



MacKays to Peka Peka

Guide to the lodgement documentation



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1 Contents and structure of the lodgement documentation

The lodgement documentation for the MacKays to Peka Peka Project is made up of five volumes and is structured as follows:

- Volume 1: Resource Management Act 1991 forms
- Volume 2: Assessment of Environmental Effects report
- Volume 3: Technical reports and supporting documents
- Volume 4: Management Plans
- Volume 5: Plan Set

A full list of the contents of Volumes 1 - 5 is contained as **Attachment 1** to this document.

1.1 Volume 1: Resource Management Act 1991 forms

The forms required under the RMA for the Notice of Requirement (designation) and resource consent applications are contained in Volume 1.

The forms relate to:

- the lodgement of matters with the EPA by the NZTA;
- the Notice of Requirement by the NZTA; and
- applications for resource consent by the NZTA.

In general, the forms provide a reference to where in the lodgement documentation the required information to support the applications is located.

1.2 Volume 2: Assessment of Effects on the Environment Report

This report covers all of the aspects required for the assessment of effects on environment (AEE) that is required to be submitted in support of the NoR and the applications for resource consent. Most of the technical information contained in the AEE report is drawn from technical reports contained in Volume 3, and cross-references to the relevant reports are provided in the AEE where necessary.

The AEE report should also be read in conjunction with the management plans contained in Volume 4 and the plans contained in Volume 5. A cross-reference to relevant plans is provided in the AEE report where necessary.

1.3 Volume 3: Technical reports and supporting documents

Technical reports and supporting documents are contained in Volume 3.

Technical reports cross-reference to specific Management Plans in Volume 4 as necessary. In addition, some reports and management plans should also be read in conjunction with specific plans contained in Volume 5 as follows:

Report / Plan number	Report / Plan name	To be read in conjunction with...	
7	Assessment of landscape and visual effects	Assessment of visual and landscape effects	Figures 1 to 64
		Visual simulations	Figures VS1 to VS16
8	Assessment of lighting effects	Assessment of lighting effects	CV- MF- 700 to CV- MF- 780
15	Assessment of traffic noise effects	Selected mitigation effects (not preferred)	EN- NV- 001 to EN- NV- 094
		Best practicable option assessments	EN- NV- 020 to EN- NV- 094
		Noise level contours	EN- NV- 100 to EN- NV- 117
16	Assessment of construction noise effects	Construction noise hot spots	EN- NV- 320 to EN- NV- 330
18	Assessment of vibration effects	Construction vibration hot spots	EN- NV- 301 to EN- NV- 315
22	Assessment of hydrology and stormwater effects	Main watercourse	CV- SW- 010 to CV- SW- 011
		Flooding extents	CV- SW- 022 to CV- SW- 031
		Rainfall extents	CV- SW- 050 to CV- SW- 052
		Drainage layouts	CV- SW- 100 to CV- SW- 132
		Swales and wetlands	CV- SW- 201 to CV- SW- 212
		Stream diversion and realignments	CV- SW- 231 to CV- SW- 232
		Culvert and bridge arrangement	CV- SW- 303 to CV- SW- 304
Waikanae River bridge	CV- SW- 391 to CV- SW- 394		
23	Assessment of land and groundwater contamination effects	Contamination assessments	GIS- 3320901- 51 to GIS- 3320901- 67
25	Contaminant load assessment	Catchments and existing land use	GIS- 3320901- 59 to GIS- 3320901- 59a
35	Assessment of ground settlement effects	Settlement cross-sections and key sites	GT- SE- 050 to GT- SE- 051
		Estimated settlement	GT- SE- 150 to GT- SE- 161
		Existing services settlement contours	GT- SE- 200 to GT- SE- 232
36	Geotechnical interpretive report	Geotechnical investigations plans	GT- GI- 100 to GT- GI- 111
		Long sections and peat plan	GT- GE- 100 to GT- GE- 111

Report / Plan number	Report / Plan name	To be read in conjunction with...	
F	Construction noise and vibration management plan	Flowcharts	Appendix F.B
H	Erosion and sediment control plan	Erosion and sediment control	CV- CM- 200 to CV- CM- 231
		Site office and pre-cast yard	CV- SP- 234
		Preload conceptual plan	CV- CM- 244
		Peat replacement methodology	CV- CM- 240 to CV- CM- 243
		Stream diversion methodology	CV- CM- 246 to to CV- CM- 247
		USLE catchments	CV- CM- 260 to CV- CM- 270
		USLE slope classes	CV- CM- 272 to CV- CM- 282
		Stone column water management	CV- CM- 245
		ESCP design	CV- CM- 248 to CV- CM- 251
		Waikanae River Bridge Sequencing and Streamworks	CV- CM- 500 to CV- CM- 508
I	Groundwater management plan	Monitoring locations	GT- GW- 100 to GT- GW- 111
J	Settlement effects	Monitoring plans	GT- SE- 320 to GT- SE- 331

Please note:

- Plans that are appendices of Technical Reports 21, 35 and 36 are contained within both the Technical Report in Volume 3 and in Volume 5: Plan Set for readability purposes.
- The entire Technical Report 5 and its appendices are contained within Volume 5: Plan Set.

1.4 Volume 4: Management Plans

All of the management plans lodged for the Project are contained in Volume 4.

There are two types of management plans:

- The Construction Environmental Management Plan (CEMP), which is the overarching Management Plan for managing the effects arising from the construction of the Project; and
- Specific construction management plans to address particular effects (such as noise, traffic and ecology) ordered as appendices to the CEMP.

1.5 Volume 5: Plan Set

All of the main plans and drawings are contained in Volume 5 and are referenced by other documents where necessary. Please note, Volume 5 also contains a number of appendices relating to technical reports contained in Volume 3. Volume 5 also contains Technical Report 5, the Urban Design and Landscape Framework.

2 Terminology used

A list of abbreviations used is provided as **Attachment 2** and a glossary of terms used is provided as **Attachment 3**.

2.1 Key terms

Particular attention is drawn to the following key terms used in the documentation:

Term	Meaning
The Project	NZTA's proposal to designate land and obtain resource consents to construct, operate and maintain a section of road between MacKays Crossing and Peka Peka, on the Kāpiti Coast. The road will be constructed to Expressway standards, and become part of State Highway 1.
The proposed Expressway	The proposed 16km four lane MacKays to Peka Peka Expressway with associated local road improvements and connections. The proposed Expressway will pass through the communities of Raumati, Paraparaumu and Waikanae. The proposed Expressway will allow motorists to drive at speeds of up to 100km/h and is designed to be straighter and flatter than other roads. For safety reasons, traffic in each direction is separated by a central barrier or strip of land.
The Alliance	Collaboration of NZTA, Beca, Fletcher Construction, Higgins Group and Kāpiti Coast District Council, supported by Goodmans Contractors, Incite and Boffa Miskell, to design and deliver the Project.

2.2 MacKays to Peka Peka Expressway

Historically, the route of the proposed 'MacKays to Peka Peka Expressway' has been referred to in a number of different ways, including:

- 'Sandhills'; and,
- 'Western Link Road' option.

These terms refer to previous roading proposals/designations that generally follow the same route as the proposed Expressway, and, except in reference to historical background, have **not** been widely used in this set of documents to avoid confusion.

3 Referencing conventions

3.1 Position along the proposed Expressway alignment

The position of features along the proposed Expressway is given as a chainage distance from MacKays Crossing, with MacKays Crossing being chainage 0m and the northern extreme of the proposed Expressway being chainage 18,050m. For example, a feature described as being at chainage 2200m is located approximately 2.2km north of MacKays Crossing.

It should be noted that the southern end of the Project commences at chainage 1900m, as the upgrading of the existing section of State Highway 1 to Expressway standards between Mackays Crossing and chainage 1900m will be done separately to this Project as part of the NZTA's maintenance programme, and will occur fully within the existing designation.

3.2 Sectors of the proposed Expressway alignment

The route of the proposed Expressway has been divided into four Project Sectors which are used to refer to specific lengths of the proposed Expressway route:

Sector number	Sector name	Chainage distance (m)	Length (km)
1	Raumati South	1900 – 4500	2.6
2	Raumati/Paraparaumu	4500 – 8300	3.8
3	Otaihanga/Waikanae	8300 – 12,400	4.1
4	Waikanae North	12,400 – 18,050	5.65

3.3 Hydrological catchments and watersheds affected by the Project

The Project involves works in the following catchments:

- The Whareroa catchment – includes a number of smaller tributaries that discharge into the Whareroa Stream, which discharges to the sea south of Raumati South. The total watershed area is 15.4km²;
- The Wharemauku catchment – includes Drain 7 and the Wharemauku Stream, which discharges to the coast at Raumati Beach. The total watershed area of this catchment is 14.9km²;
- The Waikanae Catchment – includes the Waikanae River and various tributaries that discharge into the River, including the Mazengarb Drain, Wastewater Treatment Plant Drain and the Muaupoko Stream. This catchment has a total watershed area of 149.7km² and discharges to the sea via the Waikanae Estuary;
- The Waimeha Catchment – includes the Waimeha Stream, Ngarara Stream, Ngarara Creek, Kakariki Stream, Smithfield Drain and Paetawa Drain. The catchment has a total watershed of 21.2km² and discharges to the sea at Waikanae Beach. The characteristics of the Ngarara and Kakariki Stream sub-catchments are distinct enough to be differentiated from that of the Waimeha Stream sub-catchment; and,

- The Hadfield Drain/Te Kowhai Stream Catchment – includes Hadfield Drain and Te Kowhai Stream. This catchment has a total watershed of 10.2km² and discharges to the sea at Peka Peka Beach.

The catchments are illustrated in Figure 6.6 of Part D, Chapter 6, Volume 2.

3.4 Referring to properties

Where all or part of a property is required to construct and operate the Project, it is listed in the Land Requirement Schedule (plans **GI- PR- 01 to GI- PR- 18**) and has been assigned a property number. The property numbers, which will be used to refer to a specific property, start at 001 and finish at 210.

Properties not listed on the schedule are referred to by their legal description.

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Attachment 2: List of abbreviations

Abbreviation	Meaning
AADT	Annual average daily traffic (number of vehicles travelling in both directions per twenty-four hours)
AAQG	Ambient air quality guidelines
AEE	Assessment of effects on the environment
AEP	Annual exceedance probability
BCR	Benefit-cost ratio
BoI	Board of Inquiry
BPO	Best practicable option
BS	British Standard
CAQMP	Construction Air Quality Management Plan
CBD	Central Business District
CEMP	Construction Environmental Management Plan
CESCP	Construction-stage Erosion and Sediment Control Plan
CIA	Cultural impact assessment
CMA	Coastal Marine Environment
CNVMP	Construction Noise and Vibration Management Plan
CO	Carbon monoxide
COPTTM	Code of practice for temporary traffic management
CSGMP	Contaminated Soils and Groundwater Management Plan
CTMP	Construction Traffic Management Plan
CWB:	Cycling, Walkways and Bridleways Strategy (KCDC)
dB	Decibels
DHB	District Health Board
DM	Do minimum
DOC	Department of Conservation
E&EA	Engineering and Environmental Assessment
EEM	Economic Evaluation Manual (NZTA)
EIA	Ecological impact assessment
EMP	Ecological Management Plan
EPA	Environmental Protection Authority
ESCP	Erosion and Sediment Control Plan
FFR	Freshwater Fisheries Regulations 1983
GMP	Groundwater (Level) Management Plan
GPR	Ground penetrating radar
GPS	Government Policy Statement on Land Transport Funding 2009/10 – 2018/19
GRPA	Government Roadway Powers Act 1989
GWPNP	Greater Wellington Parks Network Plan
GWRC	Greater Wellington Regional Council
HPA	Historic Places Act 1993
HSMP	Hazardous Substances Management Plan
KCDC	Kāpiti Coast District Council
KCDP	Kāpiti Coast District Plan
km	Kilometre
km/h	Kilometres per hour
kV	Kilovolt

Abbreviation	Meaning
LGA	Local Government Act 2002
LMP	Landscape Management Plan
LTMA	Land Transport Management Act 2003
LTP	Long Term Plan
MfE	Ministry for the Environment
mg/m ³	Milligrams per cubic metre
mm	Millimetre
mm/s	Millimetres per second
MOTSAM	Manual of traffic signs and markings
MoU	Memorandum of understanding
MSE Walls	Mechanically stabilised earth walls
NAASRA	National Association of Australian State Road Authorities
NES	National environmental standard
NES AQ	Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004
NES CSHH	Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011
NES SHDW	Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007
NES ETA	Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009
NIMT	North Island Main Trunk (Railway Line)
NPS	National policy statement
NPSET	National Policy Statement on Electricity Transmission
NPSFM	National Policy Statement for Freshwater Management
NPSIB	(Proposed) National Policy Statement on Indigenous Biodiversity
NO ₂	Nitrogen dioxide
NoR	Notice of requirement for designation
NS	Norwegian Standard
NSHS	National State Highway Strategy
NZAAQG	New Zealand Ambient Air Quality Guidelines
NZCPS	New Zealand Coastal Policy Statement
NZHPT	New Zealand Historic Places Trust
NZS	New Zealand Standard
NZTA	NZ Transport Agency
NZTS	New Zealand Transport Strategy
NZUDP	New Zealand Urban Design Protocol
OGPA	Open graded porous asphalt
PCE	Parliamentary Commissioner for the Environment
PPF	Protected premises and facilities
PPV	Peak particle velocity
PRPS	Proposed Wellington Regional Policy Statement
PWA	Public Works Act 1981
QE Park	Queen Elizabeth Park
RAP	Recommended area for protection
RAQMP	Regional Air Quality Management Plan for the Wellington Region
RCA	Road controlling authority
RCP	Regional Coastal Plan

Abbreviation	Meaning
RDLP	Regional Discharge to Land Plan for Wellington Region
REWMP	Resource Efficiency and Waste Management Plan
RFP	Regional Freshwater Plan for the Wellington Region
RLTS	Regional Land Transport Strategy (GWRC)
RMA	Resource Management Act 1991
ROLDPBEA	Reserves and Other Lands Disposal and Public Bodies Empowering Act 1915
RoNS	Road of National Significance
RP	Route position
RPDL	Regional Plan for Discharges to Land for the Wellington Region
RPS	(Operative) Wellington Regional Policy Statement
RSP	Regional Soil Plan for the Wellington Region
SCMP	Stakeholder Communication Management Plan
SEMP	Settlement Effects Management Plan
SEV	Stream ecological valuation
SH1	State Highway 1
SIA	Social impact assessment
SNA	Significant natural area
SP	Special Purpose
TEP	Transit Environmental Plan
TPH	Total petroleum hydrocarbons
TSP	Total suspended particulates
TSS	Total suspended solids
VMS	Variable message sign
WCMS	Wellington Conservation Management Strategy
WLR	Western Link Road
WHO	World Health Organisation
WRS	Wellington Regional Strategy
WWTP	Waikanae Wastewater Treatment Plant

Attachment 3: Glossary of terms

Term	Meaning
Abutment	An end support of a bridge or similar structure.
Access way	The driveway, walkway or other means of access to and/or from any part of a road by which vehicles and/or pedestrians enter and or leave property.
Alignment	The horizontal or vertical geometric form of the centre line of the carriageway.
Alluvial deposits	Unconsolidated sedimentary deposits laid down by a stream or river.
Amenity values	Defined in section 2 of the RMA as: "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."
Archaeological site	Defined in section 2 of the HPA as: "(a) means - (i) Any land (including an archaeological site); or (ii) Any building or structure (including part of a building or structure); or (iii) Any combination of land and a building or structure; or (iv) any combination of land, buildings or structures, and associated buildings or structures (including any part of those buildings or structures, or associated buildings or structures) that forms a place that is part of the historical and cultural heritage of New Zealand and lies within the territorial limits of New Zealand; and (b) Includes anything that is in or fixed to such land."
Austroroads	The association of Australian and New Zealand road transport and traffic authorities.
Basecourse	The layer of material constituting the uppermost structural element of a pavement, immediately beneath the wearing course; or the graded aggregate that can be used in such a layer.
Bed	Defined in section 2 of the RMA as: "(a) in relation to any river - for the purposes of esplanade reserves, esplanade strips, and subdivision, the space of land which the waters of the river cover at its annual fullest flow without overtopping its banks: in all other cases, the space of land which the waters of the river cover at its fullest flow without overtopping its banks; and (b) in relation to any lake, except a lake controlled by artificial means,— for the purposes of esplanade reserves, esplanade strips, and subdivision, the space of land which the waters of the lake cover at its annual highest level without exceeding its margin: in all other cases, the space of land which the waters of the lake cover at its highest level without exceeding its margin; and (c) in relation to any lake controlled by artificial means, the space of land which the waters of the lake cover at its maximum permitted operating level; and (d) in relation to the sea, the submarine areas covered by the internal waters and the territorial sea."
Benefit-cost ratio	The ratio that compares the benefits accruing to land transport users and the wider community from implementing a project or providing a service, with that project's or service's costs.
Berm	The edge of a road reserve between the kerb or surface water channel and property boundary, exclusive of footpath.

Term	Meaning
Best practicable option	In relation to the discharge of a contaminant or an emission of noise, defined in section 2 of the RMA as: “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.”
Bridge	A structure designed to carry a road or path over an obstacle by spanning it. This includes culverts with a cross-sectional area greater than or equal to 3.4 square metres.
Bund	A mound of earth formed to provide visual and/or acoustic mitigation
Capacity	The maximum number of vehicles that can reasonably be expected to pass a given point on a lane or carriageway in a specified time, usually one hour. It varies with the prevailing traffic and carriageway conditions.
Carriageway	That portion of the road devoted particularly to the use of travelling vehicles, including shoulders.
Centre line	Pavement marking on a road, which delineates opposing traffic flows.
Centreline	The basic line, at or near the centre or axis of a road or other work, from which measurements for setting out or constructing the work can conveniently be made.
Chainage	The distance along a curved or straight survey line from a fixed commencing point.
Channel	The drain which accepts water directly from the pavement.
Chip seal	A wearing course consisting of a layer or layers of chips originally spread onto the pavement over a film of freshly sprayed binder and subsequently rolled into place.
Clear zone	An area adjacent to a road carriageway that is clear of fixed objects and other hazards, providing a recovery zone for vehicles that have left the carriageway.
Collector road	A sub-arterial road which collects and distributes traffic in an area, as well as serving abutting property.
Colluvium	Loose deposits of rock debris accumulated through the action of gravity found at the base of slopes.
Conditions	Conditions placed on a resource consent (pursuant to section 108 of the RMA) or conditions of a designation (pursuant to subsection 171(2)(c) of the RMA).
Construction management plan	A site or project specific plan developed to ensure that appropriate management practices are followed during the construction phase of a project.
Contaminant	Defined in section 2 of the RMA as: “any substance (including gases, odorous compounds, liquids, solids, and micro-organisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy, or heat - (a) when discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or (b) when discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged.”
Contaminated land	Defined in section 2 of the RMA as: “land that has a hazardous substance in or on it that - (a) has significant adverse effects on the environment; or (b) is reasonably likely to have significant adverse effects on the environment.”

Term	Meaning
Cross-section	A vertical section, generally at right-angles to the centreline showing the ground. On drawings it commonly shows the road to be constructed, or as constructed.
Culvert	One or more adjacent pipes or enclosed channels running across and below road formation level having a cross-sectional area less than 3.4 square metres.
Cycle lane	That portion of the carriageway devoted to the use of cycles only and marked accordingly (but which may occasionally be crossed by motor vehicles, turning at intersections or driveways or manoeuvring into parking spaces).
Cycle path	A separately formed path designed specifically for the use of cycles, to which motor vehicles do not have access.
Designation	Defined in section 166 of the RMA as: "a provision made in a district plan to give effect to a requirement made by a requiring authority under section 168 or section 168A or clause 4 of schedule 1."
Design speed	A speed fixed for the design of minimum geometric features of a road.
Design year	The predicted year in which the design traffic volume would be reached.
District plan	Defined in section 43AA of the RMA as: "(a) means an operative plan approved by a territorial authority under Schedule 1; and (b) includes all operative changes to the plan (whether arising from a review or otherwise)."
Divided highway	A road with physically separated carriageways for traffic travelling in opposite directions.
Edge line	A line painted on a road to indicate the outer edge of the traffic lane.
Effect	Defined in section 3 of the RMA as: "(a) Any positive or adverse effect; (b) Any temporary or permanent effect; (c) Any past, present, or future effect; (d) Any cumulative effect which arises over time or in combination with other effects – Regardless of the scale, intensity, duration, or frequency of the effect and also includes – (e) Any potential effect of high probability; and (f) Any potential effect of low probability, which has a high potential impact."
Embankment	A construction work (usually of earth or stone) that raises the ground (or formation) level above the natural surface.
Environment	Defined in section 2 of the RMA and includes: "(a) Ecosystems and their constituent parts, including people and communities; (b) All natural and physical resources; (c) Amenity values; and (d) The social, economic, aesthetic and cultural conditions which affect the matters stated in paragraphs (a) to (c) of this definition or which are affected by those matters."
Environmental management plan	A site or project specific plan developed to ensure that appropriate environmental management practices are followed during the operation of a project.
Estuarine deposits	Unconsolidated sedimentary deposits laid down in an estuary.
Expressway	A road mainly for through traffic, usually dual carriageway, with full or partial control of access. Intersections are generally grade separated.
Footpath	That portion of the road reserve set aside for the use of pedestrians only.
Formation	The surface of the finished earthworks, excluding cut or fill batters.

Term	Meaning
Furniture	A general term to describe features placed on or near the road to improve safety and assist drivers. Furniture includes barriers, guard rails, lighting, parking meters, poles, posts, signs, lights, etc.
Grade separation	The separation of road, rail or other traffic so that crossing movements which would otherwise conflict are at different elevations.
Guideline values	Risk-based values for individual contaminants that are based on various studies. Guideline values are used to evaluate laboratory analytical data from soil and water samples to determine whether additional action is required. Guideline values are typically media-specific and provided for protection of human health and ecological receptors.
Haul	The distance through which material is transported between points of loading and unloading.
Hazardous activities and industries list	A list of activities and industries that are considered likely to cause land contamination resulting from hazardous substance use, storage or disposal.
Historic heritage	Defined in section 2 of the RMA as: “(a) Those natural and physical resources that contribute to an understanding and appreciation of New Zealand’s history and cultures, deriving from any of the following qualities: Archaeological Architectural Cultural Historic Scientific Technological; and (b) Includes: Historic sites, structures, places and areas; Archaeological sites; Sites of significance to Maori, including wāhi tapu; and Surroundings associated with the natural and physical resources.”
Interchange	A grade separation of two or more roads with one or more interconnecting carriageways.
Intersection	A place at which two or more roads cross at grade or with grade separation.
Iwi	Extended kinship group, tribe, nation, people, nationality - often refers to a large group of people descended from a common ancestor.
KiwiRail	KiwiRail is the trading name of the NZ Railways Corporation. There are a number of divisions within KiwiRail, with KiwiRail Network being responsible for railway infrastructure such as tracks, bridges and tunnels. The NZ Railways Corporation is the requiring authority for all railways designations.
LAeq(24h)	Time-average sound level over a twenty-four hour period, measured in dB.
LAeq(1h)	Time-average sound level over a one hour period, measured in dB.
LAFmax	Maximum sound level, measured in dB.
Limited access road	Limited access roads are declared by NZTA under section 88 the Government Roading Powers Act 1989 as a means of controlling access between state highways and adjoining properties. Territorial authorities may also declare limited access roads under section 346A of the Local Government Act 1974.
Local authority	Under section 2 of the LGA, means local authority means a regional council or territorial authority.
Local road	A road (other than a State highway) in the district, and under the control, of a territorial authority, as defined in Section 5 of the Land Transport Management Act 2003.
Loess	Fine grained silt or clay formed by glaciation and transported by wind.
Mana whenua	Territorial rights, power from the land - power associated with possession and occupation of tribal land.

Term	Meaning
Mean high water springs	The average of the levels of each pair of successive high waters during that period of about 24 hours in each semi lutation (approximately every 14 days) when the range of tides is greatest.
Median barrier	A device used on multi-lane roads to keep opposing traffic within their prescribed carriageways.
National environmental standard	A standard prescribed by regulations made under section 43 of the RMA. There are currently five NESs relating to: air quality; sources of human drinking water, telecommunications facilities; assessing and managing contaminants in soil to protect human health; and, electricity transmission.
National policy statement	A statement issued under section 52 of the RMA. Currently only two NPS are in effect: one on Electricity Transmission and one on Freshwater Management.
Noise	Noise may be considered as sound that serves little or no purpose for the exposed persons and is commonly described as 'unwanted sound'.
Notice of requirement for designation	A notice given to a territorial authority (under section 168 of the RMA) or by a territorial authority (under section 168A of the RMA) of a requirement for land, water, subsoil or airspace to be designated.
Outline plan	A plan of the public work, project, or work to be constructed on designated land provided to a territorial authority, pursuant to section 176A of the RMA, prior to the work being undertaken.
Overbridge	Bridge structures that would be required to carry local roads and/or the cycleway/walkway over the proposed Expressway.
Overpass	A grade separation where the traffic passes over an intersecting road or railway.
Pavement	The road structure that is constructed on the subgrade and supports the traffic loading.
Pier	Vertical support structure for a bridge.
PM10	Fine particulate matter with an equivalent diameter of less than 10 micrometres.
Proposed plan	Defined in section 43AAC of the RMA as: "(a) means a proposed plan, a variation to a proposed plan or change, or a change to a plan proposed by a local authority that has been notified under clause 5 of Schedule 1 but has not become operative in terms of clause 20 of Schedule 1; and (b) includes a proposed plan or a change to a plan proposed by a person under Part 2 of Schedule 1 that has been adopted by the local authority under clause 25(2)(a) of Schedule 1."
Ramp	Carriageway within an interchange providing for travel between two arms (legs) of the intersecting roads.
Recommended area for protection	Recommended Area and Protection under the Department of Conservation Protected Natural Areas Programme, which is a process of surveying the whole of New Zealand for areas meriting protection, and of negotiating with landowners to buy or provide other legal protection for the land in question.
Regional Council	Under section 2 of the LGA means a regional council named in Part 1 of Schedule 2: the proposed Expressway project involves land under the administrative jurisdiction of one regional council: the Greater Wellington Regional Council.
Regional plan	Defined in section 43AA of the RMA as: "(a) means an operative plan approved by a regional council under Schedule 1 (including all operative changes to the plan (whether arising from a review or otherwise)); and (b) includes a regional coastal plan."
Regional policy statement	Defined in section 43AA of the RMA as: "(a) an operative regional policy statement approved by a regional council under Schedule 1; and (b) includes all operative changes to the policy statement (whether arising from a review or otherwise)."

Term	Meaning
Requiring authority	Defined in section 166 of the RMA as: “(a) Minister of the Crown; or (b) a local authority; or (c) a network utility operator approved as a requiring authority under section 167” The NZ Transport Agency was approved under section 167 as a requiring authority by Resource Management (Approval of New Zealand Transport Agency as Requiring Authority) Order 1992, notified in the <i>Gazette</i> on 10 December 1992.
Retaining wall	A wall constructed to resist lateral pressure from the adjoining ground or to maintain in position a mass of earth.
Reverse sensitivity	The vulnerability of an established activity to objection from a new sensitive land use.
River	Under section 2 of the RMA, means “a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal)”
Road	An area formed for vehicular traffic to travel on. The term ‘road’ describes the area between kerbs or surface water channels and includes medians, shoulders and parking areas.
Road capacity	Refer to capacity
Road controlling authority	Defined in section 5 of the LTMA as: “in relation to a road, means the Minister, Department of State, Crown entity, State enterprise, or territorial authority that controls the road.”
Road reserve	A legally described area within which facilities such as roads, footpaths and associated features may be constructed and maintained for public travel.
Roundabout	An intersection where all traffic travels in one direction around a central island.
Sector 1	Raumati South: from just south of Poplar Avenue to just north of Raumati Road between chainage 1900m and 4500m
Sector 2	Raumati/Paraparaumu: from north of Raumati Road to north of Mazengarb Road between chainage 4500m and 8300m
Sector 3	Otaihanga/Waikanae: from north of Mazengarb Road to north of Te Moana Road between chainage 8300m and 12,400m
Sector 4	Waikanae North: from north of Te Moana Road to Peka Peka between chainage 12,400m and 18,050m
Sensitive receiver	A receiver that is susceptible to the effects of roads: residential activities, education activities including pre-schools, travellers’ accommodation, hospitals and other health care facilities, and elderly persons’ accommodation.
Shoulder	That portion of the carriageway outside the traffic lanes.
Sound	Sound (pressure) levels are an objective measure of changes in pressure levels that may be heard by humans. Unwanted sound can be considered as noise.
Tangata whenua	Defined in section 2 of the RMA as: “in relation to a particular area, means the iwi, or hapu, that holds mana whenua over that area.”
Territorial authority	Defined in section 5 the LGA as a city or district council listed in Part 2 of Schedule 2 of that Act. The proposed Expressway project involves land under the administrative jurisdiction of one territorial authority: Kāpiti Coast District Council.
Traffic flow	The number of vehicles passing a given point during a specified period of time.
Traffic lane	A portion of the carriageway allotted for the use of a single line of vehicles.
Traffic volume	The number of vehicles flowing in both directions past a particular point in a given time (e.g. vehicles per hour, vehicles per day).

Term	Meaning
Underbridge	Bridge structures that would be required to carry the proposed Expressway over local roads, the cycleway/walkway and watercourses.
Underpass	A grade separation where stock or traffic passes under an intersecting highway or railway. For other non-traffic uses refer subway.
Urupā	Burial ground.
$v_{w,95}$	Statistical maximum weighted velocity, used in the assessment of road-traffic vibration
Vehicles per day	The number of vehicles observed passing a point on a road in both directions for 24 hours.
Wāhi tapu (also referred to as Waahi tapu)	Defined in section 2 of the HPA as: "a place sacred to Maori in the traditional, spiritual, religious, ritual or mythological sense."
Water body	Defined in section 2 of the RMA as: "freshwater in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area."
Water table	The level at which ground water will finally stand in an un-pumped bore hole, well or other depression.
Western Link Road Designation	The KCDC local road designation between Poplar Avenue in Raumati to North Waikanae. The WLR was intended to provide a local alternative to the State Highway for north-south travel in the district.
Wetland	Defined in section 2 of the RMA as: "permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions."