

APPENDIX G: SUMMARY OF PRE-LODGEEMENT ENGAGEMENT WITH WCC AND GWRC

Summary of WCC Feedback

Technical Report #2 Constructability Report

Summary of WCC comments

Feedback from WCC on Technical Report #2 focused on concerns regarding the identified construction methodology and/or on the potential impacts the approach could have on the surrounding environment.

Regarding the construction methodology, these concerns included:

- For the tunnelling method, the change trigger from road header to drill and blast requires a defined rock strength threshold and advance probe drilling protocol, neither of which is currently specified. WCC express concern that without this information, the contractor has no clear decision framework when facing competent intact rock mid-drive. It is requested that it be included in the Report.
- The proposed managed excavation approach for the Terrace Tunnel, using staged face advance, forepoling, and pre-grouting through fault zones, is the correct methodology and broadly consistent with modern practice. However, the viability of this approach is contingent on the TARP (Trigger Action Response Plan) framework being fully developed before tunnelling commences, with trigger levels defined and tied to real-time surface monitoring. A TARP for subsidence should be included in the Report.
- Soil nailing and ground anchoring in the Terrace Fault zone and Mt Victoria eastern fault zone approach is proposed as the primary stabilisation method for cut slopes up to 25 to 30 metres height. The method is viable in competent rock zones but unverified in fault zone material without site-specific pull-out testing and kinematic analysis.
- WCC identified a viability gap regarding seismic stability of temporary works. They noted that open portal excavations, the Sussex Street trench with dewatered liquefiable ground, partially constructed secant pile walls, and Basin Reserve embankment construction had not been assessed against seismic loading—an essential requirement for a multi-year construction programme in Wellington.

Impacts on the surrounding environment from the construction methodology identified by WCC included:

- Technical Report #2 should provide cross-references to other relevant reports and conditions requirements, for example, the Construction Air Quality Management Plan (CAQMP).
- Confirmation is requested that the intersections along the preferred haulage route can accommodate heavy vehicle turning movements/tracking path.
- Access to the proposed construction yards was queried with a preference that access be direct from SH1 to minimise impacts on local roads; for example, Tasman Street movements would impact Mt Cook Primary School. It was also recommended that a condition be included that would prevent truck movements during peak periods.
- Noise limits of 45dB should be explicitly stated as the permitted activity standard throughout the Report.
- A condition should require the Hataitai Connection bridge to be in operation before the existing Hataitai footbridge is removed.
- The multi-year closure of the Commonwealth Walkway has the potential to create CPTED issues because there will be a reduction in passive surveillance from Pukeahu because there

is only one entrance and exit. The proposed diversion via Rugby Street only worked for westbound cyclists and would need to become a two-way facility for eastbound travel.

- Temporary access to the Basin Reserve must be maintained throughout the construction period to enable it to continue to operate as a cricket and events venue.
- Service relocations need to be coordinated with WCC's network management team to minimise disruption. Te Papa's Tory Street collection storage facility is highly sensitive to vibration. It is recommended that NZTA work directly with Te Papa to establish vibration limits, protocols, and monitoring arrangements.
- Local road damage from heavy vehicles would need to be remediated in line with local conditions, and some pavements (such as Hania Street and Brougham Street) might require pre-strengthening to carry heavy vehicle movements without causing property vibration.

Specialist/NZTA responses and actions

The current level of design development has meant that some of the concerns raised about the construction methodology are not able to be addressed conclusively at this phase but will continue to be considered at the detailed design phase. These concerns include:

- Technical concerns about tunnelling methods
- Development of a TARP framework (noting that an outline of the intended approach is now included in Technical Report #15- Groundwater Assessment)
- Pull-out testing and kinematic analysis to determine the viability of soil nailing and ground anchoring
- Seismic stability of temporary works.

The preferred haulage routes are yet to be confirmed. Further details regarding truck movements will be provided in the Construction Traffic and Transport Management Plan (CTTMP). Technical Report #5 Integrated Transport Assessment provides further detail regarding the assessment of construction traffic. Regarding construction compounds, NZTA confirms that the Martin Square access would use existing intersections with Taranaki Street, and that the Sussex Street yard's main purpose would be site office and welfare facilities which would not result in regular heavy vehicle trips. For the Ellice Street yard, NZTA notes that access from local roads is preferred for safety and operation, though oversize and long vehicle access might be provided via a slip lane from SH1.

Access to Mt Cook Primary School is on Tory Street and so construction access is not likely to be past the school, as there is no obvious attraction for a contractor to be using Tory rather than Rugby Street for truck movements. Notwithstanding this, confirmation of any construction access routes will be addressed at the CTTMP stage.

A condition requiring at least one signal controlled or grade-separated crossing for pedestrians and cyclists over Ruahine Street from Hataitai to Hataitai Park be maintained during Construction Works is included in the proposed designation conditions. This is in response to the WCC request for a condition seeking the Hataitai Connection bridge be in operation before the existing Hataitai footbridge is removed.

NZTA otherwise confirms that many of the other matters raised by WCC will be managed through existing coordination mechanisms: the Network Planning Group (NPG) will consider block closure coordination and service relocation; the CTTMP will address minimum footpath widths during construction, VMS signage, pavement remediation, Basin Reserve event access, and pedestrian diversions. The Construction Noise and Vibration Management Plan (CNVMP) and associated Schedules will manage construction noise and Te Papa collection vibration concerns and monitoring requirements. NZTA notes that the permitted activity noise standard referred to by WCC does not apply to designations, or construction noise emissions under the District Plan.

Technical Report #5: Integrated Transport Assessment

Summary of WCC comments

WCC provided written feedback on Technical Report #5 – Integrated Transport Assessment. The feedback covered a wide scope, including updates on the status of WCC projects, areas where additional assessment was requested, and opportunities for design amendments. The following summarises some of the key areas of concern raised by WCC.

Effects on local roads

WCC was concerned that effects on local roads, particularly in Mt Victoria and Hataitai, had been under-assessed and not comprehensively modelled. Areas of concern included:

- Closure of the Pirie Street exit
- Left-turn-only restriction at Ellice Street
- Increased traffic on Brougham Street and Elizabeth Street
- Intersection performance assessment was requested on key intersections including Elizabeth Street/Kent Terrace/Cambridge Terrace and Pirie/Brougham Streets.
- WCC noted specific concerns at the Abel Smith Street/Cuba Street four-way stop, which would in their opinion result in increased traffic from removed turns. WCC noted that they receive regular safety complaints in this location.

WCC suggested investigating a one-way northbound connection from Home Street to Elizabeth Street to maintain access for commercial traffic. WCC also noted that all parking removal, turning restrictions, and kerbside changes on local roads required WCC Traffic Resolutions and elected member approval.

Construction effects

WCC expressed concern that construction impacts may have been underestimated in both duration and severity and that the conclusion in the draft report of construction effects being reliably reduced to low or manageable levels did not have sufficient evidence to support it. Areas of particular concern included:

- Northbound lanes would be reduced during construction of the Ghuznee Street bridge, impacting Karo Drive, Willis Street and Victoria Street.
- Newtown and Oriental Parade corridors are already at high peak demand and unable to accommodate further detoured traffic.

It was requested by WCC that a comprehensive, staged CTTMP be provided to address network capacity, public transport priority, active mode continuity, and parking and access management, with performance-based measures including limits on allowable increases in travel time relative to baseline.

Active modes

WCC expressed concern regarding the methodology undertaken to assess active modes. The use of Strava data was not considered an accurate data source because, in WCC's view, it is used only by confident riders rather than commuters. It was recommended that WCC count data be used instead and that a reference be made to the WCC Strategic Bike Network. Other comments included:

- Mt Victoria Tunnel Shared Path was considered by WCC to be under scoped. According to WCC, industry guidance requires that infrastructure with a design life of 60 years or longer have separate walking and cycling paths.

- Victoria Street light phasing was considered to be insufficient to accommodate the number of projected cyclists. The proposal requires positioning to the left of two turn lanes, with only 12 to 14 seconds of green in a 120-second cycle, forcing cyclists to mix with general traffic.
- Vivian and Karo crossings were considered to be problematic for active modes and public transport.
- Pedestrian access from the north at the Basin Reserve was considered significantly adversely affected, not moderately as stated. The current raised zebra crossing over one lane was being replaced with a signalised crossing over three SH1 lanes that would likely be blocked by turning vehicles. The right-turn lane required for westbound buses was considered to compromise north-south traffic flow and to sever walking and cycling connections to Kent and Cambridge Terraces.
- WCC was concerned that additional lanes, increased volumes, and higher speeds created moderate safety risks, particularly for pedestrians, with serious injuries likely during off-peak periods when active speed management might not apply.
- WCC was particularly concerned about the proposed closure of the Mt Victoria Tunnel shared path for 36 months and understood this could potentially extend to five years. WCC considered this created high adverse effects that could not be reduced to moderate with bus subsidies alone. Such a lengthy closure was considered unworkable without maintaining alternative access, and WCC recommended investigating a Town Belt path connecting Hataitai to Mt Victoria with a sealed surface and lighting to provide all-weather, all-hours access during the closure period.

Public Transport

WCC noted its role as the Road Controlling Authority (RCA) for road suitability for bus routes, with double-deck and articulated buses requiring separate RCA permits and all bus infrastructure being RCA-controlled. WCC identified several public transport opportunities not captured in the assessment:

- Morning peak bus lanes on Hamilton Road and Kupe Street to avoid queues.
- Peak-time bus lanes on Victoria and Taranaki Streets being investigated by WCC and GWRC.
- WCC expected that increased SH1 capacity would benefit side roads and public transport, not just maintain current performance.

Parking

WCC considered the parking assessment incomplete because it could not demonstrate residual capacity to absorb displaced demand. Technical Report #5 has no quantified baseline of existing parking use, demand, or servicing requirements. WCC had counted over 60 carparks being removed in Eastern Connections alone, more than the 54 stated in the ITA. WCC was concerned that the removal of Vivian Street parking adversely affected business loading, with no alternative frontage access for many properties. Discussions about time-restricted loading access from 9pm to 7am, with camera enforcement, remained unresolved. WCC suggested a comprehensive Parking and Kerbside Management Plan be prepared for both construction and operation and noted the need for coordination with WCC's Victoria/Vivian cycleway plans for which 30% draft design had been provided to NZTA.

Modelling

Further information on the transport modelling carried out was requested.

Specialist/NZTA responses and actions

In response to this feedback, Technical Report #5 has been updated as follows:

- Construction modelling has been completed, and the report updated to include more detail on construction disruption and on the traffic models used.

- More detail has been provided on residential parking impacts.
- More detail has been provided on the local network covering Hataitai, Mt Victoria, and Kilbirnie.
- The Regional Land Transport Plan assessment and all earlier District Plan evaluation has been now included in the Application (Parts A and B) rather than Technical Report #5.
- Modelling data and assessment for public transport journeys, including across SH1, has been provided as well as narrative on pedestrian crossing timings.
- An additional section has been included describing the effects of the Project on the Mt Victoria community.
- The report has been updated to reflect design changes, including a cycle link at Hania Street and a cycle link between Ruahine Street and Moxham Avenue by the new Hataitai Connections bridge.
- The report includes an effects assessment for loss of Vivian Street parking and mitigation recommendations to address these effects.
- Content on potential safety risks has been updated with additional commentary on likely safety implications on other corridors.

Further responses are set out below:

- Strava data is considered to provide a useful overview of current active mode trips with sufficient detail to inform consideration of effects and mitigation measures. The report has been prepared using the best available data from a range of sources. This includes the WCC Bike Network information, which is referenced in the Existing Environment section of the report.
- The majority of kerbside parking removal is on SH1. The proposed parking removal on Moxham Avenue is expected to be undertaken by WCC in advance of the Project.
- NZTA considers that it is not practicable to retain the active mode path through the existing Mt Victoria tunnel during the construction of the new Mt Victoria tunnel. A condition is proposed to enable access to and along existing trails within the Wellington Town Belt during Construction Works and, if trails are required to be closed, a requirement to provide suitable alternative routes, where practicable.
- A CTTMP condition has been proposed to address construction effects, and NZTA considers that many of the detailed matters raised by WCC can be addressed in the CTTMP and through the NPG.
- Engagement with GWRC and WCC will be ongoing, including through the NPG, to ensure overall disruption is minimised as far as practicable
- Engagement with schools along the corridor and WCC will be ongoing. The design includes mitigation measures for active-mode access to schools.
- NZTA notes that the proposed condition set was still under NZTA review at the time of the pre-lodgment engagement and is intended to be shared with WCC when available. Conditions for a CTTMP are proposed to address many of the detailed matters raised by WCC, along with the NPG.
- NZTA acknowledged WCC's approval requirements for changes to local roads. A signage strategy can be developed in the detailed design phase.
- NZTA undertook extensive further modelling of construction scenarios after receiving WCC's feedback. This modelling reports on journey times for key routes through and across the SH1 corridor, as opposed to a series of individual intersections. This approach provides more appropriate reporting of likely effects of the construction than reporting discrete intersection Levels of Service.
- NZTA noted that Technical Report #2 – Constructability now refers to three years of closure in response to WCC's uncertainty regarding the Mt Victoria shared path closure.

- Consideration has been given to the Over Dimension Route regarding the Basin Reserve road network in section 7 of Technical Report #5.

Feedback on Design Drawings

Summary of WCC comments

WCC made a number of comments and raised some concerns with localised Project design elements, commenting on draft design drawings shared as part of the pre-lodgement consultation. These issues are summarised as part of the NZTA response below.

WCC comment and NZTA responses

General Arrangement (walking and cycling):

- Drawing 00115, NZTA confirmed WCC's assumption around dedicated traffic light phasing for cyclists at on the Victoria Street approach to Vivian Street, and noted the safety benefits.
- Drawing 00116, NZTA confirms advanced stop boxes for cyclists will be retained at Cuba Street, in response to a WCC query on this.
- Drawing 00117, NZTA has updated the design to include new dedicated cycle crossings of Kent Terrace and Pirie Street, as requested by WCC.
- Drawing 00121, NZTA noted that WCC concerns about the switchback path adjacent to the Crèche could be improved with an alternative Crèche location which is provided for in proposed conditions, subject to agreement with key stakeholders. In the event it remains as proposed, NZTA considers the path is navigable by cyclists with an intermediate skill level based on the guidance round minimum curve radii provided in the NZ Cycle Trails Design Guide¹. The reason for the length of path is to provide an accessible route for pedestrians and mobility impaired users.
- Drawing 00121, WCC noted that the north-south connection for cyclists was good, which NZTA acknowledges.
- Drawing 00121, WCC noted that the footpath on the east side of Sussex Street could be widened or relocated or separated from traffic (by landscaping). NZTA confirmed this footpath was already separated from traffic by landscaping, where this is practicable.
- Drawing 00122, WCC noted that the Rugby Street shared path is below standard and has high speeds – no changes were proposed by WCC. The path is narrow because the cross section between private property and the Basin Reserve is narrow, vehicle lanes are also narrow in that location. Moreover, the proposed path is similar to the current width. The Project does legitimise eastbound cycle use, which is not permitted currently (but does occur). No NZTA changes are proposed.
- Drawing 00123, WCC raised concerns about the footpath width and islands at the Dufferin Street signals. NZTA confirms that the path at this location was wider (i.e. 5m) than had been assumed by the WCC reviewer (3m).
- Drawing 00126, WCC queried the width of the shared path down to Taurima Street, NZTA confirmed the narrowest width was 3.15m.
- Drawing 00126, WCC queried how cyclists rejoined the local road network on Taurima Street. NZTA have added sharrows to the road east of the shared crossing to indicate that the location for cyclists to enter or leave the shared path is at that crossing.
- Drawing 00126, WCC queried whether Moxham Avenue would still have sharrows following the Project. NZTA confirmed that no changes to Moxham Avenue sharrows are proposed (as this is outside the Project area).

¹ <https://www.mbie.govt.nz/assets/new-zealand-cycle-trail-design-guide.pdf>

- Drawing 00126, WCC raised concerns about the intervisibility between eastbound vehicles and cyclists approaching the shared crossing of Taurima Street. The crossing is raised which will slow approaching vehicles, and the tight turn will slow cyclists reducing risk.
- Drawing 00127, WCC stated that the revised connection between Ruahine Street and Tapiri Street should provide for cyclists (current connection is a stair). NZTA advised that no change to the design is proposed as lack of cycle access at this location is unrelated to any effects arising from the Project.
- Drawing 00127, WCC stated the footpath on Ruahine Street would be widened to convert it to a shared path and identified concerns with visibility to vehicle accesses along the shared path. WCC suggested that traffic lanes on Ruahine Street could be narrowed to provide an absolute minimum 1.5m offset. NZTA confirmed that the 3m footpath at this location would not be widened for shared path use. Rather, in the section with a service lane, bikes would be travelling in the service lane not on the footpath (placing bikes a minimum of 1.5m away from the property boundary). Therefore, no change to traffic lane widths on Ruahine Street is needed, or proposed.
- Drawing 00127, WCC queried the vehicle volume and speed and tracking on the 3.0m wider service lane. NZTA confirmed that the vehicle tracking along the service lane was acceptable and that vehicles entering accesses may temporarily encroach into the contra-flow cycle lane. NZTA advised that details of the service lane treatment (for example how speeds would be managed / hazards identified) would be confirmed as part of the Outline Plan.
- Drawing 00128, WCC suggested the footpath on the Hataitai Park access could be extended across the rugby club access to improve the crossing point across the Hataitai Park access. NZTA has incorporated this suggestion into the design.
- Drawing 00128, WCC suggested that a connection to a mountain bike track / Harrier Athletic club area could be provided in the area where the Badminton Hall is removed. NZTA advised that no change to the design is proposed as lack access at this location is not an effect of the Project.
- Drawing 00128, WCC suggested that the new path connection between Moxham Avenue and Ruahine Street on the south side of the Hataitai Connection bridge be made a shared path. NZTA has changed the design to a shared path.
- Drawing 00129, WCC stated that the shared vehicle/cycle area on Wellington Road should be redesigned as a shared path. WCC also raised concerns about visibility to vehicle crossings along the shared path and questioned connectivity along the route. NZTA confirmed that, in sections of Wellington Road with vehicle accesses, cyclists would share the service lane with traffic rather than use a shared path. This removes the vehicle access risk, as cyclists would be travelling further away from the property boundary. NZTA also advised that cycle crossings are provided across Hamilton Road and on the north side of Evans Bay Parade, as shown in the drawings, to connect to Cobham Drive and the east side of Evans Bay Parade.

General Arrangement (vehicle access):

- Drawing 00117, WCC suggested that Home Street could be connected (through private property) to Elizabeth Street to improve access to users heading northbound on Cambridge Terrace. NZTA advised that no change to the design is proposed as lack of access at this location is not a direct effect of the Project. While the Project necessitates some additional travel in the Mt Victoria location for a small number of people, the design change suggested would require additional property acquisition and house removal, for small travel gain for a limited number of local road users.
- Drawing 00124, WCC suggested that Paterson Street could be reversed from eastbound to westbound. NZTA has proposed the road is eastbound as it will provide better safety and access for properties along the new Paterson Street (as the footpath and properties will be on

the left side of the road, which aligns with public expectations for safe exit of a vehicle). However, this is a matter that can be explored further with WCC in future.

- Drawing 00126, WCC queried where westbound Taurima vehicles would turn if they have errantly entered the street. Signage would be installed to provide advance warning to vehicles of the cul-de-sac nature. If drivers still entered Taurima Street without a destination, then they would need to perform a three-point turn.
- Drawing 00128, WCC noted that the rugby club access has limited offset from the proposed intersection of the Hataitai Park access. While no change is requested in this comment, NZTA considers that the manoeuvre is feasible in the context of the constrained topography at this location.

General Arrangement (Town Belt impact):

- Drawing 00128, WCC noted some concerns about the footprint of the Hataitai Connection bridge and the adjacent links. Responses to these concerns have been specifically addressed in Technical Report 4 – Design Assessment.

Bridge Drawings:

- Drawing 00311 (Pukeahu active modes bridge, WCC noted support for the proposed width, which NZTA acknowledges.
- Drawing 00401 (Hataitai active modes bridge, WCC noted concerns with the width of the bridge, which is too narrow in their view. NZTA advised that the proposed bridge is wider than the existing bridge and speed management measures would be considered during future design stages.

Cross Section Drawings:

- Drawing 00507 (and Tunnel Portal Elevation Drawing 00703), WCC raised concerns about the width of the shared path within and east of the Mt Victoria Tunnel. The width of the facility within the tunnel is addressed in Technical Report #1 - Alternatives. In summary, consideration was given to providing either a 3.6m, 4.6m or 6.0m width facility. While wider options have greater levels of service and ability to support future growth in active mode numbers, the greater construction impacts (in terms of construction time needed) and physical work cost does not result in value for money, or additional contribution to the Project objective. Nor would a wider tunnel significantly improve access over the substantial improvement that the 3.6m path provides compared to the existing 1.4m path in the existing tunnel.
- NZTA advised that the shared path width outside the tunnel is wider than within the tunnel and no changes to the design are proposed as it would require significant additional earthworks or compromise the vehicle cross section width.
- Drawing 00510, WCC queried whether the footpath on the north side of the service lane (Wellington Road) was a shared path. NZTA advised that it was a footpath not a shared path.
- Drawing 00511, WCC raised concerns about the width of the cross section adjacent to Kilbirnie Park. NZTA's response to this issue is provided in Technical Report 4.

Technical Report #6 Noise and Vibration Assessment

Summary of WCC comments

WCC supported the assessment approach undertaken in Technical Report #6 – Noise and Vibration Assessment. A concern was raised regarding the proposed night-time construction works. A request was made to provide further information regarding the nature, scale, and duration of each activity requiring night work; the work area where these will occur; and the timing, duration, and percentage of construction work estimated to be undertaken at night. The request included confirmation of the

specific Best Practicable Option measures to be implemented and the circumstances under which these measures would be applied.

WCC also requested that Technical Report #6 specify the construction noise and vibration threshold criteria proposed for adoption, the predicted noise and vibration levels, and provide an assessment of the associated effects.

Specialist/NZTA responses and actions

A meeting was held with WCC on 29 April 2025 to discuss the feedback provided. During this meeting, NZTA's specialist explained that the nature, scale, and duration of each activity and work area cannot be accurately confirmed until a contractor has been appointed. However, the requested details will be included in the CNVMP recommended by the technical assessment, and more detail will be provided in the Schedules produced during construction.

The proposed approach of an envelope-of-effects assessment, with indicative noise and vibration radii within which potential exceedances may occur and require management, was supported by the WCC acoustic advisor at the meeting.

Technical Report #7 – Landscape, Urban Form and Visual Amenity Assessment

Summary of WCC comments

WCC commented on the approach and assessment undertaken in Technical Report #7 - Landscape, Urban Form and Visual Amenity Assessment. These overarching comments included:

- A request for an Urban Design and Landscape Framework that could provide a vision and principles, integrate multiple disciplines, enable the Project to respond to the local surrounds, identify opportunities to improve urban outcomes, provide a basis for stakeholder engagement and improve the user experience.
- Obtain agreement on design standards and specifications. All landscaping to be maintained by WCC should be designed with WCC agreement to ensure the cost and practicality of maintenance are managed.
- The Assessment should refer to the Aotearoa Urban Street Design Guide. A clear design framework would support alignment between NZTA and WCC.

WCC, in their review, identified several effects that could in their view be mitigated through design refinements or conditions. These included:

- A review of the Project footprint to identify opportunities to minimise land requirements, in particular, on public spaces, such as the Town Belt, Kilbirnie Park, and the Canal Reserve, and to reduce the amount of vegetation removal and otherwise reduce the visual effects of the road corridor.
- Opportunities for enhancement of existing public spaces taking a principle-based approach.
- Opportunity to relocate the Crèche building to the west would allow the green bridge to start ramping towards Cambridge Terrace earlier. This would reduce the gradient for active modes and create the potential for a more significant landing and improved interface with Cambridge Terrace.
- Further design refinement is sought in specific locations, including the pick-up/drop-off areas on Dufferin Street, the southbound bus stop on Adelaide Road, the interface with Canal Reserve, and the area in front of the Northern Gate of the Basin Reserve. WCC also identified opportunities to avoid mature trees in marginal locations where practicable, reduce the footprint of the Hataitai Connection bridge within the Town Belt, and refine the batter treatment of the slope above the eastern Hataitai Tunnel to reduce impacts on the Town Belt and visual amenity.
- The landscape design of Canal Reserve, Basin Reserve and Pukeahu should reflect the unique character and function of the three open spaces.

- Opportunity to restore cultural connection to Ākau Tangi Pā along Wellington Road.
- Recognise the Waipapa Stream, Kumototo Stream and tributaries within the corridor and enhance the environment where these interface with SH1 corridor in alignment with objectives identified in Cultural Impact Assessment.
- Concerns regarding CPTED, particularly around Sussex Street, both during construction and operation.

Specialist/NZTA responses and actions

A meeting was held with WCC on 23 April 2026 to discuss feedback regarding Technical Report #7 – Urban Form, Landscape and Visual Effects. Some of the discussion involved confirming feedback to be addressed in the documentation lodged as part of the substantive application, and feedback to be addressed through the proposed conditions. Minor comments received from WCC regarding clarifications or information to be included have been addressed in the updated Technical Report #7. In addition, NZTA have provided the following response to the more substantive feedback:

- NZTA proposes a condition that requires the preparation of an Urban and Landscape Design Management Plan (ULDMP) to guide further design ahead of an Outline Plan of Works. This includes embedded Mana Whenua engagement to incorporate cultural aspirations into design principles. The ULDMP will be required to be developed in consultation with WCC.
- NZTA has also prepared a document setting out the high-level guiding urban design principles that have informed the consent design. This principles document has been included with the substantive documentation as part of Technical Report #4 – Design Assessment.
- NZTA has also incorporated Mana Whenua feedback into this principles document.
- The Crèche location will continue to be considered post-lodgement through engagement with the Ministry for Culture and Heritage and Mana Whenua.
- Indicative visualisations of future development (including massing on residual land) are now included in the specialist report annexure.
- Regarding suggestions for refinement to the design, some amendments have been made in response to the feedback received from WCC, for example, providing additional space at the northern entrance to the Basin Reserve. Other aspects will be explored further through detailed design and addressed in the UDLMP.
- For CPTED matters on Sussex Street, a design change introducing a staircase from Pukeahu has been adopted for the consent design, with construction-stage risks managed through site security planning.
- The Aotearoa Urban Street Planning and Design Guide has now been referenced in the specialist report.
- The visual amenity of exposed retaining walls at the Basin Reserve will be addressed through the proposed ULDMP condition.. This will require the detailed design of retaining wall treatments to consider materials, finishes, planting, and other urban design responses to reduce visual effects where practicable.
- Wording on the Indicative Planting Palette drawing (801-806) has been updated to reference consultation with WCC specialists (i.e. parks and public space team representative) in respect of planting within WCC managed land.

Technical Report #8 Historic Heritage Assessment

Summary of WCC comments

WCC commented on the assessment framework used in Technical Report #8 – Historic Heritage Assessment. It requested that the report be updated to reflect Operative WCC 2024 District Plan as well as further information to be provided within the report regarding the assessment methodology,

effects on adjacent heritage areas, cumulative effects, and lessons learned on mitigating heritage impacts from previous projects in the area.

The following list of information was requested by WCC to be included within the report:

- A list of all specialists' reports that are relevant or should be read in conjunction with the heritage assessment report.
- A set of drawings (based on SH1WI-DES-00-GEN-DRG sheet number 00110-00130) showing all heritage items within the WCC 2024 DP, HNSCPT list and non-listed buildings identified in the heritage report.

The following sections of the Project were identified to be of particular interest to WCC from a heritage perspective:

- Intersections of Cuba Street with SH1 (both at Vivian Street and Karo Drive / Arthur Street) and potential impacts on the Cuba Heritage Area.
- Pukeahu Park and Crèche relocation.
- Connection between Basin Reserve and Canal Reserve.
- Paterson Street.
- Connection with Hataitai Shopping Centre heritage area.

WCC raised some concerns regarding the proposed mitigation measures and provided some alternative suggestions for some issues.

Regarding the Home of the Compassion Crèche, WCC's preference is for the Crèche to be relocated only once, rather than twice, and to the west towards Tory Street. WCC considers this location would better support heritage values in the long term by improving the Crèche's connection to Pukeahu Park.

WCC and HNZPT requested draft protocols, conservations plans, condition reports and heritage management plans prior to lodgement of the FTAA application, for heritage buildings and structures proposed for modification/relocation.

A meeting was held with WCC's Heritage Advisor and Heritage New Zealand to discuss these matters further.

Specialist/NZTA responses and actions

Technical Report #8 has been updated to address the feedback received from WCC. These updates are recorded below along with other NZTA responses to the feedback provided:

- Further detail regarding the approach taken to the assessment methodology has been provided; this includes the impacts framework and relevant policy criteria, including the WCC 2024 District Plan policies.
- Areas that have been considered further in response to feedback received from WCC include Cuba Street/Vivian Street/Karo Drive, Mount Victoria heritage areas (Brougham Street) and the Hataitai Shopping Centre heritage area.
- The report confirms that the Pukeahu Park extension is an important Project benefit (see Section 6.3), which restores connections between Basin and Canal Reserves and Pukeahu Park and assists in ameliorating adverse effects on the Home of Compassion Crèche through its integration within this landscape,
- The report also confirms that 9 Paterson Street, 7 Paterson Street and 140 Austin Street will be either repositioned on its existing site (in the case of Laureston) or relocated to a nearby site (in the case of Ettrick and 140 Austin) on the realigned Paterson Street.
- A list of relevant specialist reports and assessments has been included in Technical Report #8.

- Existing aerial maps showing heritage items are included in Annexure A. These maps have been augmented with other items identified as having heritage significance (as identified in the heritage report).
- It was agreed in the pre-lodgement meeting with HNZPT and WCC that roading modifications across upper Cuba Street to form Karo Drive as part of the 2007 Inner City Bypass are part of the Project's baseline condition and as such do not form part of this assessment. However, changes to anticipated traffic volumes on Arthur Street / Karo Drive are considered in terms of their impacts on the heritage of the area. In addition, the design has sought to reduce any potential severing effect via improved pedestrian amenity at the Cuba / Vivian Street intersection).
- NZTA confirms that the base assumption is that the Crèche will be relocated in the position shown on the consent design drawings, and the heritage assessment has been carried out on this basis. NZTA notes, however, that the final Crèche location will be confirmed post-lodgement based on engagement with the Ministry for Culture and Heritage (MCH) and Mana Whenua. The application includes a proposed condition, which provides for the Crèche to be relocated to an alternative location if agreed by relevant parties.
- Design refinement regarding scheduled building changes (eg Vivian Street verandahs) would occur as part of the outline plan stage, in accordance with NZTA's proposed conditions.
- The proposed designation conditions provide for the development of a Heritage Standard Management Protocol, Conservation Plans and Heritage Construction Management Plans, which must be provided to the council prior to the start of Construction Works.

Technical Report #10 Terrestrial Ecology Assessment

Summary of WCC comments

Overall, WCC supported the methodology used in Technical Report #10 and the recommendations in the report. The following summarises the feedback received, including additional information requested.

- Consultation should be undertaken with local groups involved in restoration planting in areas where there will be terrestrial vegetation loss.
- Further information on the role of Mana Whenua was requested.
- The Kororā Management Plan and Lizard Management Plan should include the approach for communication with WCC and other interest groups as well as WCC involvement in native enrichment planting.
- The regional and national threat classifications used in the ecology assessment did not adequately recognise the site's local significance for both kārearea and kākā.
- Support was given to conditions of consent that covered ecological management plans, proposed offset within Town Belt, avifauna management and lizard management. Given the area's importance as a breeding site for kārearea and kākā, these plans should include measures to avoid, remedy, or mitigate adverse effects on these species, particularly those arising from vegetation clearance, impacts on avifauna habitat, and disruption of ecological linkages between forest areas.
- WCC requested that draft management plans are reviewed by WCC before finalisation, and reporting should be provided to WCC alongside GWRC and DoC.
- WCC has data that can be provided; this includes bird monitoring data on eBird and iNaturalist, as well as data verifying kārearea presence and breeding at the site.
- Additional information was provided by WCC for inclusion in the report regarding fauna within the Project area.

Specialist/NZTA responses and actions

A meeting was held with WCC on 4 May 2026 to discuss feedback regarding Technical Report #10. During this meeting, NZTA confirmed:

- WCC's request regarding engagement with local restoration/community groups was discussed. NZTA noted that community group notification would occur through the project's general communications approach, consistent with the approach used for recent geotechnical works. A specific commitment to consultation with local restoration groups alone was not discussed, and no update to the report was identified as required.
- Mana Whenua have been involved in the development of the Technical Report#10 recommendations.
- Procedural processes within the Management Plans will include project communication and reporting, acknowledging WCC as the landowner.
- Technical Report #10 has been updated to recognise the local significance for kārearea and kākā.
- NZTA acknowledged the information provided by WCC. The report was updated to include the bird-nest check methodology and the methodology for cavity/clearance checks prior to vegetation clearance during nesting season.
- The report has been updated to include a clearer summary of management measures that will be secured through the ecology management conditions.

Lizard Management Plan

Summary of WCC comments

The following additions/changes were sought to the Lizard Management Plan (LMP):

- Ngahere geckos had been observed in the Town Belt area and should be reclassified from "unlikely" to "likely," suggesting a forest gecko may have been misidentified.
- Recommendation that the some of the debris from the cleared site be used for habitat creation in the release site rather than bringing in material from elsewhere.
- The design and implementation of native enrichment planting should be undertaken in collaboration with WCC to ensure efficient and effective implementation.
- The Project Herpetologist to notify Mana Whenua within 24 hours after an injured or dead lizard found.
- WCC as landowner to be noted in the Roles and Responsibilities section, to receive notification at least one month before any lizard habitat clearance, sign off from WCC Parks team on contractor operating procedures, lizard relocation reports to be provided to the WCC Parks.
- Predator Free Wellington to be involved in the implementation of the LMP,

Specialist/NZTA responses and actions

A meeting was held with WCC on 4 May 2026 to discuss feedback regarding the LMP. During this meeting, NZTA confirmed the following updates, which have been made to the LMP:

- WCC to be part of the notification process and added as the landowner in the roles and responsibilities section.
- WCC indicated they would be comfortable acting as certifier for ecology management plans; however, the LMP is not proposed to be subject to certification. NZTA committed to updating the EclA to include a clearer summary of habitat management measures that will be secured through consent conditions.
- The LMP will include the recommendation to reuse the debris from cleared site for habitat creation at release site where practicable and if material is required.
- WCC will receive a copy of the compliance report.
- The LMP confirms that the Project Herpetologist will notify Mana Whenua representatives (Taranaki Whānui ki Te Upoko o te Ika and Ngāti Toa Rangatira) at the earliest opportunity in the event of accidental injury or mortality of native lizards.

- NZTA will develop UDLMP in consultation with WCC, including agreement on design standards and planting schedules.

The following matters were also raised by WCC and addressed during the meeting:

- WCC suggested that Predator Free Wellington be involved in LMP implementation discussions. NZTA noted that Predator Free Wellington is a third party and is not required as part of the approval process; however, predator control was not selected as a compensation. Kororā Management Plan

Summary of WCC comments

The following comments were made regarding the Kororā Management Plan (KMP):

- Instead of installing signage regarding dog restrictions, WCC recommended the installation of information boards to educate the community about kororā. The signage would need to comply with WCC specifications and requirements.
- WCC questioned NZTA's conclusion that nest boxes could not be reinstated within the new revetment due to sea level rise concerns. WCC noted that kororā could successfully use nest boxes for several years before sea level rise directly impacts them and asked whether nest boxes within the new revetment had been considered as an option.
- Capture and handling data reports and the final compliance report be submitted to WCC in addition to DoC and GWRC.
- WCC provided positive feedback on the predator control approach.

Specialist/NZTA responses and actions

NZTA confirmed the following amendments to the KMP:

- The KMP would be updated to include educational signage about kororā rather than just "dogs restricted" signage.
- On reporting, NZTA agreed to update the KMP to ensure WCC receives copies of both the relocation report and the compliance report.
- Regarding nest boxes in the revetment, NZTA's specialist advised that new burrows would be located above sea level rise predictions for long-term outcomes, and that nest boxes above the revetment would better protect kororā habitat from sea level rise and storm surge compared to reinstating burrows within the revetment. The report now has additional information on the nest box design and selection thought process, including consideration of storm surge.

Technical Report #13 Geotechnical, Natural Hazards and Resilience Assessment

Summary of WCC review comments

In the review of Technical Report #13, WCC requested additional information, some to be provided as part of the lodgement document, while other information was recognised as required at the detailed design phase. Additional matters sought to be addressed in Technical Report #13 included:

- The Mt Victoria Eastern Approach - a full stability analysis for cut slopes exceeding 15 metres is required; it should address fault zone material strength, seismic loading with topographic amplification, anchor capacity in fault-disturbed rock, and debris runout analysis for both tunnel portals.
- A full liquefaction triggering and consequence assessment using CPT and borehole data from the current investigation programme should be provided for the Sussex Street trench zone, the SH1 embankment area north of the Basin, and the Cambridge-Kent Terrace corridor. The assessment should include estimated post-liquefaction settlement values, lateral-spreading displacements toward any retained excavations, and the effect of artesian groundwater on liquefaction-resistance calculations.

- WCC geomorphic mapping should be incorporated into the geological and geomorphological characterisation of the study area. Commentary should be provided on the potential effects, or absence of subsidence effects on heritage buildings and structures that may be more sensitive to ground movement.
- The Natural Hazards section should be updated to include consideration of the National Policy Statement for Natural Hazards (2025) and its relevance to geotechnical and subsidence-related risks.

Information requested for the next phase included:

- WCC identified the Terrace Fault zone as the critical geotechnical feature controlling the northern approach cuttings to the Terrace Tunnel. While the proposed high-pressure post-grouted soil nails and anchors were considered appropriate in principle, WCC noted that weak zones within the fault would govern stability rather than overall rock mass strength. Comprehensive stability analyses were requested for the next design phase, including ULS/SLS calculations, groundwater effects, factor-of-safety analyses for cut slopes, and failure-mode assessments.
- Additional detailed geotechnical investigations around the Terrace and Mt Victoria tunnels, including the Terrace Fault and Mt Victoria East Fault crossings, and the Basin Reserve corridor with potential effects of the Aotea Fault, is required in the detailed design phase. Further studies should confirm fault locations, activity classifications, rupture hazard risks, and ground response in detail.
- Further detail will be required regarding the stability of temporary excavations and cuts, with explicit consideration of the local geological conditions and expected ground behaviours during construction.
- The proposed Terrace Tunnel introduces a potential subsidence risk to dwellings located above the alignment, with elevated risk in areas associated with the terrace fault. While mitigation measures have been proposed, some level of subsidence may still occur. Accordingly, the development and implementation of Trigger Action Response Plans (TARPs) will be necessary.
- Construction methodology will be a key factor in mitigating potential subsidence effects and should be thoroughly assessed and justified during detailed design. This assessment should be undertaken alongside evaluation of building tolerance criteria, appropriate monitoring regimes, and contingency measures to manage and respond to ground movement should it exceed predicted levels.

Specialist/NZTA responses and actions

A meeting was held with WCC on 23 April 2026 to discuss feedback regarding Technical Report #13. During the meeting, the following information was confirmed to be provided at the detailed design phase:

- Stability analysis for the Terrace Fault Zone.
- Additional geotechnical investigations around the Terrace and Mt Victoria tunnels, including the Terrace Fault and Mt Victoria East Fault crossings, and the Basin Reserve corridor.
- The future detailed design phase will include:
 - Stability of temporary excavations and cuts based on site-specific data
 - Development and implementation of TARPs
 - Construction methodology and justification
 - Building tolerance criteria, monitoring regime, contingency measures to manage subsidence effects exceeding limits.

Within Technical Report #13 the following amendments and additional information have been included:

- A full stability analysis of the Mt Victoria Eastern Approach has now been provided in the report.
- WCC's geomorphic mapping has been incorporated into the geological characterisation with implications for effects addressed.
- Heritage buildings have been included on the subsidence risk area mapping with specific considerations outlined.
- An identifiable section on liquefaction effects has been included (noting that some content was included previously).
- The Project has been assessed against the relevant NPS Infrastructure policy provisions as the NPS Natural Hazards is not applicable to infrastructure.

In addition, NZTA confirmed the subsidence management plan requirements through the proposed consent conditions. Monitoring requirements have also been included in the proposed conditions set.

Technical Report #14 Groundwater Assessment

Summary of WCC comments

Feedback on Technical Report #14 was predominantly about the Terrace Tunnel. WCC considered that the proposed construction method (open excavation with soldier piles requiring dewatering) poses settlement risks due to deeply weathered greywacke (~60m depth) at the southern portal, which is more compressible than the fresh fractured rock assumed for the main tunnel. Historical works at the Terrace Tunnel caused up to 160mm of subsidence in this area. WCC noted that the “negligible settlement” conclusions were based on limited data with additional hydraulic conductivity testing still underway. It was requested that the groundwater technical report be updated to include further information surrounding the hydraulic conductivity testing.

WCC acknowledged that additional hydraulic conductivity testing was underway for both the Terrace and Mt Victoria Tunnel. It was requested that the results be provided once available and that the settlement assessment be updated to reflect the results.

WCC also requested that a Groundwater and Settlement Monitoring and Contingency Plan (GSMCP) be adopted, including pre-construction baselines, defined numerical trigger levels, surface settlement monitoring, and clearly specified contingency actions.

Specialist/NZTA responses and actions

Regarding the Terrace Tunnel settlement concerns, Technical Report #14 has been updated to include further detail on assumptions, including land-settlement calculation results. Current information and assessment show that compressibility, layer thickness, and groundwater drawdown conditions would not lead to settlement reaching historical magnitudes (160mm).

New hydraulic conductivity data have been provided in the updated Technical Report, and associated assessments and recommendations have been checked.

No GSMCP has been provided at this stage, as trigger levels are still being developed and may change during the detailed design phase. However, a clear description of monitoring and follow-up actions (i.e., Trigger Action Response Plan (TARP) approach has been provided in Annexure D to the Groundwater Assessment report. NZTA considers that the information in Annexure D should be sufficient to address WCC's concern regarding the absence of a GSMCP at this stage.

Technical Report #17 Erosion and Sediment Control Assessment

Summary of WCC review comments

WCC supports the approach taken in the Erosion and Sediment Control Assessment and agrees that the preparation and implementation of site-specific, staged management plans is consistent with best practice and will be required in future consent conditions.

Specialist/NZTA responses and actions

NZTA noted WCC's comment and no update was required.

Summary of GWRC Feedback

Technical Report #5 – Integrated Transport Assessment

Summary of GWRC comments

GWRC was concerned with how public transport was assessed in Technical Report #5 and sought further information about how effects on public transport had been modelled and assessed. A summary of the concerns raised by GWRC regarding the impacts on public transport is presented below.

Construction

GWRC raised concerns that impacts to public transport during construction had been underestimated. These included:

- Ghuznee Street bridge one-way operation will significantly impact routes 18 and 21.
- Basin Reserve construction will severely affect the north-south core bus corridor.
- Hataitai bus tunnel access via Elizabeth Street is critical but impacts are not quantified.
- Limited network redundancy in Wellington means few diversion options exist.
- Proposed mitigations such as increased frequencies and subsidies have not been planned or budgeted by GWRC, and temporary frequency increases aren't feasible due to fleet/driver constraints.
- MacDonald Crescent is unsuitable for buses and could not serve as a viable deviation.

Operational impacts

GWRC also identified issues regarding operational impacts. Post-construction, significant increases in traffic volume are forecast on local roads and key bus corridors – through Kilbirnie, Newtown, Mt Victoria, Taranaki Street, Kent Terrace, and Moxham Avenue. These impacts affect a much broader area. Recommendations made by GWRC include:

- Bus lanes running north-south through the Basin Reserve to support the long-standing objective of a public transport spine.
- Bus priority measures at Hamilton Road/SH1/Kilbirnie Crescent intersection.
- Signal optimisation favouring buses.
- Maintaining public transport performance as a minimum requirement, with public transport prioritised over general traffic where trade-offs are needed.
- Traffic calming on Moxham Avenue should be discussed with Metlink as there are no humps on core bus routes.
- The critical right turn from SH1 westbound to Cambridge Terrace must be retained for future public transport network flexibility.

Tolling

- GWRC sought further information on whether the Project would be tolled and if so, the impacts of this on public transport.

Infrastructure concerns

GWRC identified the following for consideration in Technical Report #5:

- The segment carrying all Miramar/airport buses has the highest Project AM peak volumes but only two shared lanes – an additional bus lane northbound should be considered.
- Long distance coach services using Kent Terrace layout were not mentioned.
- Safe and appropriate speeds for the urban environment have not been adequately considered.

- School bus services and their arrival time requirements were not properly assessed.
- The proposed Mt Victoria tunnel shared path width should consider future active mode use, given surrounding improvements potentially attracting new users.

Specialist/NZTA responses and actions

NZTA confirmed that public transport has been considered through the transport modelling. It was acknowledged, however, that journey time benefits for public transport will not manifest unless GWRC re-timetables services in the model (this is GWRC's responsibility, not the Project's).

Technical Report #5 has been updated with the following:

- Public transport journey times for all key construction phases included.
- Addition of a construction impact assessment for public transport.
- Update on description of impacts on Moxham Avenue.
- Recommendation for maintaining two-way bus movements via contraflow signals for the Ghuznee Street bridge.
- Many construction-related concerns were addressed by reference to proposed conditions, specifically the CTTMP, and the establishment of the NPG to input into design development and manage construction disruption.
- Better reflection of public transport content in the executive summary.
- Clarification of the mode share definitions.
- Inclusion of safe and appropriate speed considerations.
- Reference to patronage and farebox recovery.
- Further commentary on Elizabeth Street and Hataitai access.
- Inclusion of information on long-distance coach services.
- Addition of Kilbirnie travel time information.
- Specification that construction vehicle movements are hourly.
- The inclusion of several traffic corridor impacts under tolled scenarios.

The following technical concerns expressed by GWRC will be addressed through post-FTAA processes as follows:

- Detailed design phase – signal optimisation, SCATS adjustments, bus priority measures.
- Proposed consent conditions – CTTMP for construction management.
- NPG – processes for construction management.
- Future GWRC business cases – public transport network revisions to capitalise on SH1 improvements.
- Cascading public transport network disruption – can be managed in the future through the NPG forum.

Technical Report #10 - Terrestrial Ecology Assessment

Summary of GWRC comments

GWRC stated comfort with the weightings and conclusions of the AEE and offset modelling. In addition, they provided feedback and additional information for consideration in the report which included:

- GWRC bird data collected annually from Wellington City Forest since 2011 that should be considered in the assessment.
- Bats, invertebrates, non-vascular plants, and reptiles have been poorly investigated by the specialist or do not have the necessary targeted sampling methods. Further investigations are required, particularly for invertebrates and non-vascular plants.

- Concern that the area proposed for offset planting within the Town Belt may not be appropriate, as the 12ha area has existing regenerating bush and would not be a replacement for lost ecosystem extent.

Specialist/NZTA responses and actions

A meeting was held with GWRC on 4 May 2026 to discuss feedback regarding Technical Report #10. During this meeting, NZTA confirmed:

- Technical Report #10 would be updated to include the Wellington City Forest Bird Data.
- A stop work procedure has been included in Technical Report #10 regarding the discovery of unexpected or threatened invertebrate species. Vascular and non-vascular plant species will also be surveyed pre-construction.
- NZTA and its advisors are comfortable that the assessments carried out in respect of bats, invertebrates and reptiles are sufficient.
- Offset options for the Town Belt works primarily focus on areas where exotic trees are removed and replaced with native trees, which is additional work beyond the area disturbed by the Project and is therefore considered an offset. There have been no changes to Technical Report #10 in this regard.

Technical Report # 11 Ecology - Freshwater and Wetland Ecology Assessment

Summary of GWRC comments

GWRC agreed with the assessment regarding the losses of wetlands 1 and 4, noting that the methods used to determine wetland presence were appropriate, the offset calculations were sound, and the site of an initially proposed offset area was satisfactory.

However, GWRC raised concerns about wetland 2, which was initially assumed to be avoided by Project works. GWRC noted a discrepancy between the ecologist's and hydrologist's assessments. The draft ecological report stated that temporary groundwater drawdown would be within natural seasonal variability; however, the draft hydrology report stated that a nearby road cut slope would cause a high impact during the operational phase and a moderate impact during construction. While spray irrigation was available as a mitigation measure during construction, the permanent drainage effects from the cut slope are acknowledged but not adequately addressed in the ecological assessment. GWRC requested more detailed models and plans regarding the effects on wetland 2 post-construction in order to assess the adequacy of mitigation.

Specialist/NZTA responses and actions

NZTA subsequently undertook further investigation into the groundwater impacts on wetland 2 and updated the report to reflect a maximum-effects approach, with the revised assessment and the assumption that wetland 2 will be permanently impacted. These changes include clearly describing the permanent wetland/cut slope hydrological effects, the calculations for the impact of permanent drainage/flow loss, confirmation of the consent approach for potential permanent wetland loss, and alignment of the ecology and hydrological report.

Following the pre-lodgment engagement, it was also determined that an initially proposed offset wetland within the Project area was not expected to be feasible (this is addressed in more detail in Technical Report #4 – Design Assessment). Offsite offset options were investigated and no suitable option was identified. A compensation recommendation has therefore been included in Technical Report #11.

Technical Report #12 Marine Ecology Assessment

Summary of GWRC comments

GWRC generally agrees with the conclusions and mitigation presented in the technical report. However, more detail was requested on the proposed 'zone of influence' (ZOI) for stormwater outfalls,

particularly regarding how these were determined and the justification that contaminants are unlikely to cause harm outside the ZOI limit. GWRC was also concerned about construction-related discharge in Evans Bay, given the presence of *Adamsiella* beds and Horse mussel beds, and that the marina and its breakwater are likely to restrict mixing and dilution.

Specialist/NZTA responses and actions

NZTA has updated the Technical Report #12 with further detail on ZOI methodology. This also addressed concern regarding the Evans Bay discharges.

Kororā Management Plan

Summary of GWRC comments

GWRC acknowledged that the Kororā Management Plan (KMP) reflects principles for standard management of Kororā, particularly regarding noise management. Feedback provided also included:

- Request that the location of the kororā burrows and nest monitoring be reported to GWRC annually for their records and not just in the project completion report at the end of the five-year monitoring period.
- DoC to be involved in decisions on the relocation of kororā as well where injured birds are taken for treatment, so that it is not just a decision for the Project's suitably qualified person (SQP).
- Confirmation that the location of the new outfall pipe design would prevent kororā from accessing it.
- Clarifications on actions if kororā have not occupied the nesting boxes by the end of the five years of monitoring. Furthermore, GWRC stated that five years is a short time to maintain the boxes for, and that as this is a permanent change to their habitat, it should be reflected in a longer commitment to ongoing management.

Specialist/NZTA responses and actions

NZTA has confirmed the following response to the feedback received on the KMP (and the KMP has been updated accordingly):

- Location of the kororā burrows and the nest monitoring will be reported to GWRC, DoC, WCC, and Places for Penguin annually and this has been updated in the KMP.
- DoC will be notified within 24 hrs of penguin relocation, or where the SQP believes additional input is warranted, but not prior to every action being taken.
- Regarding bird injuries, DoC usually uses Massey Wildlife Hospital in Palmerston North for more complicated injuries; however, this is 2.5 hrs away, which could create welfare issues, so DoC are usually comfortable with using Wellington Zoo. Notification to DoC within 24 hours is deemed sufficient, and any pre-consultation with DoC should be at the SQP's discretion. No changes to the KMP have been made on this matter.
- The design of the outfall pipe cannot exclude kororā; however, ecologists previously undertook a risk assessment with the design team and confirmed there is no recessed sump risk.
- The KMP has been updated to clarify the "intended outcome" for monitoring, which is that the burrows will on average meet the value as described in the assessment report. Monitoring will also align with maintenance (including fencing and signage), nest box integrity checks, and planting establishment checks which can identify likely drivers and provide physical solutions within Project control. Monitoring will also be required to ensure that these factors are not adversely influencing outcomes.
- The KMP has been updated to include commentary on plans for long-term box maintenance in partnership with Mana Whenua and community groups.

Technical Report #14 Groundwater Assessment

Summary of GWRC comments

GWRC had sought a number of clarifications regarding Technical Report #14, these included:

- Clarification regarding bore numbering and confirmation whether one of the bores is abandoned.
- Confirmation of whether the cut slope activity is incorporated into the flow loss calculation for the wetland or assessment of the permanent impact this will have on the wetland or the hydrology.
- Clarification on the calculation of the impact of the baseflow of the Kumutoto Stream and Ruahine Street wetland, and confirmation of the definition of “low”. A 5-15% loss is considered by GWRC to be more than a minor effect.
- Information required regarding the hydrological impact of the cut slope on the wetland described. GWRC expressed concern that without hydrological monitoring of the wetland in Technical Report #14 it is difficult to assess the impact under different seasonal conditions.
- Request for more detail in Annexure C regarding stream depletion calculations, including whether streamflow will return to pre-construction levels once the works are complete.
- It was requested that a Groundwater and Settlement Monitoring and Contingency Plan (GSMCP) be provided rather than the detailed requirements within a consent condition.
- Request for further detail on spray irrigation, including how it will be undertaken and monitored, and whether there are any ecological impacts of spraying water in comparison to natural flow. GWRC also queried whether mitigation is required for the flow loss resulting from the cut slope.
- Clarification was requested regarding the groundwater contaminants that will be tested for, due to confusion with references to drinking water standards and stormwater requirements.

Specialist/NZTA responses and actions

The following amendments have been made to Technical Report #14 following feedback received:

- Bore numbers have been reviewed and updated.
- Permanent wetland/cut-slope hydrological effects have been described, and calculations for permanent drainage/flow loss impact have been added to the report. The consent approach for potential permanent wetland loss has been included to align with ecology and groundwater reporting.
- The definition of ‘low’ baseflow has been provided, and how it corresponds to % loss categories used elsewhere.
- The GSMCP framework has been included, as well as monitoring types and the approach taken. The monitoring will be specified by work area/location and monitoring frequency. Management objectives and requirements have been embedded in proposed consent conditions.
- The groundwater chemistry testing suite has been included and is in accordance with ANZ 2018 guidelines. The pH/degassing pathway has also been confirmed which is addressed in the proposed consent conditions.

Regarding GWRC’s comments about the wetland cut slope, this is no longer relevant as further work has been completed which now demonstrates that the wetland cannot be avoided as detailed in Technical Report #4 Design Assessment. As the wetland is unable to be avoided, compensation is now proposed.

In relation to Annexure C, the stream depletion from the temporary dewatering was assessed by 2D cross sectional numerical modelling, which also calculates groundwater outflows at the surface of the wetland. The assessment has been updated to include further details and a graph showing this.

NZTA clarified that the intention of spray irrigation was to mitigate construction phase effect on wetland ecological values. Since it has now been confirmed that permanent loss of the wetland will arise, there is now no proposal or requirement to mitigate via spray irrigation during the construction phase.

Technical Report #15 Stormwater Assessment

Summary of GWRC comments

In undertaking a review of Technical Report #15 Stormwater Effects, GWRC requested further information in order to determine whether the proposed stormwater treatment measures would constitute a Best Practical Option and result in a net improvement to stormwater discharge quality. Information requested by GWRC included:

- A stormwater layout plan showing the location of the proposed treatment devices and associated catchment areas for each.
- Stormwater treatment device layout plans showing how the minimum footprint will be accommodated, along with maintenance access, turning/loading areas, and other requirements.
- A design statement outlining the design philosophy and criteria used for the design of stormwater treatment systems (with supporting design calculations) to demonstrate compliance with the relevant stormwater design guidance documents mentioned above.
- An operation and maintenance plan detailing ownership and responsibilities, routine maintenance frequency, non-routine maintenance requirements, access, safety, and other considerations.
- Contaminant load modelling data and calculations to be made available as part of the pre-application documents so that conclusions around contaminant reduction can be verified.

GWRC also raised concerns about the scope of the stormwater management proposal, requesting that hydrological controls be considered in accordance with GWRC's Hydrological Control Guidelines. Sections of open watercourse should also be clearly documented (including any opportunities for stream daylighting, should these exist).

Specialist/NZTA responses and actions

A meeting was held with GWRC on 28 April 2026 to discuss the feedback on the report. NZTA confirms the following updates to this report, which have included:

- The area being treated and the approximate size of the treatment has been updated and included in written and mapped form.
- The proposed consent conditions provide that the detailed design of the stormwater treatment devices, including specifications, drawings and a design report, will be submitted to GWRC for certification.
- A general maintenance summary for each proposed device type (inspection, cleaning, debris, management, access), as well as maintenance access and feasibility at a conceptual level, acknowledging site constraints.
- Static output summarising the key modelling inputs and results, and a dynamic link to the model was provided to GWRC.
- Further information regarding the nature of stormwater discharges, the lack of freshwater discharges, and demonstration that it is unfeasible to daylight the piped network.
- A stormwater maintenance plan will be prepared post consent approval, once the detailed design information is confirmed.
- As stormwater runoff from the Project will only be discharged to the piped network and then directly to the harbour coastal environment, no part of the stormwater network is an open channel. Therefore, as there will be no discharges to freshwater bodies, no mapping of open watercourses or hydrological control is required.

Technical Report #16 Soil Contamination Assessment

Summary of GWRC comments

While provided as part of the pre-lodgement review, no assessment of Technical Report #16 was undertaken by the reviewer engaged on behalf of WCC and GWRC. The reviewer was concerned that the associated Preliminary Site Investigation (PSI) attached to the Technical Report did not meet the requirements of CLMG No.1 and required updates before being considered adequate. The key issues identified were:

- No Suitably Qualified Experienced Practitioner certification statement was included in the PSI.
- Certificates of Title were not appended and so it was unclear if they had been reviewed.
- Receptors (construction workers, end users, recreational users, environmental features) were not clearly defined.
- Pathways for contaminant exposure (inhalation of dust/asbestos/vapour migration through service trenches) were inadequately addressed.
- The Source Pathway Receptor (SPR) assessment methodology was confusing.
- Presentation of information from Council property files was requested to be set out in dedicated sections rather than throughout report.

Several potentially contaminated sites within or adjacent to the Project area were not adequately considered:

- Tunnel control buildings for both Terrace and Mt Victoria tunnels (potential asbestos, transformers – HAIL B2).
- Sports fields including the Basin Reserve and Hataitai Park (potential HAIL A10).
- Electrical transformers visible in photos but not assessed.
- Adjacent petroleum sites such as Mid-City Auto Repairs and Te Papa's storage facility required further review.
- Kelburn Park landfill – potential for leachate during tunnelling was not considered.
- Culverted streams in the Project vicinity should have been mentioned as receptors.

Further technical issues were identified:

- Adjacent site assessment – the PSI dismissed contaminated risks from adjacent sites too readily, relying only on GWRC SLUR data without reviewing WCC property files or considering migration through service trenches
- Historical contamination reports – reports from Terrace/Mt Victoria tunnel upgrades (early 2010s), Arras Tunnel construction, and Bogarts Corner tank removal should have been reviewed.
- Non-HAIL contamination – unclassified fill, road verge soils, and coal tar potential were identified; however, management approaches for weren't adequately specified.
- No DSIs were completed, meaning Rules R81-R83 under the Natural Resources Plan could not be properly assessed; Rule R83 (discretionary activity) would likely apply.

Specialist / NZTA responses and actions

NZTA agreed to update the PSI to address all comments and improve clarity and confidence regarding the PSI's findings.

The Suitably Qualified Experienced Practitioner certification has been added to both the PSI and the Technical Report as recommended by GWRC to align with Appendix C of CLMG 1.

The PSI report has also been revised to provide greater clarity on the land affected by the Project and the nature of ground disturbance works to be undertaken (Section 3 and Section 7 of the PSI). This includes discussion of services to be constructed within the carriageway south of the Terrace Tunnel and in Ruahine Street. Section 4 of the PSI has been updated to provide a more detailed discussion

of piped streams within the Project area, with further discussion in Section 11 of the potential effects of ground disturbance works for the Project on these piped streams.

Section 5 of the PSI has been updated to clarify the methodology used to assess the effects of disturbance to contaminated land for the Project, including further discussion of the SPR process and specific pathways and receptors to be considered. The updated PSI now specifically identifies human receptors (such as construction workers, end users, and recreational users) and environmental receptors (such as surface water bodies and ground water sources). Pathways now specifically include discharges of contaminants from adjacent land typically via preferential pathways such as service trenches into ground to be disturbed by the project. The assessment also addresses potential exposure pathways including inhalation of dust, asbestos fibres, and vapours, as well as migration through service trenches.

. This is particularly relevant for the Te Aro section, where HAIL land uses have included, or currently include, the storage of hazardous substances, particularly petroleum hydrocarbons. Additional data has been compiled in the updated PSI for immediately adjacent sites with petroleum hydrocarbon storage records, such as Mid-City Auto Repairs (adjacent to Vivian Street) and Te Papa's Natural Environment Wet Collection. Consideration of these HAIL sites in relation to the location and nature of proposed ground disturbance works is discussed. No significant issues have been identified. Management via an unexpected discovery protocol is recommended.

- Section 6 of the PSI has been updated to further describe the information sources used to identify contaminated land within the Project area. This section now includes a new subsection covering 'Other Information Sources', with information from Council property files consolidated in dedicated sections rather than dispersed throughout the report. The new information includes: Observations from site walkovers and drive-by inspections which identified two berm side electrical transformers (HAIL B2)
- Information from NZTA on the presence of asbestos (no record)
- Identifying transformers in the northern and southern control buildings of the Terrace Tunnel (HAIL B2) including those visible in photos (such as Appendix A photo 8) and within tunnel control buildings.
- Contaminated land reports documenting the proposed Mount Victoria Tunnel Duplication and the Basin Bridge projects dated 2013 and the Memorial Park (Arras Tunnel) project dated 2012. One additional HAIL site was identified based on these reports: the location of a former underground storage tank at a former commercial site at Bogarts Corner in Section 3, removed in 2012 (HAIL A17). The new information is discussed in Section 9 of the updated PSI.

Section 7 of the PSI presents tabulated descriptions of the location and nature of SLUR sites identified within the Project area. The tables include information descriptions as recorded on the SLUR. Additional information from council files was obtained for those SLUR sites where an initial assessment using the methodology described in Section 5 of the updated PSI indicated a potentially complete pathway. This information is summarised under the 'additional information' column in the tables. The referenced reports and information are included as attachments to the PSI. Additional information reviewed included Certificates of Title for some sites; however, little information of value to the assessment of effects was obtained from review of these. Selected Certificates of Title are included in the additional information attached to the PSI.

The HAIL status of the Basin Reserve, Hataitai Park, and school sports fields has also been specifically assessed and those sites have been found not to be HAIL. The report has been updated as required, noting that ground disturbance for the Project will not affect the Basin Reserve.

NZTA understands that Kelburn Park landfill operated for 10 years and closed in 1935, and is classified as low priority by GWRC. The potential for leachate from the landfill during tunnelling was considered in the PSI, and the SPR linkage was judged incomplete based on the nature of the fill and the landfill's closure date. Groundwater sampling from deep wells near the proposed new Terrace Tunnel has now been undertaken to assess groundwater contaminants, including leachate indicators, to inform dewatering controls. No leachate in groundwater was detected, confirming that its effects are Negligible. This information is documented in Technical Assessment #14, Groundwater Assessment, and is also addressed in Technical Assessment #16, Soil Contamination Effects.

The updated PSI and Technical Report now include recommendations for the management of contaminated soil from all sources generated during the Project works. This includes management approaches for non-HAIL contamination such as unclassified fill (from beneath pavements, retaining wall backfill, and reclamation materials), Ruahine Street road verge soils, and potential coal tar. For coal tar specifically, a management plan has been proposed. For unclassified fill and road verge soils, management controls are detailed in the Technical Assessment Report and have been incorporated into the updated PSI conclusions and recommendations. NZTA notes that NES-CS and NRP requirements are discussed in the Technical Report rather than the PSI. DSIs for the Gazley Mitsubishi site and Kilbirnie Park have now been completed. A preliminary assessment of the NES-CS and NRP in relation to these sites, addressing specific receptors, is presented in the updated PSI and is further detailed in the DSI reports and Technical Report.

In addition, the initial assessment of effects for the Gazley Mitsubishi site and Kilbirnie Park has been updated based on the now-completed DSIs.

Other updates include the addition of key street names on drawings and plans and the inclusion of a preliminary list documenting buildings to be demolished, as a trigger for judging the need for building asbestos surveys. The updated application material also includes recommendations for the management of contaminated soil from all sources generated during the Project works.

Technical Report #17 Erosion and Sediment Control Assessment

Summary of GWRC comments

GWRC acknowledged that while the GWRC ESC Guideline is being applied, the approaches are similar to NZTA ESC guidelines. Overall, the guideline framework is considered appropriate by GWRC.

A three-factor toolbox approach addressing erosion control, sediment control, and receiving-environment monitoring is supported. However, GWRC emphasised that site ESC monitoring is equally important to confirm effectiveness, alongside receiving environment monitoring. Adaptive management based on monitoring feedback is also endorsed.

GWRC identified the following concerns with the proposed ESC framework, which comprises a CESMP supported by site-specific ESC plans:

- The CESMP requires a clear purpose and objective statement.
- The minimum requirements list is too prescriptive in certain areas (e.g. specifying filter socks when other catchpit protection options may be more appropriate).
- Site specific ESCPs should be developed for all Project areas, not just the four key areas mentioned.
- The referenced adaptive approach is not elaborated on anywhere in the technical assessment.
- A water treatment plan is mentioned but never defined.
- For larger stockpiles, covering is recommended, but this isn't reflected in the CESMP requirements.

GWRC noted that container-based treatment systems are appropriate for the tunnels, given that sediment and elevated pH are the key contaminants. However, GWRC noted that chemical treatment should be considered for other devices such as sediment retention ponds and settlement tanks, not just the tunnels.

The proposed discharge limits with automated monitoring was considered appropriate by GWRC. However, the following issues needed to be addressed:

- The limits had not been carried through to the recommendations section.
- It was unclear if these are triggers for action or compliance limits.
- TSS is too difficult to measure continuously compared to NTU.
- NTU monitoring is proposed for inspections, but without the corresponding NTU trigger, the benefit is unclear.

Contingency discharge for the wastewater systems is proposed; however, GWRC requested that the Project consider what happens if approval isn't obtained and what limits might then apply. Storage requirements before treatment need to be defined in the CESMP, and the response protocol for non-compliant discharges requires clarity on how potential effects are determined and the timeframe for post-exceedance monitoring.

While the ESCP drawings are acknowledged as being very high level, GWRC identified a number of concerns:

- It is unclear how dirty water treatment units have been sized relative to storage requirements.
- Silt fences show that surrounding areas already enclosed by dirty water diversions would only treat external runoff, which is seemingly redundant.
- Clean water diversions are very conceptual in location.
- The legend references dirty water diversion, which is unclear terminology, and the use of sandbags is noted as not appropriate for larger areas.
- The sump storage capacity for lamella clarifier systems is critical and needs to be specified.

Specialist/NZTA responses and actions

NZTA confirmed that no changes to the report were required regarding the ESC guidelines. The three-factor toolbox approach is accepted, and the report has been updated to explicitly state the intention to establish a site-specific turbidity TSS relationship (using turbidity as a continuous proxy aligned to the TSS limit).

NZTA has updated the report to include clear objectives and a purpose for the CESMP. Rather than specifying detailed, prescriptive solutions, the report has been amended to refer to objectives and desired outcomes, allowing flexibility for alternative solutions that achieve the same goal. This addressed concerns about overly specific requirements.

The report has been updated to clarify that site-specific ESCPs should cover the Terrace and Mt Victoria Tunnels, Basin Reserve improvements, and the cut associated with the Eastern Connections. The report also now includes a table outlining key actions and controls, along with further explanation of the feedback loop approach to adaptive management.

The report has been updated to clarify that stockpiling of material will be within enclosed structures, with only small volumes being uncovered. This addresses the recommendation for covering larger stockpiles. Other updates include clarifications that other methods of treatment, including chemical treatment for sediment retention ponds, settlement tanks, and other devices, should be considered if container-based systems are unsuitable and is subject to bench testing.

The report notes that consideration of any additional storage capacity may be needed, in the event that approval to discharge to trade waste is not obtained. This is also included in the requirements for

the Construction Water Treatment Management Plan. The report has also been updated to clarify storage requirements, noting that systems must be sized to accommodate tunnel water, recirculation, and additional storage needs and is reflected in the proposed consent conditions.

The report has been updated to provide further clarity on how potential effects were determined following non-compliant discharges, timeframes for post-exceedance monitoring, and the relationship between NTU monitoring and TSS triggers. The previously undefined water treatment plan has also been clarified, along with the adaptive management approach.

NZTA confirmed that further details on the ESCP drawings sought are included in the detailed design phase. References to the dirty water diversion clarifier have been reviewed and deleted.

Technical Report #18 Air Quality Assessment

Summary of GWRC comments

GWRC had a number of clarifications and comments regarding Technical Report #18. These included:

- Clarification of whether the cycling and pedestrian facilities in the new Mt Victoria Tunnel will be physically separated from traffic lanes to prevent exposure to vehicle exhaust.
- Request that the assessor undertake a sensitivity analysis for weekend traffic conditions or to provide justification for why weekday traffic can be considered conservative across all sections of the SH1 corridor.
- Confirmation as to whether the stop-start behaviour at signalised intersections through Te Aro, the Basin Reserve and along the Eastern Connections has been considered in Technical Report #18, as there are numerous traffic signals throughout the Project area.
- Confirmation of whether GRAL modelling was considered, and if so, why it was not preferred for this Project. It was also requested that the methodology described in the 1997 Ginzburg and Schattaneck paper be made available and that commentary be provided on the sensitivity of the outputs to the input assumptions used.
- Clarification was requested regarding pre-calculated hourly emissions rates provided by WSP, and how these inputs were derived.
- Request that predicted concentrations be referenced against the WHO 2021 guidelines for comparison purposes.
- Request that the report include an assessment against the 2021 WHO air quality guidelines. GWRC also inquired as to why the NZTA CAU dataset for NO₂ background concentrations was used, and how the NO to NO₂ atmospheric conversion was accounted for in the modelling (including the methodology for combining CALPUGG and CAL3QHCR model outputs).
- Request the anticipated construction timeframe for each Project section to assist in evaluating the cumulative significance of dust exposure. Confirmation was also requested on whether deposited dust gauge monitoring was considered, and if so, why it was not included in the monitoring programme.
- In regard to the Construction Air Quality Management Plan (CAQMP), GWRC requested that this includes a defined trigger action plan, detailing monitoring thresholds, dust suppression requirements and dust management measures.

Specialist/NZTA responses and actions

NZTA confirmed that no assessment of the air quality effects of the cycle/pedestrian path is to be included because there will be full-height screening from vehicle traffic within the tunnel. The specialist assessment has been updated to qualitatively address weekend traffic effects.

NZTA modelled several lower speed scenarios as a semi-qualitative assessment and has updated the report to address stop-start emissions.

NZTA confirmed that GRAL was considered but deemed inappropriate for the volume of traffic through the tunnels. They also confirmed that tunnel emissions rates were provided by WSP in accordance with the 1997 Ginzburg and Schattanek methodology; however, the road emissions rates were calculated through VEPM. Specifically, the tunnel emission rates were provided by WSP as grams per second (g/s), while road emission rates were derived using the Vehicle Emissions Prediction Model.

The report has been updated to provide commentary against the WHO 2021 guidelines. Commentary has also been included as to why the NZTA background concentrations were used for NO₂, with all emission rates being calculated using VEPM. For the CALPUFF and CAL3QQHCR model outputs, the report has been updated to include how the values were calculated.

NZTA clarified that the indicative construction timeframes are provided in the Constructability Report.

Deposited dust gauge monitoring was not considered for the Project because it does not support an adaptive management approach. NZTA explained that the analysis of deposited dust gauges is conducted retrospectively. The proposed real-time PM₁₀ monitoring will enable action to be taken as soon as the trigger levels are reached. NZTA also confirmed that the future CAQMP can include the more prescriptive detail about the information GWRC has requested. It was confirmed that a draft management plan is not required at lodgement and that there will be an opportunity for GWRC input to the CAQMP in due course. A proposed condition requiring a CAQMP has been included and adequately set out what is required to be included in the plan.

NZTA provided the 1997 Ginzburg and Schattanek paper and associated commentary to GWRC and its assessor confirmed their satisfaction that tunnel portal modelling methodology had been applied in accordance with good practice.