follows the wording of the objective. Specific reference is made in this narrative to associated Policies 4 & 5 and Policies 8-10, but it excludes direct reference to Policies 1, 2, 6, 7, 11 & 12. However, as Policies 1, 2, 6 & 7 are predominantly directed towards the protection and management of the ecology of the district this intent is indirectly reflected in the second sentence of this bullet where it states that 'the associated policies provide for the avoidance, mitigation and remediation of adverse effects on the natural environment';

(b) Although landscape related Policies 3 and 4 are not directly referred to in bullet point 1 on pg.742 of the AEE they are indirectly addressed through the reference to Rural Policy C.2.1.2 and further reference to the Ecological and Landscape Management Plans. They are also identified in *Attachment 7.1 – Statutory Planning Context* of Technical Report 7.

373 Having critically reviewed the assessment of the relevant objectives and policies contained in the KCDC District Plan, it is my opinion that I undertook a thorough and considered assessment of these provisions, when viewing the AEE as a whole and see no reason to alter my overall conclusions regarding the Project in respect of the District Plan.

374 In paragraph 255, the Council's submission expressed concern about the adequacy of the assessment against Part 2 of the Act, as the Council considers that the technical assessment do not, in some cases, adequately address a number of social, economic and environmental effects. The Council contends that further assessment needs to be undertaken to be able to assess whether the local adverse effects have been addressed sufficiently to achieve sustainable management. In particular, the submission states that the assessment:

374.1 Does not consider the town centres such as Waikanae to be a physical resource;

374.2 Does not acknowledge the footprint of the road will use up a significant area of land and soils, including some highly versatile soils; and

374.3 In terms of water, only focuses on water quality.

375 In regard to the latter contention, the submission states that "the water quality effects are at best neutral rather than positive as suggested in the assessment" (page 48), but does not provide any expert evidence to support this view.

376 In response, I am satisfied that the technical assessments provided sufficient information to undertake a statutory assessment against the purpose and principles of the RMA. However, the concerns of the District Council are addressed by the relevant expert witness for the NZTA. In regard to the three specific matters above:

376.1 While the statutory assessment did not explicitly refer to the town centres as physical resource, the focus of the assessment was on whether the proposed Expressway would adversely affect their vitality and vibrancy, and therefore their long-term sustainable physical resource. The statutory assessment in several places considered whether the viability and vibrancy of the Paraparaumu and Waikanae town centres as a whole would be adversely affected.[101]

376.2 While the statutory assessment did consider soils in relation to section 5 of the RMA,[102] the assessment did not explicitly address the loss of productive soils. I acknowledge that the construction of the proposed Expressway will remove the land underneath from agricultural production; however, only a small proportion of the route is currently used for productive purposes, and in broader terms the loss of productive soils

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[101] AEE, pages 722-723, 750-751, 753, and 755

[102] AEE, page 759

would be minor. In my opinion, the absence of this assessment does not substantially affect my overall conclusions in regard to Part 2.

376.3 In regard to water quality, the conclusion in the statutory assessment was based on the conclusions of the contaminant load assessment, which found that "the proposed Expressway in 2031 is likely to lead to an overall improvement in contaminant loads ...discharging to the receiving environment from most catchments modelled relative to the existing situation".[103] I regard this as a positive rather than a neutral outcome, and my assessment against Part 2 reflects that conclusion. In respect of water resources, the technical assessments conclude that the groundwater resources and hydrological systems of the District would be unaffected by the Project. Therefore the life supporting capacity of the District's water resources would be protected, as would their current capacity to meet the reasonably foreseeable needs of future generations (section 5(2)).

377 Paragraph 256 of the KCDC submission notes that the assessment assumes that the route is not within the coastal environment, and asserts that this is inconsistent with research commissioned by the Council. In particular, the District Council states that the assessment did not address areas of high natural character in the coastal environment.

378 These concerns are addressed in the evidence of **Mr Evans** and **Mr Fuller**, who consider that the route is not within the coastal environment. I note that the research referred to in the KCDC submission is not publicly available and has not undergone any consultation. Furthermore, none of the route has been identified in any operative District or Regional Plan or Regional Policy Statement as being in the coastal environment. The Department of Conservation submission [468] states that "the proposal may also be contrary to the New Zealand Coastal Policy Statement in particular Policies 3, 11 and 13",[104] but does not offer an explanation. I note that the statutory assessment in Chapter 35 AEE addresses Policy 13. The GWRC [684], responsible for administering the Regional Coastal Plan, has not raised this as an issue.

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103 Technical Report 25, page 1

104 Policy 3 is in regard to 1 adopting a precautionary approach towards proposed activities whose effects on the coastal environment are uncertain, unknown, or little understood; Policy 11 is in regard to the protection of protect indigenous biological diversity in the coastal environment; and Policy 13 is in regard to the preservation of the natural character of the coastal environment and to protect it from inappropriate subdivision, use, and development

379 Finally, under the assessment of planning matters, the KCDC submission raises the concern that the use of the term "in so far as practicable" in relation to section 6 matters leaves doubt as to whether the preservation or protection of section 6 matters will be achieved. In response, I have reviewed Chapter 35 in respect of the the use of the term "insofar as practicable" in reference to section 6 matters, and identified only four matters points where this has been applied, all of which relate to how the alignment selection process sought to avoid insofar as practicable:

379.1 Built structures of historic heritage value and areas of high archaeological potential;[105]

379.2 Significant ecological areas including wetlands;[106]

379.3 Streams and wetlands with high natural character;[107] and

379.4 Ecosystems.[108]

380 The assessment concludes that the alignment of the proposed Expressway does generally manage to achieve these outcomes, and where full avoidance was not possible, mitigation is proposed, with the overall conclusion that the Project is consistent with the relevant section 6 matters. In review, I am satisfied that the Project is consistent with Part 2.

Department of Conservation

381 The submission from the **Department of Conservation** (468) raises a concern about the adequacy of the conditions and management plans for wetland monitoring, concluding that the Project *may* be contrary to RMA National Policy Statement on Freshwater Management Objectives A1 and A2. The Department seeks a number of conditions or changes to conditions to address its concerns.

382 These conditions are discussed in the evidence of **Mr Fuller**, who supports all of the changes except for the establishment of an Independent Review Panel. In that respect, I would concur with **Mr Fuller** in that there appears to be no necessity for such a Panel, as, in my experience, the Greater Wellington Regional Council has the expertise and experience necessary to address the construction

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105 AEE, Chapter 35, page 718

106 Ibid, pages 742 and 760

107 Ibid, page 760

108 Ibid, page 760

management and monitoring requirements of a Project of this nature.

Greater Wellington Regional Council

383 The submission of the **GWRC** Submission [684] seeks to obtain further information on a number of matters. The questions the Council raises in its submission are addressed in the evidence of **Dr Keesing**, **Mr Park** and **Mr Fuller**, who, after discussion with the Regional Council, are proposing a number of additional conditions to address the Councils concerns. I have reviewed the conditions, and can support their inclusion.

Takamore Trust

384 The submission from the **Takamore Trust** [703] outlines its opposition to the selection of the western alignment through the Takamore area, citing a number of reasons as follows:

- *The Notice of requirement and associated resource consents do not meet the principles of sustainable management under the Resource Management Act.*
- *There are significant adverse effects on the environment including historical, cultural and archaeological values, which will not be avoided, remedied or mitigated by the proposal.*
- *New Zealand Transport Agency, as a Crown entity, has failed to take into account the principles of the Treaty of Waitangi.*
- *The proposal does not recognize and provide for kaitiakitanga, and Takamore Trust does not regard consultation as meeting that requirement.*
- *There are reasonable alternatives which have not been adequately considered by NZTA.*
- *The proposed work is inconsistent with the relevant plans.*[109]

385 The submission, however, does acknowledge the positive working relationship it has had with the NZTA and the Alliance, and the way both parties have been inclusive, constructive, and respectful in its relationship with the Trust, and the high level of sensitivity the NZTA and the Alliance have displayed to the principles of the Takamore Trust.

386 For the reasons I have already given earlier, I am satisfied that the Project meets the principles of sustainable management under the

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[109] Submitter 703 [Takamore Trust], page 2, supporting documentation

RMA, and that significant adverse effects on the environment including historical, cultural and archaeological values, which will not be avoided, will be remedied or mitigated. After considering a range of options, informed by consultation and engagement with the Takamore Trust, the selected alignment has sought to minimise the adverse effects on cultural and historic heritage values. In addition, a range of measures (outlined in paragraph 167) are proposed to mitigate these effects.

Transpower

387 The submission from **Transpower** (178) refers to the presence of the Haywards to Bunnythorpe 220kV A and B transmission lines along part of the route, and notes that the proposed Expressway would cross under these lines just north of Smithfields Road, between towers T233 and T248. The submission notes that there are no specific conditions in the AEE addressing this aspect of the Project, and refers to the obligations under the National Policy Statement on Electricity Transmission (NPSET) for decision-makers to ensure that activities are to be managed in a way that does not compromise the operation and maintenance of the electricity transmission network (Policy 10). The submission seeks the application of a specific condition that would require an Electrical Infrastructure Site Development and Construction Management Plan (EISDCMP).

388 Section 35.3 of the AEE refers to the NPSET, including Policy 10, and notes that:

> *Any changes that may be required to the line in this section to ensure the continued safety and capacity of the line are anticipated to be minor (for example, raising the height of conductors), and will occur prior to the construction of the proposed Expressway. This work would be undertaken in liaison with, and with the agreement of Transpower.*

389 It was envisaged that the management of construction and operation of the proposed Expressway in the vicinity of the 220kV transmission lines would be subject to the Network Utility Management Plan (NUMP) required under designation conditions DC.52 and 53. The provisions of the NUMP would be developed in liaison with and with the agreement of the relevant network utility operators, including Transpower. However, a more specific condition to address all work conducted under or in the immediate vicinity of the transmission lines (including groundwork and planting) would assist in ensuring clarity over the scope and outcomes.

Robert John Schofield
7 September 2012