

Noise and Vibration

Sub Plan	Aspect	Phase	Frequency	Location and Plan Reference	Monitoring Comments	Reporting
Construction Noise and Vibration Management Plan	Noise	Routine – Construction	At monthly intervals throughout construction	Sector 1: Residential areas located in Leinster Avenue, Main Road (SH1) and Raumati Road, or any other potentially affected location	Monitoring at random times and locations, not pre-determined, in accordance with: NZS6801:2008 Acoustics – Measurement of Environmental Sound” and NZS 6803:1999 “Acoustics – Construction Noise”.	Submitted to Alliance and KCDC within a week of each survey
				Sector 2: Residential areas located in Raumati Road, Rata Road, Milne Drive, Kāpiti Road, Mazengarb Road, residential areas east of the Expressway between Kāpiti Road and Mazengarb Road, Cheltenham Drive, Oxford Court, or other affected location		
				Sector 3: Residential areas located near the Otaihanga Road bridge and Kauri, Puriri and Te Moana Roads, or any other potentially affected location		
				Sector 4: Adjacent to Ngarara Road bridge, residences at End Farm Road, residential areas in the vicinity of Peka Peka Road, or any other potentially affected location		
		Routine – Construction	Following reasonable noise complaints	At 1 metre from most affected façade of complainants' dwellings, or representative alternative location if access cannot be obtained	Monitoring to be undertaken in accordance with: NZS6801:2008 Acoustics – Measurement of Environmental Sound” and NZS 6803:1999 “Acoustics – Construction Noise”.	Submitted within 3 days of each survey, feedback to complainant within 3 days, held within Alliance office
		Routine – Construction	During critical phases of construction	At 1 metre from façade of most affected assessment positions, or representative alternative location if access cannot be obtained	At onset of known high noise generating activities	Submitted to Alliance and KCDC within a week of each survey
	At onset of those activities determined to require a site specific noise management plan					
				These surveys can be combined with those required at monthly intervals as set out above		
	Vibration	Building Condition Survey	Once prior to construction	All buildings identified as high risk in CNVMP, plus buildings identified by Structural Team (not already included in that list)	To be undertaken by Structural Engineer. Type of building foundations and ground type should be noted	Submitted to Alliance and KCDC within a week of each survey
Routine – Construction		During critical phases of construction	At risk buildings identified in CNVMP	At first use of known high vibration activities (refer CNVMP)	Submitted to Alliance and KCDC within a week of each survey	
				At onset of those activities determined to require a SSVMP		
Routine – Construction	Following reasonable vibration complaints	At complainants' buildings	Monitoring to be undertaken in accordance with German Standard DIN 4150-3:1999	Submitted within 3 days of each survey, feedback to complainant within 3 days, held within Alliance office		

Air Quality

Sub Plan	Aspect	Phase	Frequency	Location and Plan Reference	Monitoring Comments	Reporting
Construction Air Quality Management Plan	Weather	Construction	Daily	Main site office	Check weather forecasts for strong winds and rainfall to plan appropriate dust management respons (7 day forecasts available on www.metsvuv.co.nz)	
			Daily and as conditions change	Main site office	Observe weather conditions, wind via observations and data outputs from weather stations and presence of rain.	
	Dust	Construction	Twice daily	All active construction areas	Inspect land adjacent to the site, construction exits and adjoining roads for the presence of dust deposits.	
			Daily and as conditions change	All active construction areas	Inspect all unsealed surfaces for dampness and to ensure that surface exposure is minimised.	
			Daily and as new activities are commenced	All active construction areas	Inspect dust generating activities To ensure dust emissions are effectively controlled.	
	Odour	Only during active construction in these areas	As required	[Peat excavations]	Check for excessive/unusual odour	
	Vehicle Emissions	Construction	Monthly?	Main site office	Check that all required maintenance has been carried out on construction machinery engines	
	Mitigation	Construction	Weekly	All active construction areas	Inspect watering systems (sprays and water carts) to ensure equipment is maintained and functioning to effectively dampen exposed areas	
			In winds over 5.5 m/s (11 knots or a Beaufort scale number of 3	All active construction areas	Monitor water application rate	
			Weekly and at times of expected high winds	All active construction areas	Inspect stockpiles to ensure enclosure, covering, stabilisation or dampness. Ensure stockpile height is less than 3m or appropriately stabilised.	
			Weekly	Site access and egress points	Check for effective operation of wheelwash/truckwash systems and/or judder bars (if installed)	
	Instrumental Monitoring	Only during active construction in this area	Continuous	End of Leinster Avenue on western edge of construction designation (TBC)	Total Suspended Particulate (TSP)	
		Throughout active construction of project	Continuous	Between Kapiti Road and Mazengarb Avenue on southeastern edge of construction designation (TBC)	Total Suspended Particulate (TSP), wind direction, wind speed and temperature.	
		Only during active works in 55 Rata Road	Continuous	Vicinity of 55 Rata Road on the eastern boundary of the construction footprint	Total Suspended Particulate (TSP); particulate filters analysed for benzopyrene.	

Erosion & Sediment Control

Sub Plan	Aspect	Phase	Frequency	Location and Plan Reference	Monitoring Comments	Reporting
Erosion and Sediment Control Plan	ESCP Generic Monitoring	Pre Construction	Prior to construction activities	Section 5.3.2 of ESCP	Log book with photographic record of discharge points and stream systems to assist with ongoing monitoring and assessment/comparison as part of during construction monitoring	Internal reporting to Alliance
		During Construction	Pre Rain Events	Section 5.3 of ESCP	Weather forecast monitoring (www.metvuw.co.nz) to avoid high risk periods	Internal reporting to Alliance
	ESCP Devices Monitoring	During Construction	During and after rainfall and/or pumping activities	Section 5.3 of ESCP	Visual Assessments. Change in water clarity result in review of erosion and sediment controls and methodology	Internal reporting to Alliance.
		During Construction	Weekly for low / med risk activities	Section 5.3.2 of ESCP	Visual checks and manual water quality sampling at key points. To ensure devices remain effective. Improvements made as required.	Completion of checklists. Internal reporting to Alliance.
		During Construction	Daily for high risk activities such as streamworks	Section 5.3.2 of ESCP	Visual checks and manual water quality sampling at key points. To ensure devices remain effective. Completion of ESCP checklists. Improvements made as required.	Qualitative inspection outcomes on checklists.
		During Construction	in response to triggers identified in section 5.3.2 of ESCP. Activities observed to be happening on-site that are likely to compromise the effectiveness or integrity of that site's erosion and sediment controls; - Bearing in mind antecedent climatic conditions, a conspicuous change of water colour at the downstream monitoring sites that is very different to the colour that is normally associated with stream conditions at the same site, and with such change in colour not evident at upstream locations above the construction zone; - Obvious accumulation of sediment in the vicinity of the discharge points, or anywhere else within or in proximity to the active construction zones; - Streambank collapse or obvious signs of channel erosion / instability in the immediate receiving environments; - Visual reports / evidence of changes to downstream community structure (eg. fish kills, death or discolouration of instream plant communities, increased weed growth); and - Spillage / accident reports by site personnel.	Section 5.3.2 of ESCP	Determine project association, inform Council, ascertain magnitude, ascertain response, determine effectiveness of response, implement and monitor.	Internal reporting to Alliance. Council reporting as necessary.
	ESCP Flocculation Monitoring	During Construction	Weekly	Section 5.3.3 of ESCP	Flocculation Monitoring. Check pH levels weekly and periodic checks of suspended solids levels	Internal reporting to Alliance
	ESCP Habitat Monitoring	Pre Construction	One Off Pre Construction	Ecological Impact Assessment (Technical Report 26 Volume 3)	Baseline survey to determine and confirm antecedent conditions. BACI Methodology.	Internal reporting to Alliance
		During Construction	As per schedule	Ecological Impact Assessment (Technical Report 26 Volume 3)	To determine trends in ecological and environmental variables. BACI Methodology.	Internal reporting to Alliance
		During Construction	Trigger Monitoring	Ecological Impact Assessment (Technical Report 26 Volume 3)	To determine effects of a specific event when pre determined threshold exceeded. Linked to checking devices and/or methodologies and if significant effect (potential) then undertaking detailed <u>ecological monitoring</u>	Internal reporting to Alliance.
		Post Construction	One Off Post Construction	Ecological Impact Assessment (Technical Report 26 Volume 3)	Assess medium term effects to determine any remediation required. BACI Methodology.	Internal reporting to Alliance. Reporting to Council.
	Response to Indicators of Significant Effects	During Construction	If Trigger Monitoring determines potential effect then initiate	Ecological Impact Assessment (Technical Report 26 Volume 3) and Section 5.3.5 of ESCP	Undertake a range of qualitative and quantitative monitoring to determine effect and response required. Assess cause, effect is ongoing, magnitude, sensitivity of receiving environment and remedial action.	Internal reporting to Alliance. Council reporting as necessary.

Groundwater (Level)

Sub Plan	Aspect	Phase	Frequency	Location and Plan Reference	Monitoring Comments	Reporting
Groundwater Management Plan	Groundwater Level Monitoring	Pre-construction	Monthly for twelve (12) months prior to construction (where feasible).	See Groundwater Monitoring Plan – Appendix A	Alert and Action trigger levels will be calculated following collection of data during pre-construction groundwater monitoring.	A Groundwater Monitoring Report recording the groundwater monitoring data and interpretation of the data will be produced at three (3) monthly intervals and submitted to GWRC within one (1) week of the final monitoring round within that period.
		Pre-construction	Weekly for one (1) month prior to construction.			
	Surface Water Flow Monitoring	Pre-construction	15 minute intervals (continuous flow gauges) or monthly (spot gauging) for one (1) year prior to construction commencing (as feasible).	See Groundwater Monitoring Plan – Appendix A	3 No. flow gauges (2 at Wharemauku Stream and 1 at Drain 5) as feasible.	Results presented three (3) monthly as an appendix to the Groundwater Monitoring Report.
	Groundwater Level Monitoring	During construction	Twice monthly in monitoring bores more than 200 m from "active" construction	See Groundwater Monitoring Plan – Appendix A	Where an Alert or Action trigger level is exceeded, monitoring at the frequency specified in <i>During Construction (4) or (5)</i> shall commence.	A Groundwater Monitoring Report recording the groundwater monitoring data and interpretation of the data will be produced at three (3) monthly intervals and submitted to GWRC within one (1) week of the final monitoring round within that period.
			Twice weekly in monitoring bores within 200 m of "active" construction			
			Daily – when an Alert trigger level is exceeded.	Monitoring bores within 200 m of the monitoring bore in which an Alert level is triggered.	Where an Alert trigger level is exceeded, the Alliance's Environmental Manager and the Consenting Authority (Greater Wellington Regional Council) will be notified by the Site Manager in writing within 3 working days with details of actions to be undertaken.	
			Daily – when an Action trigger level is exceeded.	Monitoring bores within 200 m of the monitoring bore in which an Action level is triggered.	Where an Action trigger level is exceeded, any activity that has the potential to cause adverse effects (such as increasing drawdown) will be ceased or mitigated and the Alliance's Environmental Manager and the Consenting Authority (Greater Wellington Regional Council) will be notified by the Site Manager in writing within 3 working days with details of actions to be undertaken. Works may recommence once groundwater levels return to sub-action levels or if written notice is received from the Consenting Authority (Greater Wellington Regional Council).	
	Excavation Inflows	During construction	Daily – when groundwater inflows are sufficient to warrant pumping and removal		Discharged volumes shall be monitored and recorded (as feasible). This flow monitoring will be carried out in conjunction with monitoring described in the monitoring section of the Erosion and Sediment Control Plan (Doc. Ref G.22) and/or Contaminated Soil Management Plan.	
	Surface Water Flow Monitoring	During construction	15 minute intervals (continuous flow gauges) or monthly (spot gauging) for one (1) year prior to construction commencing (as feasible).		3 No. flow gauges (2 at Wharemauku Stream and 1 at Drain 5) as feasible.	Results presented three (3) monthly as an appendix to the Groundwater Monitoring Report.
	Groundwater Level Monitoring	Post construction	Monthly for one (1) year following completion of construction. Three (3) monthly for up to two (2) years after completion of <i>Post Construction (1)</i> where groundwater levels in monitoring bores have not stabilised OR where monitoring bores are located 100 m from an <u>unlined stormwater pond or wetland</u> .	See Groundwater Monitoring Plan – Appendix A	Monitoring may cease if groundwater levels stabilise (accounting for seasonal variability) and in agreement with GWRC.	A Groundwater Monitoring Report recording the groundwater monitoring data and interpretation of the data will be produced at three (3) monthly intervals and submitted to GWRC within one (1) week of the final monitoring round within that period.
Surface Water Flow Monitoring	Post construction	15 minutes intervals for one (1) year following construction.	See Groundwater Monitoring Plan – Section 5.3 and Appendix A.	Monitoring may cease if no effect on base flows has been recorded during construction or in the post construction monitoring period.	Results presented three (3) monthly as an appendix to the Groundwater Monitoring Report.	

Settlement

Sub Plan	Aspect	Phase	Frequency	Location and Plan Reference	Monitoring Comments	Reporting
Settlement Management Plan	Ground Settlement Monitoring	Pre-construction	Monthly, for 12 months before construction commences	SEMP, Section 3.2 and Appendix C – Settlement Monitoring Plan	Survey monitoring of permanent marks in the ground or on buildings to establish the baseline for subsequent monitoring against predicted effects, and to identify the seasonal range of movements.	A Settlement Monitoring Report recording the survey monitoring data will be submitted to GWRC within one week of the final monitoring.
		During Construction	Quarterly	SEMP, Section 3.2 and Appendix C – Settlement Monitoring Plan	On-going survey monitoring of permanent marks in the ground or on buildings.	A Settlement Monitoring Report recording the survey monitoring data and interpretation of the data will be produced at quarterly intervals and submitted to GWRC
		During Active Construction	Monthly	SEMP, Section 3.2 and Appendix C – Settlement Monitoring Plan	On-going survey monitoring of permanent marks in the ground or on buildings.	A Settlement Monitoring Report recording the survey monitoring data and interpretation of the data will be produced at quarterly intervals and submitted to GWRC
		Post Construction	Quarterly for first 6 months following completion of active construction, reducing to every 6 monthly for two years after construction	SEMP, Section 3.2 and Appendix C – Settlement Monitoring Plan	Survey monitoring of permanent marks in the ground or on buildings to confirm no further settlement effects due to the Project.	A Settlement Monitoring Report recording the survey monitoring data and interpretation of the data will be produced at 6 monthly intervals and submitted to GWRC
	Building Condition Assessment Monitoring	Pre-construction	Initial structural condition survey of buildings identified in SEMP.	SEMP, Section 3.2	Initial assessment comprising an inspection (internal and external) of each building and significant structure on the property to establish and record its condition. Written description and photographs of existing damage.	Initial Building Condition Assessment Report to be provided to the owner.
		During Active Construction	Monthly visual assessment during 'active construction' for buildings identified in SEMP. Frequency may be increased if monitoring indicates significant effects.	SEMP, Section 3.2	Visual assessments during active construction to look for any evidence of effects, with reference to the initial condition (baseline) survey for specifically identified buildings.	Visual Assessment Report to be provided to the owner if any evidence of effects identified.
		Post Construction	Post construction condition survey of buildings identified in SEMP. Within 6 months of completion of construction.	SEMP, Section 3.2	Internal and external inspection of each building and significant structure on the property, to establish and record its condition and compare against the initial record, where required.	Post Construction Building Condition Assessment Report to be provided to the owner.

Contaminated Soils Groundwater

Sub Plan	Aspect	Phase	Frequency	Location and Plan Reference	Monitoring Comments	Reporting
Contaminated Soils and Groundwater Management Plan	Sediment Retention Ponds (link with ESCP)	Construction	As required	SRPs capturing runoff and sediment from 55 Rata Road, Kāpiti Road Intersection and 124-154 Te Moana Road	Chemical analysis of water and sediment for contamination prior to discharge to the environment	Within the regular project progress updates to NZTA. Any issues or encouragement communicated back to staff at toolbox talks.
	Contaminated soils leachability testing	During Construction	Once	55 Rata Road	Leachability testing of soils required to determine risks to groundwater from pre-loading	Within the regular project progress updates to NZTA. Results used to inform contaminated groundwater controls required at this site.
	Contaminated soils – verification testing	Construction	As required	At all contaminated sites and other locations considered necessary	Testing of materials due for disposal at landfill to provide further information to landfill operators.	Within the regular project progress updates to NZTA. Any issues or encouragement communicated back to staff at toolbox talks.
	Contaminated soils – validation testing	Construction	As required	At all contaminated sites and other locations considered necessary	Testing of concentrations of contaminants within the materials underlying the excavation works that remain in situ.	Within the regular project progress updates to NZTA. Any issues or encouragement communicated back to staff at toolbox talks.
	Contaminated soils – discovery testing	Construction	As required	At any location where unexpected contaminated soils or groundwater are suspected	Testing of suspected contaminated materials to understand risks	Within the regular project progress updates to NZTA. Any issues or encouragement communicated back to staff at toolbox talks.
	Monitoring of discharge of contaminants	Construction	As specified by resource consent conditions	At contaminated sites and/or other location where contaminated soils are reused	Resource consent is required for all contaminated sites in accordance with Rule 22 of the Discharges to Land Plan. Consent conditions may require additional monitoring of discharges of contaminants at the originating site or disposal site (other than landfill).	Within the regular project progress updates to NZTA. Any issues or encouragement communicated back to staff at toolbox talks.
	Site Validation Report	Post-construction	Once	The length of the Expressway.	The SVR will provide a summary of the activities undertaken to manage contaminated soils during the construction works, including documentation of excavation locations, disposal records, and testing and monitoring results. The SVR will also provide, where relevant, details on any contaminants remaining in situ including any proposed long term management measures.	Within the regular project progress updates to NZTA.

Hazardous Substances

Sub Plan	Aspect	Phase	Frequency	Location and Plan Reference	Monitoring Comments	Reporting
Hazardous Substances Management Plan	Storage and Handling of Hazardous Substances	Routine – Construction	Monthly	All hazardous substances storage sites	Inspection to include the following aspects; * Hazardous substance inventory is updated * Check that chemicals are stored correctly * Check condition of bunds; and * Check that spill kits are well stocked.	Within the regular project progress updates to NZTA.

Sub Plan	Aspect	Phase	Frequency of survey	Location and Plan Reference	Monitoring Comments	Reporting
Ecological and Landscape Management Plans	Vegetation and Wetlands	Routine – construction phase	Fort-nightly	Fenced off vegetation and trees to be retained at Project Footprint/Construction Footprint boundary	Monitor condition of vegetation, condition of protective fencing, works undertaken in the vicinity, including the dripline area, and note any action required.	Contractor and Project Ecologist and/or Landscape Architect to submit monitoring reports (including date of site visits) to the Alliance Environmental Manager quarterly
		Routine – mitigation planting and restoration phase	Weekly – Fortnightly – monthly – 3 monthly (or as set down as hold points)	Wetland restoration projects and mitigation planting along the length of the Alignment Route.	Monitoring the performance of the planting contractor – monitoring requirements dependant on contractual obligations – on type and species of planting ,locations of plants, consistency with ecological and landscape requirements and objectives in terms of species and habitat. This includes review of pest plant removal, mulching, planting phase, continual pest plant and weed control, progress against maintenance schedule	Contractor and Project Landscape Architect to report quarterly to the Alliance Environmental Manager.
		Routine – pest plant and weed management	Responding to observations in the field from time-to-time.	Areas of disturbed ground, stream riparian zones, ecological and stormwater wetlands, revegetation and restoration areas.	Identify and survey areas recently colonised by pest plants and areas the contain potential for infestation.	The Contractor and Project Ecologist and/or Landscape Architect to record date of survey, findings and actions to Alliance Environmental Manager. Reports as required
		Transition phase – pest plant and weed management	Bi-annual weed survey (late spring and autumn), and two year post earthworks stabilisation.	Areas of disturbed ground, and include haul road and main road edges, all batter slopes, all spoil areas, all diversion reaches, all laid down and storage sites and all sediment control ponds and all stream riparian zones, diversion channels and a particularly focus on wetland restoration areas and stormwater ponds.	Undertake a weed survey, per construction section, when all bulk earthworks have been completed, all disposal sites are finished, and soil stabilisation has been well advanced.	The Contractor and Project Ecologist are to record and report to the Alliance Environmental Manager on the species, GPS location and a measure of abundance of the weed as well as any complicating management issues. Reports bi-annual following completion of survey.
		Routine – peat compaction and preloading phase of construction, transition phase (provide baseline for operational monitoring)	Permanent water table monitoring devices and monthly checking of devices and wetlands as required..	Raumati Manuka Wetland; Otaihanga wetland complex; El Rancho wetland; Tukerakau wetland; Te Harakeke wetland.	Undertake hydrological monitoring of these wetlands through piezometers or other water table monitoring methods and wetland condition monitoring.	The Contractor and Project Ecologist in association with groundwater specialists will report as required. Routine sampling will be summarised in an annual report.
		Routine – transition phase	Bi-annual for 2 years for terrestrial planting following completion of defects and liability period and 4 years for wetland planting.	Areas of revegetation and restoration as per the planting plans.	Contractor and Project Landscape Architect to carry out site visits and record (including photographs) the extent of increases in area coverage, the extent of die-back (where observed) and general observations of plant health.	The Contractor and Project Landscape Architect to submit bi-annual reports to the Alliance Environmental Manager.

Ecological & Landscape

Ecological and Landscape Management Plans	Freshwater	Riparian restoration and planting	Quarterly (as established from initial on-site meeting)	All new diversions, culverts, riprap and bridge structures in streams within the Construction Footprint.	Immediately following formation of diversions/rip-rap the Project Ecologist will inspect and confirm that any planting within the diversion is sufficient and meets best practice.	The Contractor and Project Ecologist are to report on the quality of the riparian planting.
		Routine – construction phase	Fortnightly – monthly (as established from initial on-site meeting)	All drains and streams within the Construction Footprint.	Immediately following formation of diversions and prior to livening of the new channel the Project Ecologist will inspect and confirm that any structures within the diversion will provide fish passage for all native species currently known to occur or are reasonably likely to occur within this stream.	The Contractor and Project Ecologist are to report on the quality of the culverts and diversions and evidence of fish passage.
	Significant Aquatic Receiving Environments	Routine – construction phase	Fortnightly – monthly (as established from initial on-site meeting)	The estuaries and significant wetland systems which are the receiving environments for the Expressway.	The primary opportunity for management of risk of sediment discharge to valued streams and the marine environment rests with monitoring and adaptive management of the site, systems for erosion control, the capture and treatment of sediment laden water, and its discharge. Appendix 9 provides an indicative freshwater aquatic monitoring plan, which uses baseline data to establish triggers for changes to turbidity, sediment deposition and aquatic health and guidance for how the results of this monitoring will feed into an adaptive management processes. Appendix 10 provides an indicative marine monitoring plan which uses baseline data to establish triggers for changes to sediment deposition and the health of the marine environment and guidance for how the results of this monitoring will feed into an adaptive management processes.	Refer Appendix 9 and Appendix 10 for reporting frequency.
	Terrestrial fauna	In relation to specific activities affecting the habitat of these species e.g. Lizard transfer, fernbird re-location.	Annual surveys targeted at habitat for these species, depending on individual species requirements – lizards and birds.	As determined by survey and ecological assessments.	Plans and permits (Department of Conservation, Wildlife Act) will be required for each species which will specify the process and reporting requirements.	B-annual to annual reporting as per plan.
		Routine – pre, during and post construction.	Involvement during construction to ensure that areas containing indigenous fauna are suitably recognised and managed.	Anywhere that activities potentially impact on habitat of indigenous species.	As required and determined by Project Ecologist.	Programming to be determined
	Final shaping of dune landforms	Routine – construction phase	Weekly – Fortnightly – monthly – 3 monthly (or as set down as hold points)	Dune landscapes within the Construction Footprint.	Inception meeting with Contractor, Civil Engineer and the Project Landscape Architect. Site visits during the earthworks phase and reshaping of dune landforms.	The Contractor and Project Landscape Architect to submit reports (including photographs) to the Alliance Environmental Manager.

Resource Efficiency and Waste

Sub Plan	Aspect	Phase	Frequency	Location and Plan Reference	Monitoring Comments	Reporting
Resource Efficiency and Waste Management Plan	Storage of Raw Materials	Routine – construction	Monthly	Main Construction Yard	* check areas are not overfilled and are suitable for the materials being stored * check materials that require special handling are not damaged * check materials segregation is correct * check materials are not being cross-contaminated e.g. with other materials or packaging * check materials do not have weather-related damage	Within the regular project progress updates to NZTA. Any issues or encouragement communicated back to staff at toolbox talks.
	Storage of Waste & Segregation	Routine – construction	Monthly	Main Construction Yard	* check skip labels are present and visible * check use of appropriate containers for waste * check skips and bins for discharges, including wind-blown materials * check general waste bins have lids closed to prevent vermin and odours * visual check that materials are being correctly separated by staff * ensure bins are being emptied only when full * check hazardous and non-hazardous wastes are not being disposed together	Within the regular project progress updates to NZTA. Any issues or encouragement communicated back to staff at toolbox talks. Retain copies of transport and disposal documents for hazardous wastes for chain of custody
	Waste Audit	Routine – construction	Six-monthly	Main Construction Yard	* check hazardous and non-hazardous wastes are not being disposed together * physical sort of waste to check materials for recycling are being separated correctly	Within the regular project progress updates to NZTA. Any issues or encouragement communicated back to staff at toolbox talks.
	Waste tracking	Routine – construction	Weekly	Main Construction Yard	Record volumes and tonnages of all waste and recycling streams leaving site in Fletcher Building on-line tracking database	Within the regular project progress updates to NZTA and against waste KPIs.

Sub Plan	Aspect	Phase	Frequency	Location and Plan Reference	Monitoring Comments	Reporting
Construction Traffic Management Plan	Traffic Management Auditing	Routine – Construction	Every second month	All active construction sites affecting traffic	As prescribed by COPTTM. Weighted by AADT.	Within the regular project progress updates to NZTA.
	Travel Times	Routine – Construction	Every second month	SH1, Raumati Road, Kāpiti Road, Mazengarb Road, and Te Moana Road.	Travel times are currently being measured by Beca for NZTA.	Within the regular project progress updates to NZTA.
	Stakeholders Survey	Routine – Construction	Every second month	Various	As part of the Stakeholder Engagement and Communications plan.	Within the regular project progress updates to NZTA.