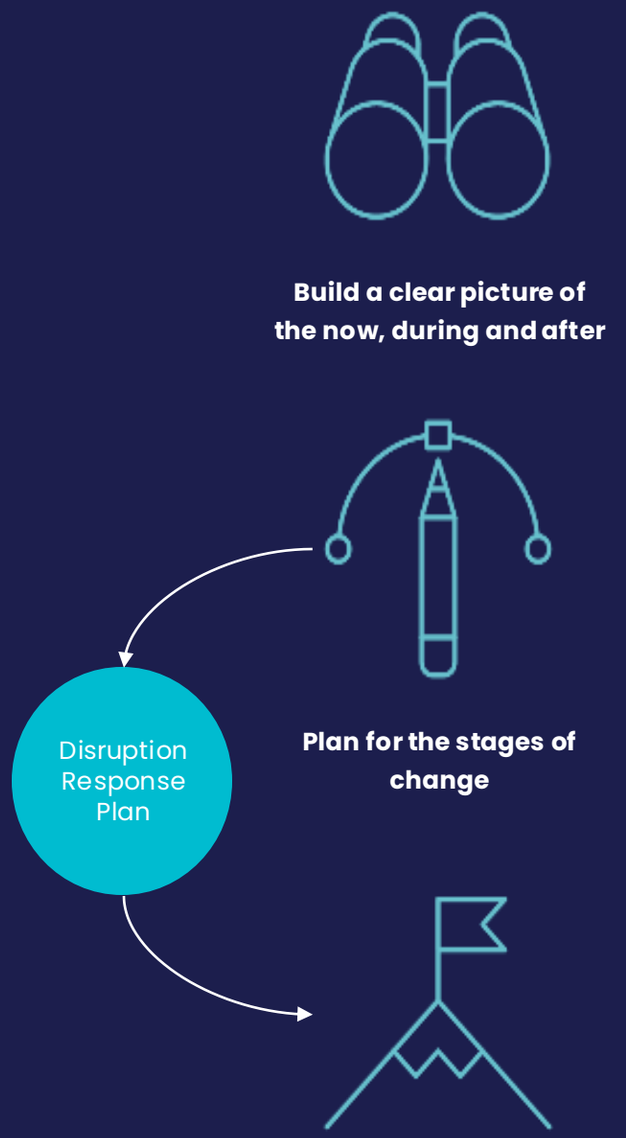
Hutt Valley Construction Disruption Response Plan

REV D

August 2025



Purpose

The purpose of the Disruption Response Plan is to provide a coordinated and strategic approach to managing disruption caused by the timing and scale of projects being delivered in Hutt Central and surrounds, which are intended to enhance the city's transportation, streetscape, and utilities.

It acts as a single source of truth for understanding the scale, timing, and impacts of disruption. The Plan supports the development of tailored mitigation strategies, informed engagement, and clear communication, and provides the governance framework needed for a coordinated response across the various agencies delivering projects. It also aligns disruption response with the city's long-term priorities to provide 'future-fit' infrastructure; enable a liveable city and vibrant neighbourhoods; and support and enhance the environment.

Review Process

The disruption plan, managed by Hutt City Council and covering the period from 2025 to 2031, will be subject to review if there are significant changes to project timelines during this timeframe. Progress will be monitored through monthly reviews, while quarterly reviews will assess the plan's overall effectiveness, taking into account the following:

- Emerging disruption risks or mitigation needs
- Stakeholder feedback and lessons learned
- Performance monitoring and evaluation outcomes

Report contributors

This plan has been developed through a collaborative effort with key partners, including NZTA, Greater Wellington Regional Council, and Te Awa Kairangi representatives. Additionally, valuable input was provided by Wellington Water, Wellington Electricity, KiwiRail, and Upper Hutt City.

QA:
Prepared by: WSP - Shifani Sood, May Chew and Gareth McKay
Document owner: Hutt City Council
Contact: Eddie Anand
Date: August 2025
Version: Rev D

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0. Executive summary

Enabling a Coordinated Response

Traffic modelling demonstrates **that a 10% reduction in car trips to/from Hutt CBD during peak times and a 5% reduction in trips across the wider Hutt City network** will be needed to mitigate congestion and disruption impacts.

This Disruption Response Plan provides a coordinated and strategic approach to managing disruptions from infrastructure projects in Hutt Central and surrounding areas. It outlines measures to keep people informed, offer diverse travel options, manage peak-time car trips in the city centre, and address stakeholder impacts. Proposed actions will inform tailored messaging for people living in and travelling to and through the Hutt Valley. Key mechanisms for managing the anticipated disruption include (Refer to Figure 0.1):

Disruption mitigation activities: This document will inform the operational response to disruptions, ensuring that all stakeholders share a consistent and updated understanding of the situation. It outlines governance frameworks and clarifies roles and responsibilities to enable a coordinated response.

Travel Behaviour Change Activities: The action plan includes targeted activities aimed at encouraging people to change the way they move to and within the city. These interventions align with Hutt City Council's strategic plans for sustainable travel.

Online Hub/Web Platform: A centralized digital resource will provide real-time updates, journey planners, interactive maps, and targeted messages to keep residents informed about upcoming disruptions and available options.

Overarching Communications and Engagement Plan: Led by Hutt City Council, this plan ensures consistency of external messaging across various project delivery streams.

In-Progress Planning Activities: Existing mitigation measures already planned or underway are embedded in the Action Plan to respond to the upcoming disruption.

Development and delivery: This plan has been developed through a collaborative effort with key partners, including NZTA, Greater Wellington Regional Council, and Te Awa Kairangi representatives. The successful implementation of this plan will rely on continued collaboration with these stakeholders.

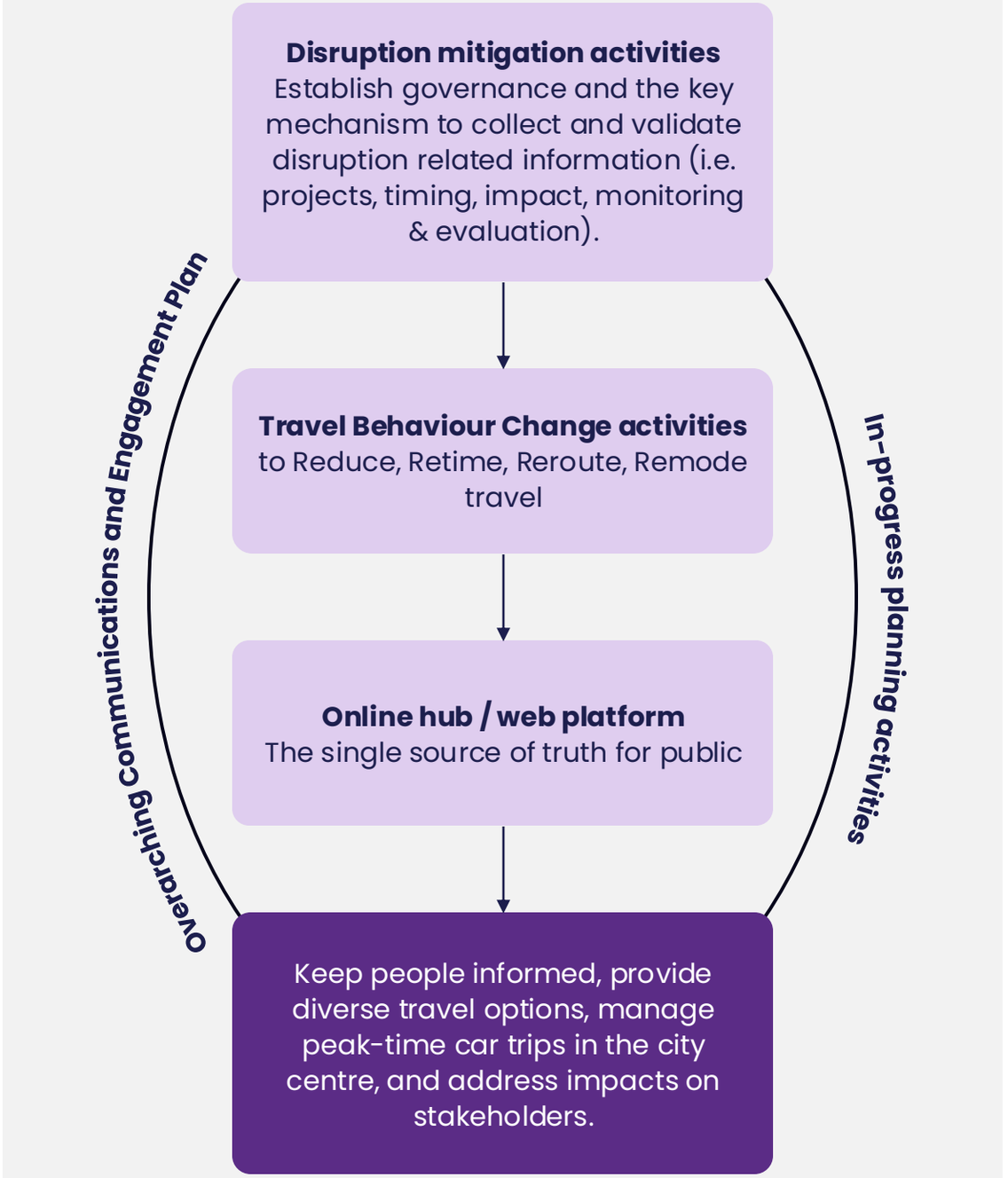


Figure 0.1: Key mechanisms to deliver a coordinated disruption response

Disruption Timing [2025-2031]

To develop a shared understanding of when and where disruptions may occur, a **Gantt chart** was created with input from key stakeholders. Refer to Figure 0.2 for a summary of key projects expected to deliver disruption in Hutt City and surrounds through to 2031. It provides a consolidated, at-a-glance view of **potential overlap and pressure points.**

The Gantt chart brings together information such as activity (by agency/project), type of disruption, start and end dates, and confidence level in the information provided.

Designed as a **live document**, it will need to be regularly updated as project timelines evolve.

Managed by the Disruption Response Resource, reviews will occur monthly or as needed during the Tactical Group meetings.

Unplanned events are inevitable and unpredictable. Fast, coordinated responses will rely on emergency protocols and agreed processes which will be developed as part of the communication and engagement workstream.

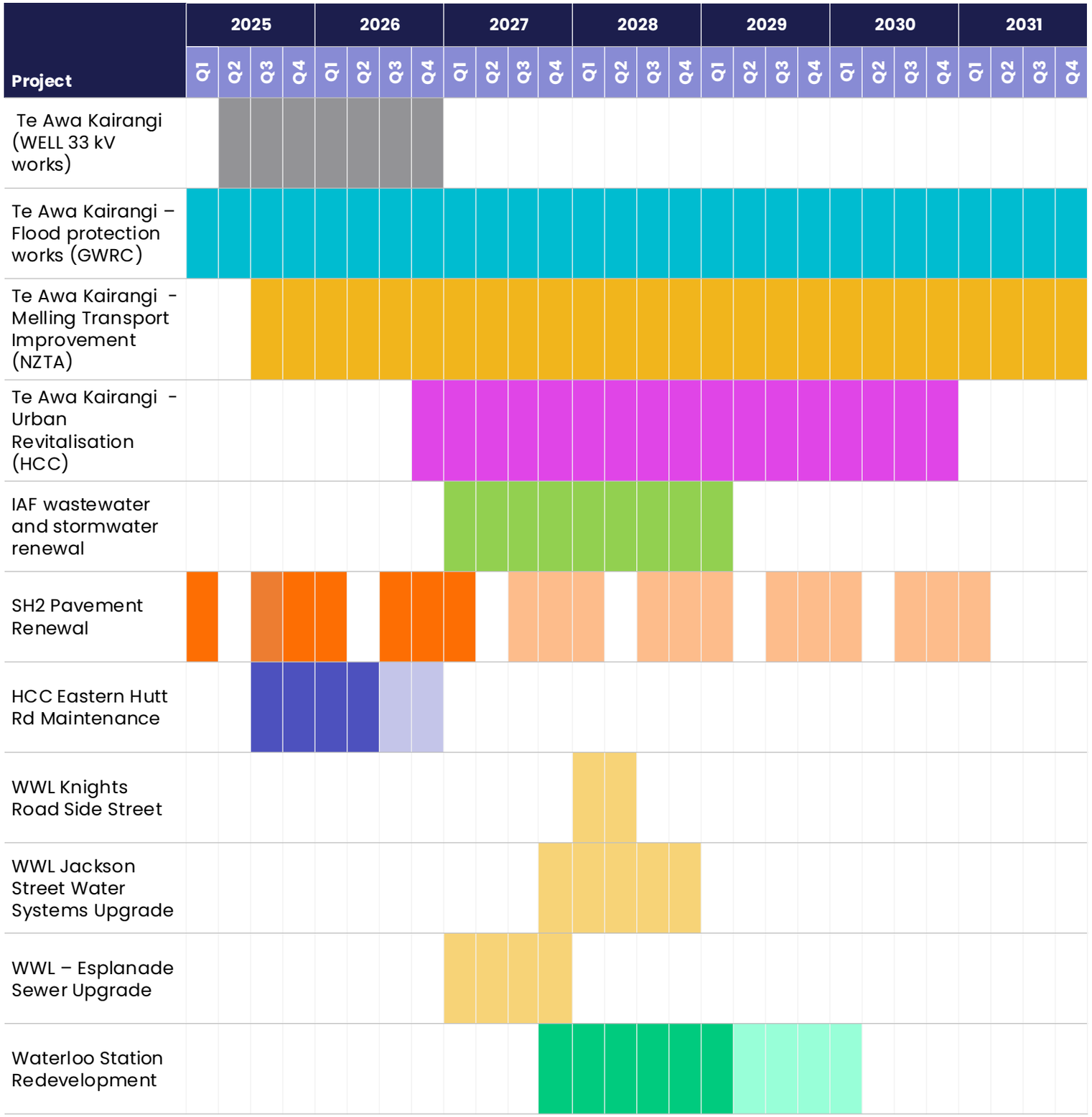


Figure 0.2: Summary of key projects expected to deliver disruption.

Understanding Disruption

Modelling demonstrates that a **10% reduction in car trips to/from Hutt CBD during peak times and a 5% reduction in trips across the wider Hutt City network** will be needed to mitigate congestion and disruption impacts (Test 2).

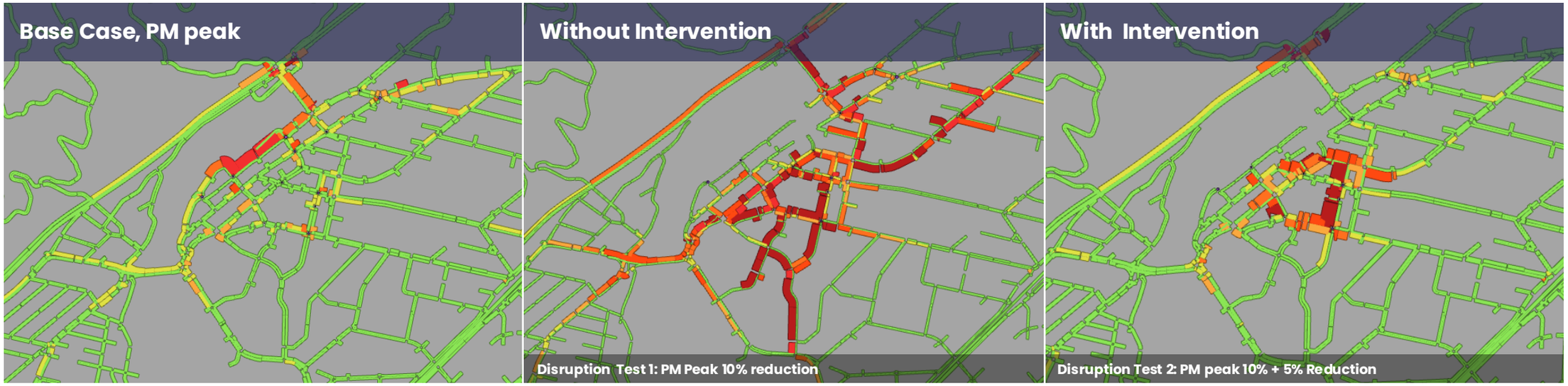


Figure 0.3: Traffic modelling results – 'worst case' at PM peak, undertaken by the Wellington Transport Analytics Unit. Modelling spans between September 2026 and May 2027 when peak disruption is expected.

Traffic modelling using AIMSUN was undertaken to assess the potential impacts of a 'worst case' disruption scenario. The modelling shows that without changes in travel behaviour disruption will worsen traffic congestion in the city centre.

Test scenarios

Two test (plus base case) scenarios were modelled to assess the effects of disruption:

- **Base case:** Level of congestion pre disruption
- **Test 1:** A 10% reduction in car trips to/from Hutt CBD during peak times
- **Test 2:** A combined 15% reduction—10% in Hutt CBD trips and an additional 5% drop across the wider Lower Hutt network (assumes proposed mitigation activities are implemented).

Key Insights

The modelling demonstrates **that a 15% reduction in car trips to/from Hutt CBD during peak times and a 5% reduction in trips across the wider Hutt City network** will be needed to mitigate congestion and disruption impacts (Test 2).

Navigating the Action Plan

All actions within this Plan help deliver one of three key mechanisms: **Response Plan, Behaviour Change activities, or online hub,** in addition to work in already planned/underway.

Work in progress

Multiple planning activities are in progress and are related to implementation actions.

Priority 1 (2025) – 25 Actions

Immediate focus is on activating the Disruption Response Plan, establishing governance, and launching the online hub as a central information source. Key actions include setting up agency protocols, finalising communications plans, and assigning responsibilities. Travel behaviour change initiatives begin with temporary wayfinding, real-time congestion data, micromobility partnerships and public transport response plan actions ahead of Melling Station closure. Business engagement and flexible working support are also initiated, alongside preparation of key supporting plans.

Priority 2 (2026 Q1–Q2) – 11 Actions

This phase delivers business support, promotions, and infrastructure to encourage sustainable travel. Actions include discounted remote working hubs, expanded school cycling programs, and promotional campaigns.

Implementation of the Business Engagement and Transitional Parking Plans continues, with support for local businesses to enhance digital services and delivery options.

Priority 3 (2026 Q3–Q4) – 3 Actions

Focus shifts to long-term mode shift and freight efficiency. Key actions include promoting cycling via Te Ara Tupua, trialling a consolidation hub for deliveries, and managing parking supply through carpooling, carsharing, and prioritised access.

Priority 4 (2027 and beyond) – 2 Actions

Final actions involve optimising CBD traffic routes and reviewing the overall disruption response. This includes signal changes to support rerouted traffic and active modes, and a structured evaluation to capture lessons learned for future projects.

Monitoring and evaluation will be essential for learning. Disruption will peak early, but overtime people will adjust behaviours. Actions must stay flexible and responsive.

Figure 0.4: Overview of action plan

Overview of the Action Plan

	Priority 1: 2025	Priority 2: 2026 Q1&2	Priority 3 & 4: 2026 Q3 and beyond
Disruption Mitigation Activities	1 8 Adopt and socialise Disruption Response Plan & Hire/allocate a disruption response resource 2 Establish information sharing protocols between agencies 3 Create and manage a sharing environment for all project delivery agencies 4 Confirm communications and engagement governance arrangements identified as gaps 6 Agree ownership/lead for each action identified in the Disruption Response Plan [this list] 7 Develop and agree protocols in the Overarching Communication and Engagement Plan 37 Partial Meling line to continue (as opposed to full line closure) 12 Develop key messages for impacted stakeholders based on Disruption Response Plan 13 Develop Overarching Communications & Engagement Plan 16 Carry out monitoring of traffic and rail patronage. Share insights via a dashboard 18 Complete in progress plans (e.g. Transitional Parking Plan) 42 conduct regular customer satisfaction surveys, interviews and observations to monitor public transport user behaviours and needs	22 Deliver City Centre Activations 24 Implement Business Engagement and Communications Plan actions 26 Implement Transitional Parking sites identified in the Transitional Parking Plan	33 Optimise key CBD routes to support rerouted traffic and active modes ▲ 35 Review effectiveness of the disruption response and flex/adapt as needed
Travel Behaviour Change activities	▲ 9 Incorporate walking and cycling times and routes in temporary wayfinding signage ▲ 10 Advocate for initiatives to increase public and active transport uptake ▲ 14 Integrate and communicate real-time congestion data ▲ 17 Establish partnerships with e-bike/e-scooter sharing companies ▲ 20 Engage with businesses to embrace flexible/hybrid working policies 25 Implement active transport and engagement activities 39 41 Engage with impacted Metlink passengers & run an awareness campaign 40 43 Bus routes 145 & 149 to continue to Waterloo station & Provide extra Park and Ride facility in Petone.	19 Install temporary wayfinding, including walking and cycling times & accessible information ▲ 15 Offer locations for remote working/co-working hubs ▲ 21 Identify opportunities to expedite cycleway installation in disruption-impacted areas 27 Deliver Bikes in Schools Program & flex the Pedal Ready Program to cover schools in Hutt City 28 Continue to deliver 'Road Safety' activities around schools 29 Implement Transitional Parking sites identified in the Transitional Parking Plan 30 Run promotional events and packages to encourage uptake of public transport & active modes ▲ 31 Deliver shared micromobility programme & secure parking facilities to promote uptake of cycling post Te Ara Tupua	23 Coordinate with project teams to provide parking alternatives, e.g. promote carpooling, carsharing 32 Trial a consolidation hub to consolidate delivery movements in the city centre. 34 Promote uptake of cycling leveraging new facilities like the Te Ara Tupua for trips between Hutt City and Wellington.
Online web platform	5 Establish online hub/webpage incl agreement on branding and ownership. 11 Develop content and socialise disruption online hub/ web platform		

Legend

Responsible party

- Hutt City Council
- Interagency Groups
- GWRC/ Metlink
- Hutt City Council & GWRC/Metlink
- Project leads

Action

- Action
- Ongoing action
- ▲ Lead/co-lead by disruption response resource [ref action 8]

Figure 0.5: Action plan overview

01. Introduction

A disruption Response Plan for Hutt City

Lower Hutt, particularly Hutt Central and surrounds, is entering a significant period of transformation, with multiple major projects moving into the construction phase over the coming years. While each project will deliver long-term benefits, the cumulative and overlapping nature of these works presents a complex picture of disruption — impacting how people travel, access services, run businesses, and engage with the city.

Currently, there is limited understanding and coordination of the combined impact of these disruptions across projects. Without a clear, consolidated approach, there is a risk of fragmented communication, inconsistent mitigation measures, and diminished stakeholder confidence.

The Disruption Response Plan (the Plan) has been developed to address this need and help Lower Hutt stay moving while supporting people to make informed travel and access choices that work for them, during and beyond disruption. The Plan has several key purposes:

- **To consolidate understanding of disruptions across all projects:** Working in collaboration with the Tactical Working Group, this Plan captures the timing and nature of disruptions creating a shared evidence base for decision-making.
- **To identify stakeholder-specific impacts:** The Plan highlights how different stakeholder groups will be affected by disruption.
- **To inform coordinated mitigation strategies:** The Plan outlines mitigation responses, leveraging best practice examples.
- **To clarify governance, roles, accountability and identify gaps:** The Plan outlines current governance arrangements supporting disruption management including roles, responsibilities, and decision-making authority and identifies where further definition or clarity is required. It highlights what is already in place, what decision-making mechanisms are needed, and where governance arrangements require strengthening to enable coordinated and timely responses to disruption.
- **To serve as the single source of truth for disruption planning and response:** The Plan consolidates disruption-related insights into a single, accessible reference document. It does not intend to replace or duplicate work being delivered by Hutt City Council and partner agencies. Instead, its role is to bring together all information related to disruption, identify gaps, and recommend actions to address those gaps.
- **To leverage this period of disruption and deliver positive long-term benefits for the city's communities:** Disruption, whether caused by infrastructure upgrades, changes in services, or natural events, can be unsettling, but it also presents a timely opportunity. These moments challenge established travel patterns and create a window in which people are more open to considering new and more sustainable ways of getting around. When managed proactively, disruption can be harnessed to accelerate the shift towards active and shared ways of moving in alignment with the City's vision.

  Hutt City Council has committed to halving emissions by 2030 and achieving net zero carbon emissions by 2050. With transport accounting for 56% of the city's total emissions, transformational change is essential. The Integrated Transport Strategy (2022) recognises that meeting these targets will require a significant shift in travel behaviour: reducing reliance on private vehicles and increasing the uptake of walking, cycling, and public transport.

  By aligning Disruption Response Planning with the Strategy's focus areas (shown below), Council can go beyond simply mitigating impacts of disruption to actively promoting positive change. This includes using disruption as a platform for targeted communications, improving infrastructure, and providing temporary incentives that help residents trial alternative modes. In this way, disruption becomes not just an obstacle to overcome, but a powerful tool in shaping a more resilient, connected, and sustainable future for Lower Hutt.

Figure 1.1 : Focus areas, Hutt City Integrated Transport Strategy (2022)

Note: The City Centre Framework has now been refreshed and will deliver streetscape improvements and at the time of writing, Tō Tātou Tāone 2055 - Lower Hutt City Strategy is out for consultation.

Methodology

The development of the Disruption Response Plan was grounded in extensive consultation and collaboration. Input was gathered through workshops, interviews, and working sessions with project delivery teams and council representatives. These conversations helped build a shared understanding of the scale, timing, and cumulative impacts of planned works . The process also helped surface existing initiatives, identify gaps, and shape a set of practical actions to manage disruption in a consistent, people-focused way. Key steps in developing this response plan are shown below.

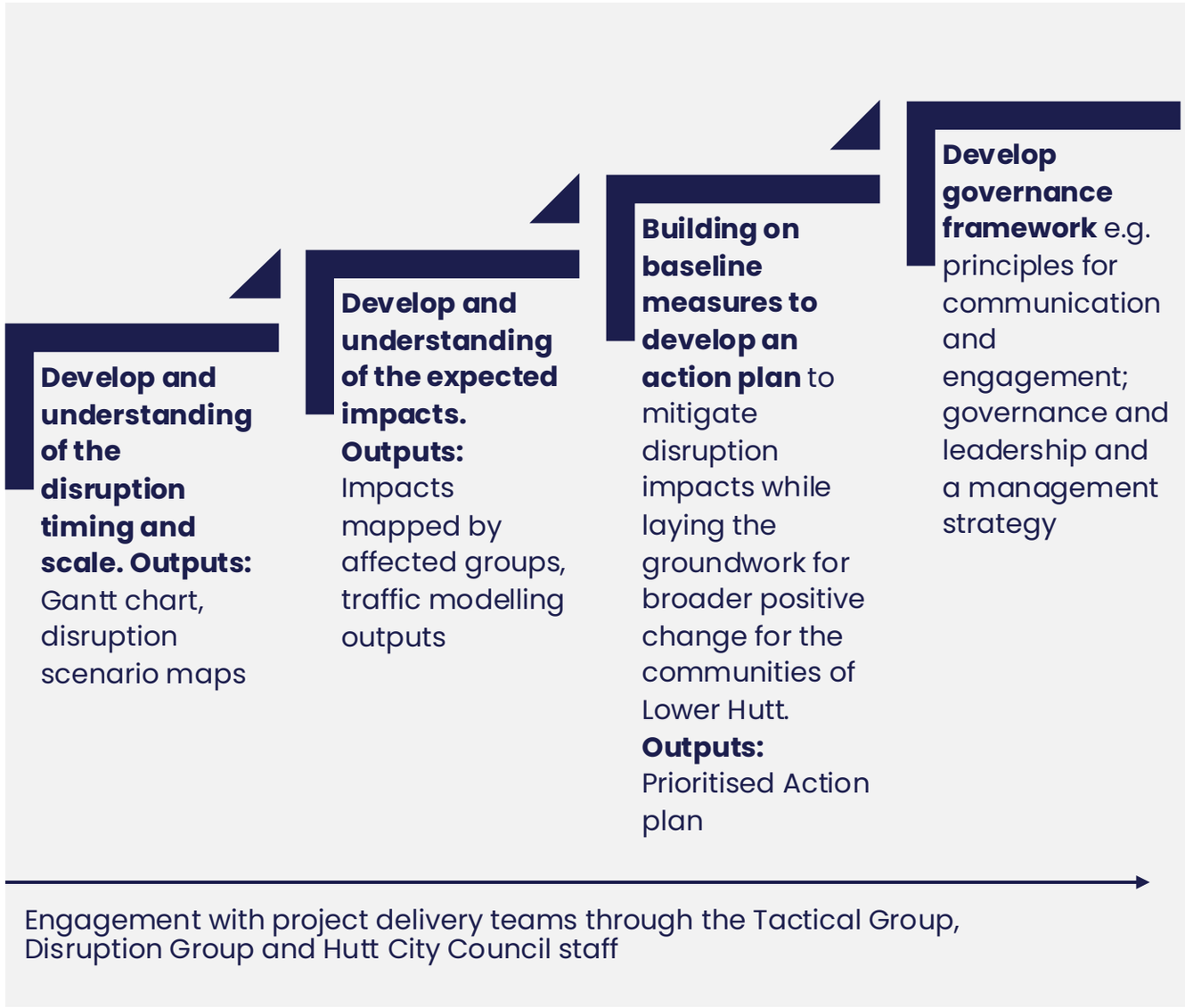


Figure 1.2: Response plan development methodology

02. Current travel behaviour

Current travel behaviour

Census data reveals a shift in travel behavior in Lower Hutt between 2018 and 2023. In 2018, 66% of people travelled to work by car and 20% by train, while 60% of school trips were by car and 23% by walking. By 2023, driving remained the dominant mode for work travel (52%), but there was a significant rise in working from home (27%, up from 7%). Train use declined to 14%, and active transport modes also dropped—with cycling to work falling to 0.3% and walking to 2.9%. Figures 2.1 and 2.2 below provide key insights on how people travel for work.

People travelling to Lower Hutt for work

- Most people travelling to Lower Hutt for work live in Lower Hutt, with Naenae, Petone, Epuni and Wainuiomata being key origins.
- Most people travelling to Lower Hutt for work do so by driving, or work from home.

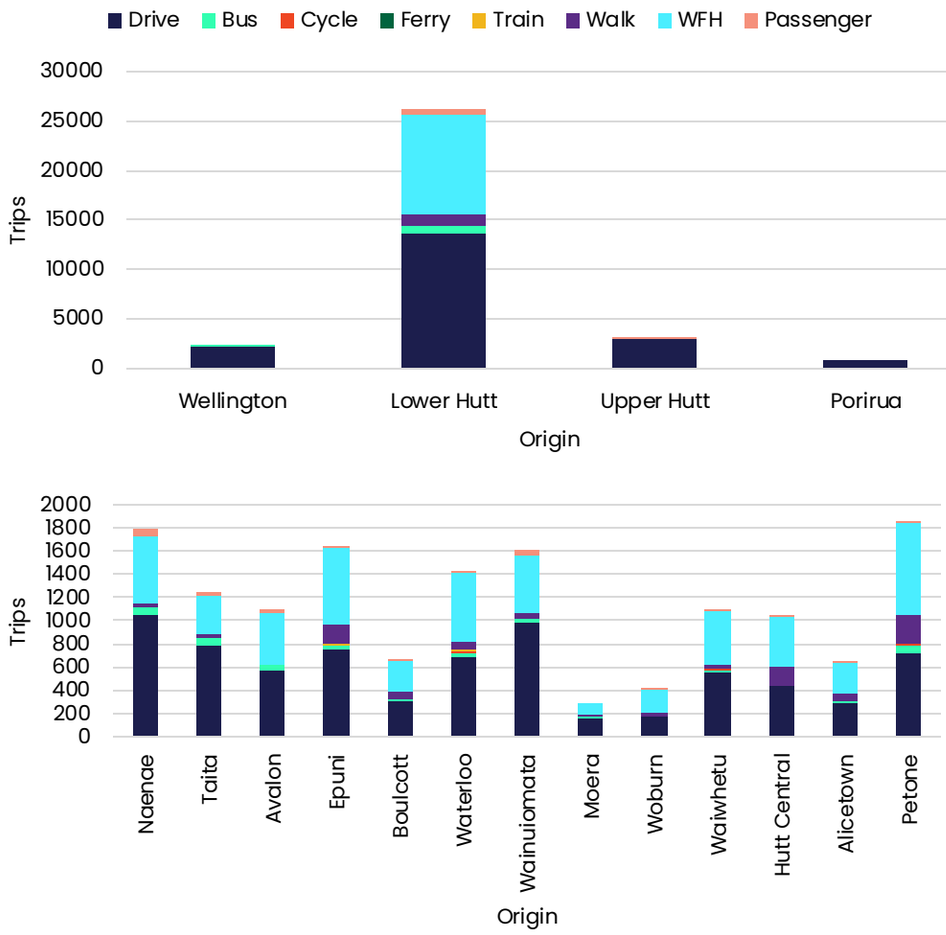


Figure 2.1: Origins of people travelling to Lower Hutt for work 2023 census

People living in Lower Hutt travelling to work

- Most people living in Lower Hutt travel within Lower Hutt for work. This is followed by travelling to Wellington for work.
- People living in Lower Hutt mostly travel to Hutt Central or Petone for work via driving.
- Most people living in Lower Hutt travel to Wellington for work predominantly by train or by driving.

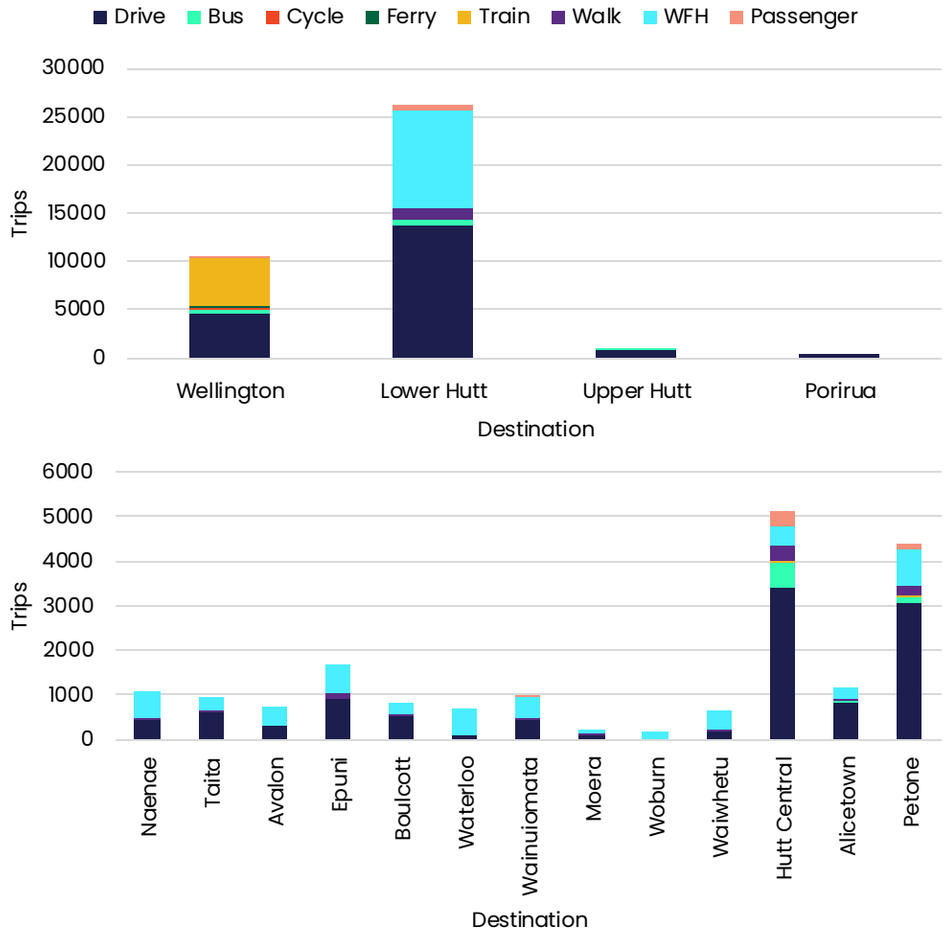


Figure 2.2: Destinations for people travelling from Lower Hutt for work 2023 census

Key Stations in Lower Hutt with planned works

The annual patronage for the Hutt Valley Line (including Melling Line) was approximately 4.3 million in the year ending 2024, with an average daily boarding (weekday) of 14,196. 48% of boardings (6796) are within the Lower Hutt section which includes 11 stations out of 16 on the Hutt Valley Line and 2 additional stations on the Melling Branch (Melling Station and Western Hutt stations).The stations with the highest patronage on the Hutt Valley Line overall are: (1) Waterloo Station; (2) Upper Hutt Station, and (3) Petone Station.[1]

Melling Station

Melling Station provides for 472 (7%) of all Lower Hutt section daily weekday boarding trips and 530 (8%) of all Lower Hutt section weekday alighting trips (2024)[1].

In March 2023 on site observations were undertaken in the morning to further understand customers' use of the station:
- over 90% of passengers come from the Western Hills
- the majority of boardings occurred in the peak period (prior to 9am).[2]

Approximately 65% of passengers used the Park & Ride facilities; with the Melling Station carpark (187 spaces, representing approximately one-tenth of all Park and Rides spaces available across Lower Hutt section stations) reaching capacity between 8.00am-8.15am; and the Block Road carpark (46 parks) reaching approximately 80% capacity.

Of the remainder of passengers approximately:
- 17% passengers each morning arrive by bus (Route 145)
- 9% passengers arrive each morning by 'kiss and ride' (dropped off)
- 8% passengers arrive each morning by walking
- 1% passengers arrive by bicycle[2].

Waterloo Station

The station is currently used by a weekday average of 14,500 passengers per week and is the third busiest station on the Wellington rail network. In 2021, Waterloo Station provides 2,392 (16%) of all Lower Hutt section daily weekday boarding trips and 2,752 (16%) of all Lower Hutt section weekday alighting trips[3]. The majority of boardings occurred in the peak period (prior to 9am).

Based on a 2017 Park & Ride study[4]:
- over 19% of people using the Waterloo Station Park & Ride travelled from Avalon, and 15% from Wainuiomata

Approximately 34% of passengers used the Park & Ride facilities; with the Waterloo Station park & ride (788 spaces, the largest Park & Ride facility across Lower Hutt section stations)[4] reaching 85% occupancy rate before 7:35AM[3].

Of the remainder of passengers approximately[4]:
- 41% passengers arrive each morning by walking
- 7% passengers arrive each morning by bus
- 7% passengers arrive each morning by 'kiss and ride' (dropped off)
- 6% passengers drove and parked elsewhere.
- 5% passengers arrive by other modes including bicycle[3].

Waterloo Station also serves as a bus interchange, with an average daily boarding of 465. The key bus lines are 121, 130, 150, 160 and 170, providing connectivity to Stokes Valley, Petone, Naenae, Kelson and Wainuiomata[1].

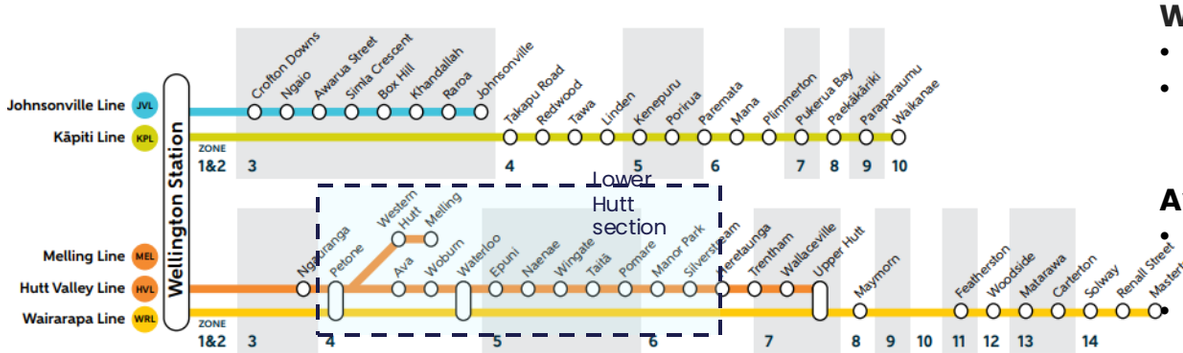


Figure 2.3: Melling Branch and Hutt Valley Line overview

Planned works at above stations may impact on patronage at other stations:

Western Hutt Station
- Average weekday boardings for February 2025 at Western Hutt Station was 107.
- Morning site observations in March 2023 showed the majority of boardings occurred in the peak period (before 9am). In the absence of Park & Ride facilities, passengers arrive by 'kiss and ride', bus, walking and cycling.[2]

Ava Station
- Ava Station, on the Hutt Valley Line, is relatively close to Western Hutt Station and provides a convenient alternative for people in the Melling and Alicetown area.[2]
- There is no Park & Ride facility at Ava Station, however, on-street parking is available.

1. Information provided by Metlink
2. Greater Wellington (2025) Te Wai Takamori o Te Awa Kairangi (Riverlink) Construction Impact on Public Transport Services – Update
3. Wellington Transport Analytics Unit (2022) Lower Hutt Station Access Evidence Base
4. Information provided by Metlink based on a 2017 Park & Ride study

03. Understanding the disruption

Key projects contributing to disruption

Several agencies are responsible for delivering a range of major infrastructure and development projects across the Hutt Central and surrounds.

These projects vary in scope, timing, and impact, but collectively will contribute to a significant period of disruption.

The key projects and their lead delivery agencies are outlined here to provide a clear picture of the key projects to provide an indication of the scale of the coordinated response required.

Of particular note is the Te Wai Takamori o Te Awa Kairangi (Te Awa Kairangi) - a partnership between iwi Taranaki Whānui ki Te Ūpoko o Te Ika, Ngāti Toa Rangatira, Greater Wellington Regional Council (GWRC), Hutt City Council (HCC) and NZ Transport Agency Waka Kotahi (NZTA).

Due to the scale and complexity of Te Awa Kairangi, a Coordinated Delivery Plan has been developed to communicate partner construction schedules and highlight key milestones, interfaces and timings to enable mutually successful delivery.

Disruption mapping and management will need to be updated as the Coordinated Delivery Plan changes as majority of the disruptions within this Disruption Responsee Plan is attributed to Te Awa Kairangi.

Table 3.1: Key projects contributing to disruption in Hutt Central and surrounds

PROJECT		DESCRIPTION	DELIVERY AGENCY
Te Awa Kairangi	Melling Transport Improvement	The Melling Transport Improvement projects provides a range of transport upgrades including: • A new grade-separated State Highway 2 Melling interchange • New Melling Bridge over Te Awa Kairangi / Hutt River, connecting the interchange to the Lower Hutt CBD • Relocation of Melling station and park & ride facilities • Local road upgrades	NZTA
	Hutt River Flood Protection	The flood protection project for Te Awa Kairangi/ Hutt River aims to enhance flood defences and resilience by raising stopbanks and widening the river channel to 90 meters. Additionally, a wetland will be constructed in Belmont within the river corridor.	GWRC
	Lower Hutt City Revitalisation	• A new pedestrian bridge (City Link Bridge) • A riverbank park • Reinstating the riverbank car park • New cycleways and pedestrian pathways, and provide street-level improvements • A development site connecting to the new river edge	HCC
	Others	Relocation of 33kV cable	WELL
IAF Water Infrastructure Upgrade		Major water infrastructure upgrades including pipelines, pumping stations, and storage tank to support future housing.	HCC
Wellington Water Works		Wastewater upgrades around Knights Road side streets; Jackson St pipe renewals project; Sewer upgrade on The Esplanade.	Wellington Water
Others projects in Hutt Central		Eastern Hutt Road Maintenance – Hill side stabilisation of Eastern Hutt Road between Stokes Valley and Fergusson Drive.	HCC
State Highway 2 Renewal Works		Pavement and infrastructure renewal works on sections of State Highway 2, typically involving night works only.	NZTA
Rail upgrades		Works on the rail network, substation upgrades	KiwiRail
Waterloo Station Redevelopment		Waterloo Station will be redeveloped as an integrated transport hub for the Hutt Valley.	GWRC (Metlink)

Disruption timing [2025-2031]

To develop a shared understanding of when and where disruptions may occur, a Gantt chart was created with input from the Tactical Group and project delivery leads. This tool captures and coordinates anticipated disruption across all active and upcoming projects between 2025 and 2031.

Input was obtained directly from project representatives to document planned activities, locations, and the likely nature of disruption. The Gantt chart brings together the following information, activity (by agency or project); type of disruption; start and end dates; and confidence level in information provided (low, medium, or high).

The Gantt chart provides a consolidated, at-a-glance view of potential overlap and pressure points. Designed as a **live document**, it will need to be updated as project timelines evolve and disruption scenarios become clearer. Managed by the Disruption Response Resource, reviews will occur monthly or as needed during the Tactical Group meetings.

Update frequency: The chart will be reviewed and updated bi-weekly during Tactical Working Group meetings, or as required when significant changes occur.

Link to live Gantt chart: Refer to Figure 3.1 for an overview of projects expected to deliver disruptions through to 2031.

Key activities from these projects are outlined overleaf to demonstrate that significant activity is initiated between now and 2028. This period of concentrated activity will be followed by a phase where many of these projects have been delivered, easing pressure on the network and improving conditions for people moving around the city.

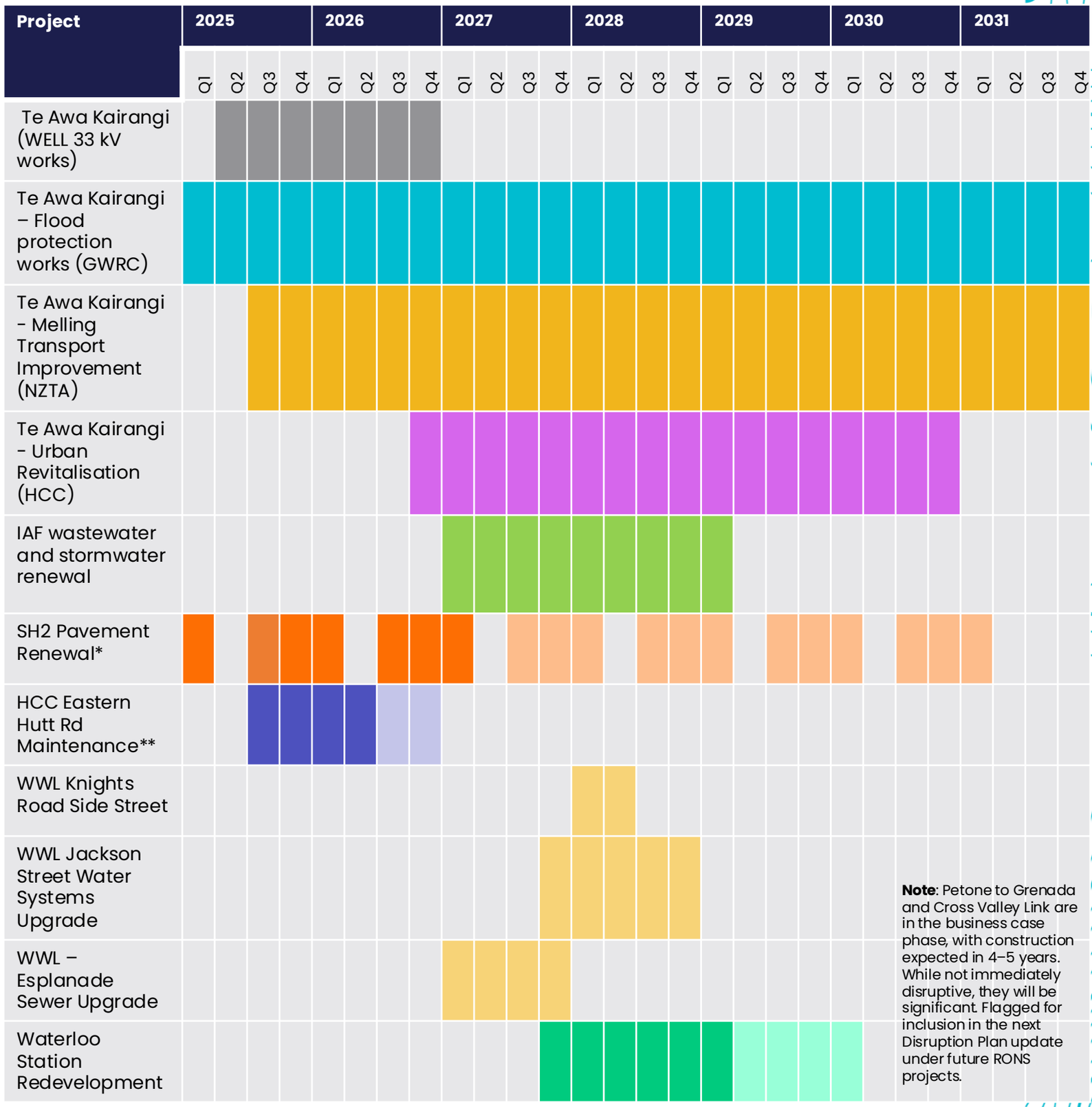


Figure 3.1: Summary of key projects expected to deliver disruption.

DRAFT

Overview of key activities

Disruption scenario 0

Disruption scenario 1

Disruption scenario 2

Disruption scenario 3

Disruption scenario 4

Note:
1. Flood protection works underway throughout timeline below, active travel paths will be impacted along the river corridor.
2. SH2 Pavement renewal works not included as nightworks only
3. Disruption scenarios refer to periods of disruption where significant cumulative impacts on transport users, businesses and residents are anticipated. Refer to next section.

Block Rd & Pharazyn St closure; WELL 33kV works & Eastern Hutt Rd Maintenance

Ava Bridge Replacement

Riverbank Carpark N partial closure; Harvey Norman Carpark, Melling Station and Park & Ride temporary closure

Queens Dr/ High St intersection & Riverbank Carpark N , Riverbank Carpark S & Daly St closure
Riverbank market relocated.

City Link Bridge construction commences

Lower speeds along sections of Esplanade and IAF works alignment.

Queens Dr/Rutherford St intersection closure

CBD Streetscape - Lane & footpath closures on city centre streets

WWL upgrade - blocks of Jackson St close; Waterloo Park and Ride reduces by 20%.

Parking reduction AOG Church; Marsden St closed for two weeks; Knights Road Side Street works.
Waterloo Station closure*

Temporary closure of Harbour View Road; Melling Link LILO

Western Hills localised traffic restirctions

Old Melling Bridge demolished

Q3-2025 | Q4-2025 | Q1-2026 | Q2-2026 | Q3-2026 | Q4-2026 | Q1-2027 | Q2-2027 | Q3-2027 | Q4-2027 | Q1-2028 | Q2-2028 | Q3-2028 | Q4-2028 | Q1-2029 | Q2-2029 | Q3-2029 | Q4-2029 | Q1-2030 | Q2-2030 | Q3-2030 | Q4-2030 | Q1-2031 | Q2-2031 | Q3-2031 | Q4-2031 | Q1-2032

Temporary Parking Sites established between Q4 2025 to Q2 2026)

Eastern Hutt Hd & WELL 33kV works complete

Queens Dr/ High St intersection open

Knights Road Side Stree works complete.

City Link Bridge and Melling Station operational; Jackson St water upgrade complete

AOG new parking, Queens Dr/ Rutherford St & Pharyzan St opens.
Waterloo Station opens*

CBD Streetscape works complete

New Melling Bridge complete

Riverbank Carpark reopens

Western Hills localised traffic restirctions ends

SH2 Interchange complete
Harbour View Road re-opens

Legend

- Activities (causing disruption)
- Completed works (could be leveraged)

Figure 3.2: Overview of key activities relating to major projects and completed projects

3a. Disruption Scenarios

Disruption scenarios

To better plan for disruption in Lower Hutt, five disruption scenarios were identified based on the sequencing of major infrastructure projects and their compounding impacts. These scenarios identify where overlapping works interact to create cumulative impacts on transport users, businesses and residents.

The following slides provide further information on each disruption scenario and its likely impact on movements. The five disruption scenarios considered are:

1. **Disruption scenario 0: October 2025 – May 2026-** Early disruption
2. **Disruption scenario 1: June to November 2026-** First time cumulative disruption become evident.
3. **Disruption scenario 2: December 2026 – April 2027-** Next time significant cumulative disruption is observed.
4. **Disruption scenario 3: May 2027 - March 2028-** During this timeframe, many of the same disruptions occur as in previous phases, but it also encompasses Wellington Water activities on Knights Rd and Jackson St.
5. **Disruption scenario 4: Feb to July 2029-** This phase introduces a left in, left out scenario at Melling Bridge. While this situation persists until New Melling Bridge is completed in February 2030, the early part of this period involves additional work.

Following the modelling results on page 22, the subsequent pages detail the geographic extents of each project within the disruption scenarios. This is followed by a description of existing conditions and the expected conditions during the disruption.

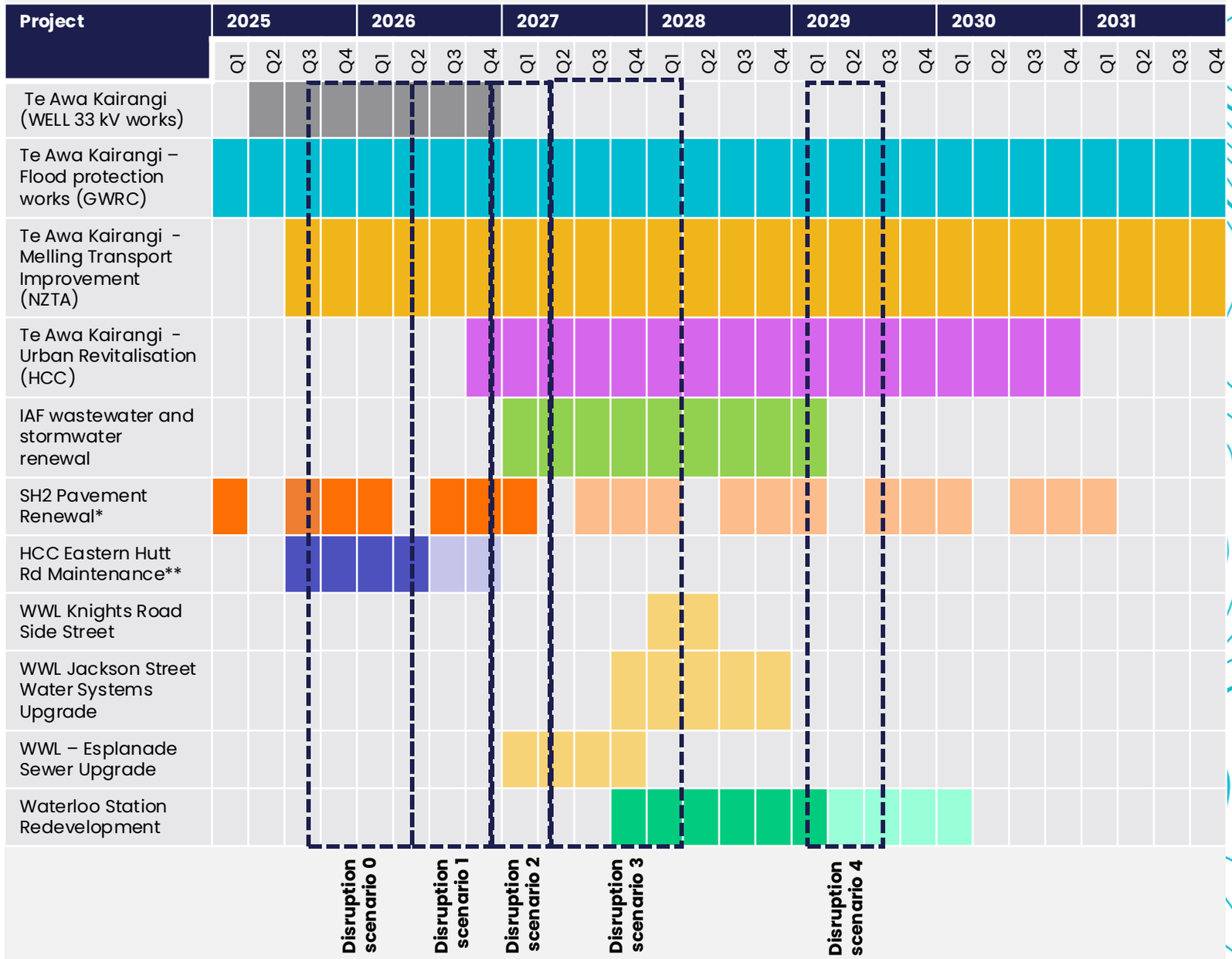


Figure 3.3: Disruption scenarios

Note: Disruption scenarios and associated impacts do not account for the fact that some disruptions may already have been partially adapted to during earlier disruption periods. In practice, some people may need to adapt again—for example, by further shifting travel times, modes, or parking locations—while others may already be well-adjusted, making the next disruption less impactful. This effect is not captured in the disruption scenarios but is important to consider. It highlights the need for ongoing monitoring to understand and respond to evolving travel behaviours.

DRAFT

Modelling the 'worst case' scenario

Traffic modelling using AIMSUN was undertaken to assess the potential impacts of a 'worst case' disruption scenario during weekday PM peak periods, between September 2026 and May 2027. Modelling spans across Disruption Scenarios 1 & 2, and the full modelling report is available in Appendix A. **The modelling shows that without changes in travel behaviour disruption will worsen traffic congestion in the city centre.**

Test scenarios

Two test (plus base case) scenarios were modelled to assess the effects of disruption:

- **Base case:** Level of congestion pre disruption
- **Test 1:** A 10% reduction in car trips to/from Hutt CBD during peak times
- **Test 2:** A combined 15% reduction—10% in Hutt CBD trips and an additional 5% drop across the wider Lower Hutt network (assumes proposed mitigation activities are implemented).

Modelling results are shown in Figure 12.

Assumptions in the disrupted state modelling (Test 1 and 2)

The disrupted state assumes the closure of the Riverbank carpark, Block Road, Daly Street, Pharazyn Street, and the Queens Drive/ Rutherford Street and Queens Drive / High Street roundabouts. Initially, the impact on traffic is expected to be high. However, over time, a reduction in trips is anticipated due to the closure of Riverbank Carpark and Melling Park & Ride; loss of other on-road parking; redistribution of short to medium term parking to residential streets on the city fringe; and behaviour change actions outlined in this Disruption Response Plan.

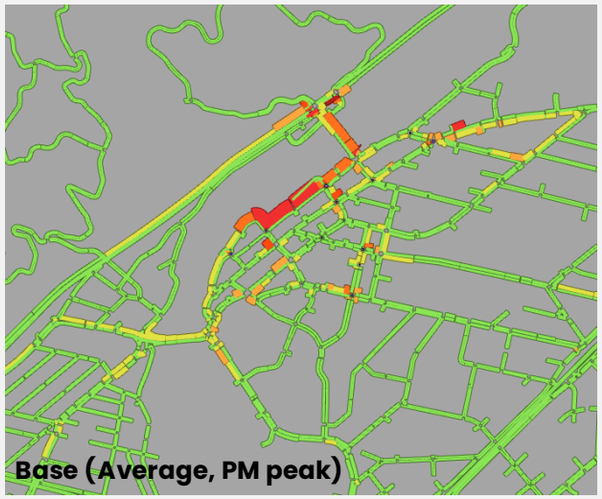
Key Insights

The modelling demonstrates **that a 15% reduction in car trips to/from Hutt CBD during peak times and a 5% reduction in trips across the wider Hutt City network** will be needed to mitigate congestion and disruption impacts (Test 2). This need for mode shift is reinforced by observed traffic patterns during the SH2 disruption in April 2025, where volumes on Eastern Hutt Road increased by 23%—despite coinciding with school and Easter holidays. The actual impact under normal conditions would likely be even greater, underscoring the importance of reducing peak car trips to avoid widespread congestion.

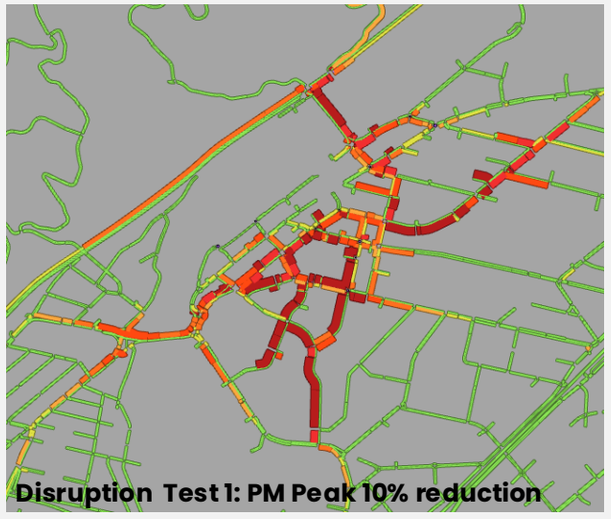
What needs to happen

To support this shift, this Disruption Response Plan must make it easy for people to:

- understand the disruption and how it might impact them
- continue accessing social and economic opportunities, including supporting the vitality of the central city
- change their travel behaviour, for example by changing how and when
- they travel, where they park and how they travel from where they park.

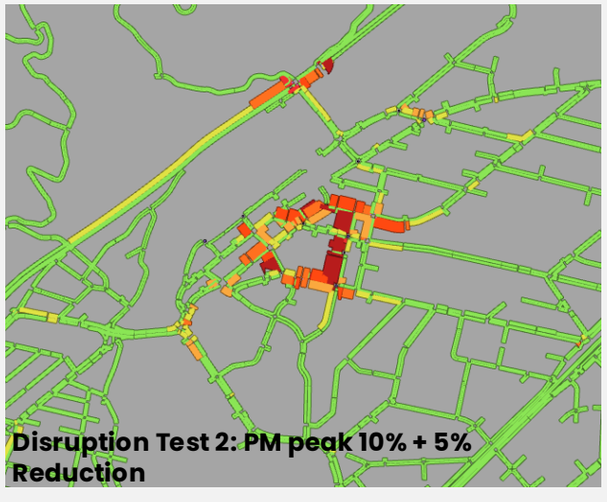


Base case shows some congestion in the city centre during PM peak on weekdays, before disruption begins.



Test 1: Due to the high levels of congestion anticipated in the disruption scenario, the model did not reach a stable state for Test 1. This means the specific congestion patterns shown in Test 1 are unlikely to occur exactly as modelled. However, traffic conditions would still be worse than those in Test 2.

Even if a 10% reduction in traffic (due to closures and some behaviour change) is achieved, the modelling indicates that travel times for key journeys could increase by 5 to 15 minutes, and congestion will intensify on key streets within the city centre and around Queensgate. These impacts are illustrated in the image on the left.



Test 2: Congestion remains but becomes manageable with a 10% reduction in car trips to/from Hutt CBD during peak times and a 5% reduction in trips across the wider Lower Hutt network

- SH2 NB – 5% to 10% increase
- Melling Bridge – 20% less westbound
- Harcourt Werry – 50% decrease
- Melling Link / Pretoria / Cornwall- 50% increase, used as the alternative to access CBD destinations
- Kings Crescent – 50% increase east of Roundabout, 100% increase west
- Knights Rd – 10% to 20% increase
- Woburn / Queens – small changes in volumes

Figure 3.4: Traffic modelling results – 'worst case' at PM peak, undertaken by the Wellington Transport Analytics Unit. Refer to Appendix A for details.

Disruption Scenario 0: Oct 2025 to May 2026

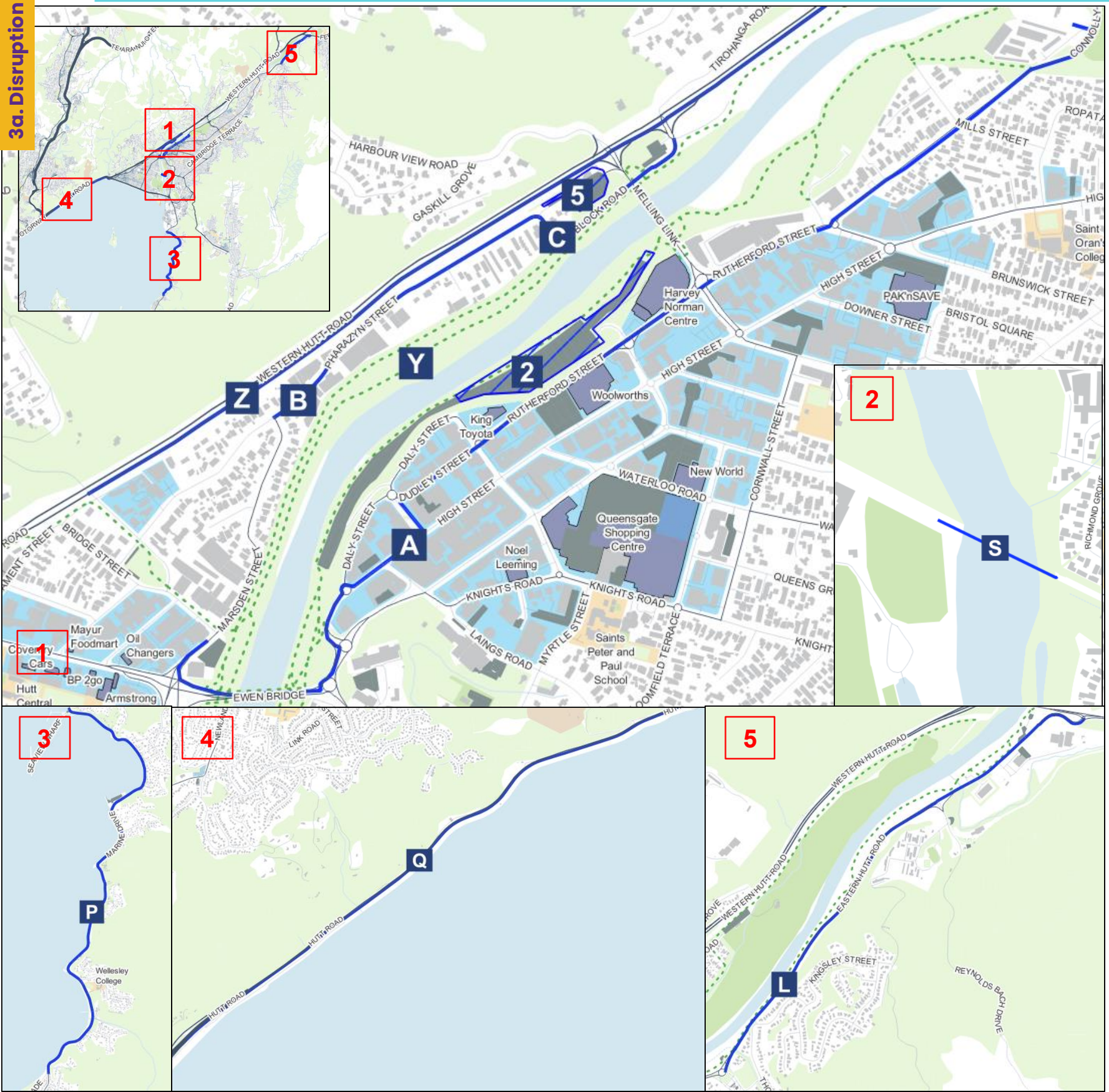


Figure 3.5: Disruption scenario 0, October 2025 to May 2026 represents the commencement of the Te Awa Kairangi project and key disruptions including temporary closure of Melling Station, Pharazyn Street and permanent closure of Block Road.

Key	Disruption
A	WELL 33kV relocation works
B	Temporary closure of Pharazyn Street
C	Permanent closure of Block Road
L	Eastern Hutt Road Maintenance
P	Tupua Horo Nuku: seawall and shared path works Sorento Bay to Ma-Korimiko
Q	Te Ara Tupua: Ngā Ūranga ki Pito-One section
R	SH2 Pavement renewal works FY25/26
S	Ava Bridge upgrade
Y	Active transport disruption from flood protection works
Z	SH2 speed reduction
2	Temporary partial closure of Riverbank Carpark (North)
5	Melling Station and Park & Ride temporary closure
NA	HCC Project Road Maintenance Program (TBC 40 sites)*
NA	PowerCo PE gas main renewal Liangs Road*
NA	PowerCo IP pipeline decommission Eastern Hutt Road*

* Denotes project unmapped as disruptions/ extents are unknown at this point in time.

Table 3.2: Disruption Scenario 0

Key	Project (Owner)	Existing condition	Disruption state
A	Te Awa Kairangi (WELL)	WELL 33kV relocation runs along Connolly Street, Rutherford Street, Andrews Avenue, High Street, Queens Drive, Ewen Bridge and Victoria Street [key commercial areas and shops within HCC]. The on-street parking along the alignment includes: Connolly Street: 13; Rutherford Street: 14 + 1 taxi bay near Woolworths; +22 near King Toyota; Dudley Street: 1 loading zone + 31 car parks; Andrews Ave: 19 on street parking + 1 taxi zone near shops; High Street: 53 +14 parking spots	**WELL 33kV relocation works** Works will along along Connolly Street, Rutherford Street, Andrews Avenue, High Street, Queens Drive and Ewen Bridge delivered in three concurrent packages, each requiring temporary traffic management e.g. lane closures and potential full street closures. Expect speed reductions, loss of on-street parking, and possible bus route diversions.
B, C	Te Awa Kairangi (NZTA)	Block Road and Pharazyn Streets form a key alternative route linking Alicetown and Melling to SH2. Bus routes 145 and 149 also operate along Block Road. There is also on street parking on Pharazyn Street.	**Temporary Closure of Pharazyn Street / Permanent Closure of Block Road** Motorists who use Pharazyn Street to travel to / from SH2 will likely reroute via Dowse Interchange, Kennedy Good Bridge or use alternate local roads to access Melling Link On street parking on Pharazyn Street impacted, drivers will need to access alternate parking sites as per Transitional Parking Plan
L	Eastern Hutt Rd (HCC)	Eastern Hutt Road is a Transit Corridor connecting Stokes Valley to Upper Hutt.	**Closure of one Direction of Eastern Hutt Road* (Potential extend beyond 07/2026)** • Diversion of traffic from Eastern Hutt Road to SH2 • Depending on the direction that is closed – likely increase in traffic across Kennedy Good Bridge or Silverstream Road Bridge
P	Tupua Horo Nuku (HCC)	Marine Drive is a coastal road with an existing speed limit between 50km/hr to 70km/Hr.	**Tupua Horo Nuku seawall/ sharedpath works Sorento Bay to Ma-Korimiko** The works involve a 4.4-kilometre seawall and shared path along Marine Drive between Ngau Matau/Point Howard and Eastbourne. Disruption include partial road closures and reduced speeds.
Q	Te Ara Tapua (NZTA)	The project will create a new resilient coastal edge protecting the road and rail, and additionally provide a safe and attractive walking and cycling link between Wellington and Lower Hutt.	**Te Ara Tupua (Ngā Ūranga ki Pito-One section)** Disruption impacts during construction are minimal. The shared will provide a cycling and micromobility option between Wellington and Hutt Valley is open for use from mid 2026.
R	SH2 Renewal (NZTA)	Although the posted speed limit is 100 km/hr, peak-period congestion often reduces actual travel speeds below this.	**SH2 Pavement Renewal Works 25/26** Minimal impacts. Night works only.
S	Ava Bridge (KiwIRail)	Ava Bridge is a rail bridge with a pedestrian walkway over Te Awa Kairangi/ Hutt River.	**Ava Bridge upgrade** Complete rail closure while bridge is renewed (26/12/25-5/1/25).
Y	Te Awa Kairangi (GWRC)	Footpaths/ active transport trail runs along the true left bank and true right bank of Te Awa Kariangi/ Hutt River.	**Flood protection works** Active travel paths will be impacted along the river corridor for the duration of works. Temporary shared paths to be provided as per consent condition.
Z	Te Awa Kairangi (NZTA)	Although the posted speed limit is 100 km/hr, peak-period congestion often reduces actual travel speeds below this.	**Temporary Speed Limit on SH2 (70kmph)** • Traffic impact expected to be minimal
1	Te Awa Kairangi (NZTA)	Queens Drive/ High Street intersection is a key intersection within the central city and supports key movements between State Highway 2 and Lower Hutt via Melling Link.	**High Street/Queens Drive intersection construction - Closure of Queens Drive between High and Rutherford** • Motorists who use Queens Drive to travel to / from SH2 north and Connelly Street will divert via Cornwall St, High St (northwest of Queens) and Connelly St (northwest of Queens) and Kings Cr • Increased traffic congestion on Queens Dr, Cornwall St, Kings Cr

2, 3, 4	Te Awa Kairangi (GWRC)	Riverbank Parking provides ~792 uncovered parking spaced - unrestricted at a maximum $10 daily charge, representing 72% of total unrestricted parking available in the city centre provided by HCC based on data from HCC GIS portal	**Closure of Riverbank Carpark (North) and relocation of Riverbank Market, Permanent closure of Riverbank Carpark (South)**
			• Commuters will likely shift to parking on residential streets on the fringes of the controlled parking zones or access alternate sites to be delivered under the Transitional Parking Plan
			  • people who continue to drive may need to walk further from their car to their destination
			  • some people change mode of transport
			• Riverbank markets are relocated (impact will depend on the new site selection)

5	Te Awa Kairangi (NZTA)	Melling Station primarily serves Park & Ride users, with 45% arriving by car, followed by 35% walking and 11% by bus (2011 survey). It accounts for around 27% of boardings on the Melling Line—most from residents in Western Hills and Hutt Central —though overall patronage is lower than at Petone and Waterloo Stations on the Hutt Valley Line.	**Melling Station and Park & Ride Temporary Closure** • People who currently access Melling Station on foot or by bike continue to access the Melling Line via Western Hutt Station (terminus during relocation) • People who currently access Melling Station from the Western Hills will need to allow for longer travel time by bus (145 / 149) to Waterloo Station (via the congested central city) or drive. • People who drive to Melling Station will need to alter travel behaviour or allow longer travel time to drive to other stations e.g. Petone Station where additional Park & Ride capacity will be provided.

Disruption Scenario 1: Jun 2026 to Nov 2026

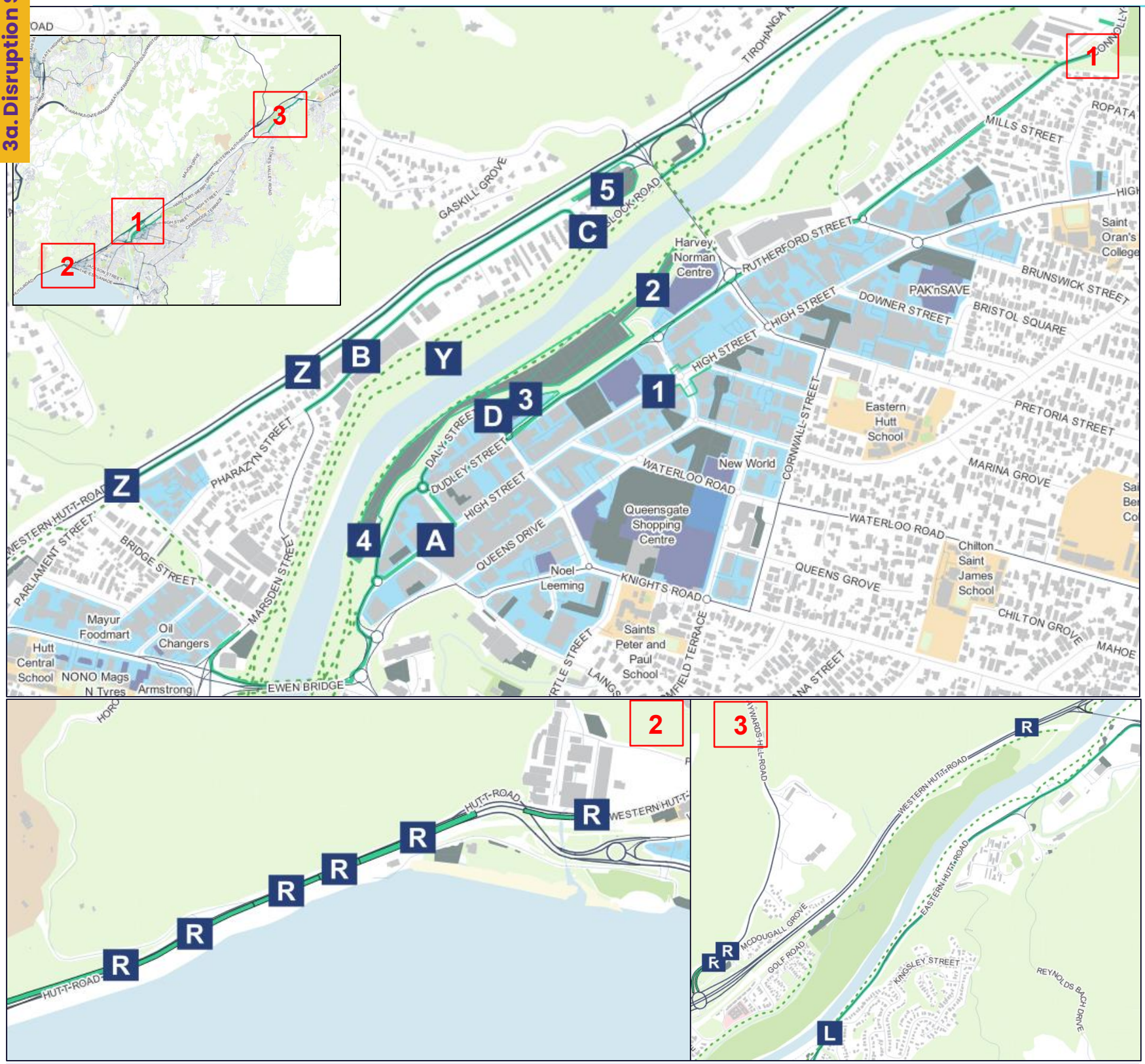


Figure 3.6: Disruption scenario 1, June 2026 – November 2026 is the first time significant cumulative disruption is observed. Of note is the commencement the full closure of Riverbank Car Parks (north and south), High Street/ Queens Drive intersection construction and WELL 33kV relocation works.

NOTE: Te Ara Tupua providing a cycling and micromobility option between Wellington and Hutt Valley is open for use from mid 2026.

Key	Disruption
A	**WELL 33kV relocation works**
B	Temporary closure of Pharazyn Street
C	Permanent closure of Block Road
D	**Daly Street permanent closure**
L	Eastern Hutt Road Maintenance
R	SH2 Pavement renewal works FY26/27
Y	Active transport disruption from flood protection works
Z	SH2 speed reduction
1	**High Street/Queens Drive intersection construction**
2	**Temporary full closure of Riverbank Carpark (North)**
3	**Relocation of Riverbank Market**
4	**Permanent closure of Riverbank Carpark (South)**
5	Melling Station and park & ride temporary closure

Completed works from the previous scenario:

- Te Ara Tupua
- Tupua Horo Nuku
- Ava Bridge upgrade

Note: **bold** denotes projects commencing in this scenario

Table 3.3: Disruption Scenario 1

Key	Project (Owner)	Existing condition	Disruption state
A	Te Awa Kairangi (WELL)	WELL 33kV relocation runs along Connolly Street, Rutherford Street, Andrews Avenue, High Street, Queens Drive, Ewen Bridge and Victoria Street [key commercial areas and shops within HCC] The on-street parking along the alignment include: Connolly Street: 13; Rutherford Street: 14 + 1 taxi bay near Woolworths; +22 near King Toyota; Dudley Street: 1 loading zone + 31 car parks; Andrews Ave: 19 on street parking + 1 taxi zone near shops; High Street: 53 +14 parking spots	**WELL 33kV relocation works** Works will be delivered in three concurrent packages, each requiring temporary traffic management—such as lane closures, one-way systems, stop-go controls, and potential full street closures. These will lead to speed reductions, loss of on-street parking, and possible bus route diversions.
B, C	Te Awa Kairangi (NZTA)	Block Road, Pharazyn Road, and Daly Street form a key alternative route linking Alicetown and Melling to SH2. Bus routes 145 and 149 also operate along Block Road. There are also on street parking on Pharazyn Street and Daly Street	**Temporary Closure of Pharazyn Street / Permanent Closure of Block Road** Motorists who use Pharazyn Street to travel to / from SH2 will reroute via Dowse Interchange, Kennedy Good Bridge or Melling Link.
D	Te Awa Kairangi (GWRC)		**Daly Street – Permanently closed to allow GWRC to carry out stopbank works** Northbound AM Peak - about 250 vehicles per hour using Daly Street heading to SH2 (North) or Boulcott will need to divert to High Street/ Rutherford Street to access Melling Interchange or continue north. On street parking on Pharazyn Street and Daly Street impacted, drivers will need to alter travel behaviour or access alternate parking sites
L	Eastern Hutt Rd (HCC)	Eastern Hutt Road is a Transit Corridor connecting Stokes Valley to Upper Hutt.	**Closure of one Direction of Eastern Hutt Road* (Potential extend beyond 07/2026)** • Diversion of traffic from Eastern Hutt Road to SH2 • Depending on the direction that is closed – likely increase in traffic across Kennedy Good Bridge or Silverstream Road Bridge
R	SH2 Renewal (NZTA)	State Highway 2 is a major highway connecting Auckland to Wellington. Although the posted speed limit is 100 km/hr, peak-period congestion often reduces actual travel speeds below this.	**SH2 Pavement Renewal Works 26/27** Minimal impacts. Night works only.
Y	Te Awa Kairangi (GWRC)	A footpath/ active transport trail runs along the true left bank and true right bank of Te Awa Kariangi/ Hutt River.	**Flood protection works** Active travel paths will be impacted along the river corridor for the duration of works. Temporary shared paths to be provided as per consent conditions.
Z	Te Awa Kairangi (NZTA)	State Highway 2 is a major highway connecting Auckland to Wellington. Although the posted speed limit is 100 km/hr, peak-period congestion often reduces actual travel speeds below this.	**Temporary Speed Limit on SH2 (70kmph)** Traffic impact expected to be minimal
1	Te Awa Kairangi (NZTA)	Queens Drive/ High Street intersection is a key intersection within the central city and supports key movements between State Highway 2 and Lower Hutt via Melling Link.	**Closure of Queens Drive between High and Rutherford** • Motorists who use Queens Drive to travel to/from SH2 north and Connelly Street will divert via Cornwall St, High St (northwest of Queens) and Connelly St (northwest of Queens) and Kings Cr • Increased traffic congestion on Queens Dr, Cornwall St, Kings Cr

2, 3, 4	Te Awa Kairangi (GWRC)	Riverbank Parking provides ~792 uncovered parking spaced - unrestricted at a maximum $10 daily charge, representing 72% of total unrestricted parking available in the city centre provided by HCC based on data from HCC GIS portal.	**Closure of Riverbank Carpark (North) and relocation of Riverbank Market, Permanent closure of Riverbank Carpark (South)**
			• Commuters will likely shift to parking on residential streets on the fringes of the controlled parking zones or access alternate sites to be delivered under the Transitional Parking Plan
			  • people who continue to drive may need to walk further from their car to their destination
			  • some people change mode of transport
			• Riverbank markets are relocated (impact will depend on the new site selection)

5	Te Awa Kairangi (NZTA, GWRC-Metlink)	Melling Station primarily serves Park & Ride users, with 45% arriving by car, followed by 35% walking and 11% by bus (2011 survey). It accounts for around 27% of boardings on the Melling Line—most from residents in Western Hills and Lower Hutt—though overall patronage is lower than at Petone and Waterloo Stations on the Hutt Valley Line	**Melling Station and Park & Ride Temporary Closure** • People who currently access Melling Station on foot or by bike continue to access the Melling Line via Western Hutt Station (terminus during relocation) • People who currently access Melling Station from the Western Hills will need to allow for longer travel time by bus (145 / 149) to Waterloo Station (via the congested central city) • People who drive to Melling Station will need to alter travel behaviour or allow longer travel time to drive to other stations e.g. Petone Station where additional Park & Ride capacity will be provided

Note: Highlighted rows denotes projects commencing in this scenario

Disruption Scenario 2: Dec 2026 to April 2027

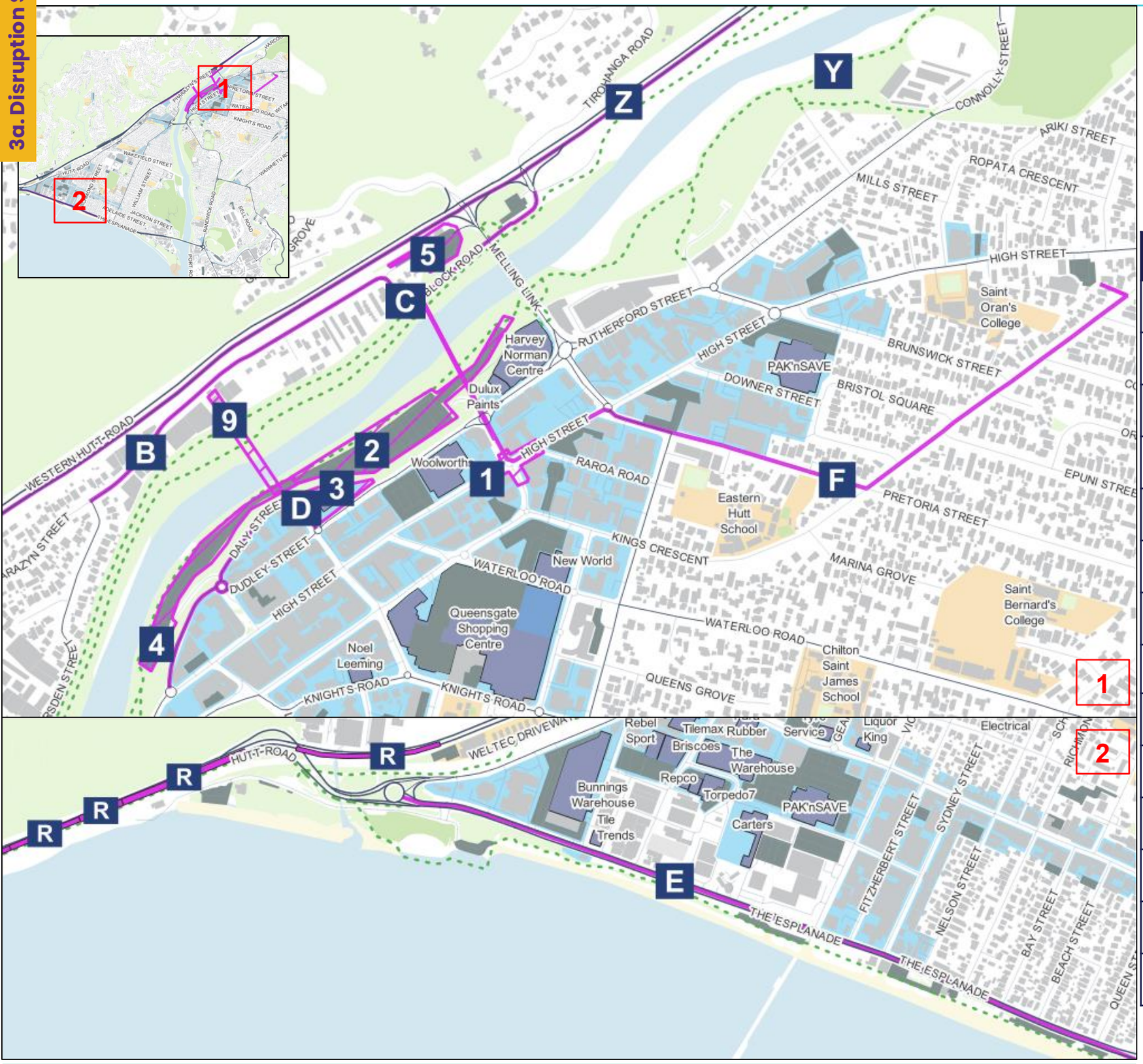


Figure 3.7: Disruption scenario 2, December 2026 – April 2027 is the next time significant cumulative disruption is observed. Of note is the commencement of IAF Stormwater and Wastewater Renewal works, The Esplanade sewer upgrade works and the City Link Bridge Construction.

Key	Disruption
B	Temporary closure of Pharazyn Street
C	Permanent closure of Block Road
D	Daly Street permanent closure
E	**The Esplanade Sewer Upgrade works**
F	**IAF Stormwater and Wastewater Renewal Works**
R	SH2 Pavement renewal works FY26/27
Y	Active transport disruption from flood protection works
Z	SH2 speed reduction
1	High Street/Queens Drive intersection construction
2	Temporary closure of Riverbank Carpark (North)
3	Relocation of Riverbank Market
4	Permanent closure of Riverbank Carpark (South)
5	Melling Station and park & ride temporary closure
9	**City Link Bridge construction**

Note: **bold** denotes projects commencing in this scenario

Completed works from previous scenario:

- WELL 33kV relocation
- Eastern Hutt Road Maintenance and Crib Works

Table 3.3: Disruption Scenario 2

Key	Project (Owner)	Existing condition	Disruption state
B, C	Te Awa Kairangi (NZTA)	Block Road, Pharazyn Road, and Daly Street form a key alternative route linking Alicetown and Melling to SH2. Bus routes 145 and 149 also operate along Block Road.	**Temporary Closure of Pharazyn Street / Permanent Closure of Block Road** Motorists who use Pharazyn Street to travel to / from SH2 will reroute via Dowse Interchange, Kennedy Good Bridge or Melling Link
D	Te Awa Kairangi (NZTA)		**Daly Street – Permanently closed to allow GWRC to carry out stopbank works** Northbound AM Peak - about 250 vehicles per hour using Daly Street heading to SH2 (North) or Boulcott will need to divert to High Street/ Rutherford Street to access Melling Interchange or continue north. On street parking on Pharazyn Street and Daly Street impacted, drivers will need to alter travel behaviour or access alternate parking sites
E	Sewer Upgrade (WWL)	The Esplanade is a 50km/hr urban connector, providing a key link between Lower Hutt southern areas, the rest of Hutt Central, and SH2 for more than 25,000 motorists daily[1]. Esplanade services bus routes 81 and 84 which connect between Eastbourne and Wellington.	**Sewer Upgrade along median of the Esplanade.** Traffic management measures in place. Both directions of traffic will be maintained around the worksite. Short term diversions possible as works pass across intersections with the Esplanade.
F	IAF (HCC)	Pretoria Street, High Street, Queens Drive and Rutherford Street provide access to commercial properties, whilst King Crescent provides access to residentials, and is typically busy during AM and PM peak. The on-street parking provisions along the IAF alignment are: • King Crescent: 13; Pretoria Street: 51 + 1 school bus stop for Eastern Hutt School • High St: 23 +2 bus stops serving route 145 and 149	**IAF Stormwater and Wastewater Renewal Works** • Lower speeds, impacts to business access and some loss of parking on : Kings Crescent/Pretoria St, and small sections of High Street, Queens Drive and Rutherford Street , restrictions for approximately 200m at any one time. • The closure of sections of Queens Drive is expected to result in additional congestion on Kings Crescent. This results from motorists travelling to and from the central city and Ewen Bridge diverting around the Queens Drive / High Street intersection • Changes to school bus stop for Eastern Hutt School on Pretoria Street. Some people may shift behaviour and opt to drop/pick up their kids.
R	SH2 Renewal (NZTA)	Although the posted speed limit is 100 km/hr, peak-period congestion often reduces actual travel speeds below this.	**SH2 Pavement Renewal Works 26/27** Night works only.
1	Te Awa Kairangi (NZTA)	Queens Drive/ High Street intersection is a key intersection within the central city and supports key movements between State Highway 2 and Lower Hutt via Melling Link.	**Closure of Queens Drive between High and Rutherford** • Motorists who use Queens Drive to travel to / from SH2 north and Connelly Street will divert via Cornwall St, High St (northwest of Queens) and Connelly St (northwest of Queens) and Kings Cr • Increased traffic congestion on Queens Dr, Cornwall St, Kings Cr

2, 3, 4	Te Awa Kairangi (GWRC)	Riverbank Parking provides ~792 uncovered parking spaced - unrestricted at a maximum $10 daily charge, representing 72% of total unrestricted parking available in the city centre provided by HCC based on data from HCC GIS portal.	**Closure of Riverbank Carpark (North) and relocation of Riverbank Market, Permanent closure of Riverbank Carpark (South)**
			• Commuters will likely shift to parking on residential streets on the fringes of the controlled parking zones or access alternate sites to be delivered under the Transitional Parking Plan
			  • people who continue to drive may need to walk further from their car to their destination
			  • some people change mode of transport
			• Riverbank markets are relocated (impact will depend on the new site selection)

5	Te Awa Kairangi (NZTA, GWRC-Metlink)	Melling Station primarily serves Park & Ride users, with 45% arriving by car, followed by 35% walking and 11% by bus (2011 survey). It accounts for around 27% of boardings on the Melling Line—most from residents in Western Hills and Hutt Central—though overall patronage is lower than at Petone and Waterloo Stations on the Hutt Valley Line	**Melling Station and Park & Ride Temporary Closure** • People who currently access Melling Station on foot or by bike continue to access the Melling Line via Western Hutt Station (terminus during relocation) • People who currently access Melling Station from the Western Hills will need to allow for longer travel time by bus (145 / 149) to Waterloo Station (via the congested central city) or drive. • People who drive to Melling Station will need to alter travel behaviour or allow longer travel time to drive to other stations e.g. Petone Station where additional Park & Ride capacity will be provided
9	Te Awa Kairangi (HCC)	New bridge to be constructed.	**City Link Bridge** Impacts restricted to Daly Street (site already impacted)
Y	Te Awa Kairangi (GWRC)	A footpath/ active transport trail runs along the true left bank and true right bank of Te Awa Kariangi/ Hutt River.	**Flood protection works** Active transport temporary closure/ diversion due to flood protection works
Z	Te Awa Kairangi (NZTA)	Although the posted speed limit is 100 km/hr, peak-period congestion often reduces actual travel speeds below this.	**Temporary Speed Limit on SH2 (70kmph)** Traffic impact expected to be minimal

Note: Highlighted rows denotes projects commencing in this scenario

Disruption Scenario 3: May 2027 to Mar 2028

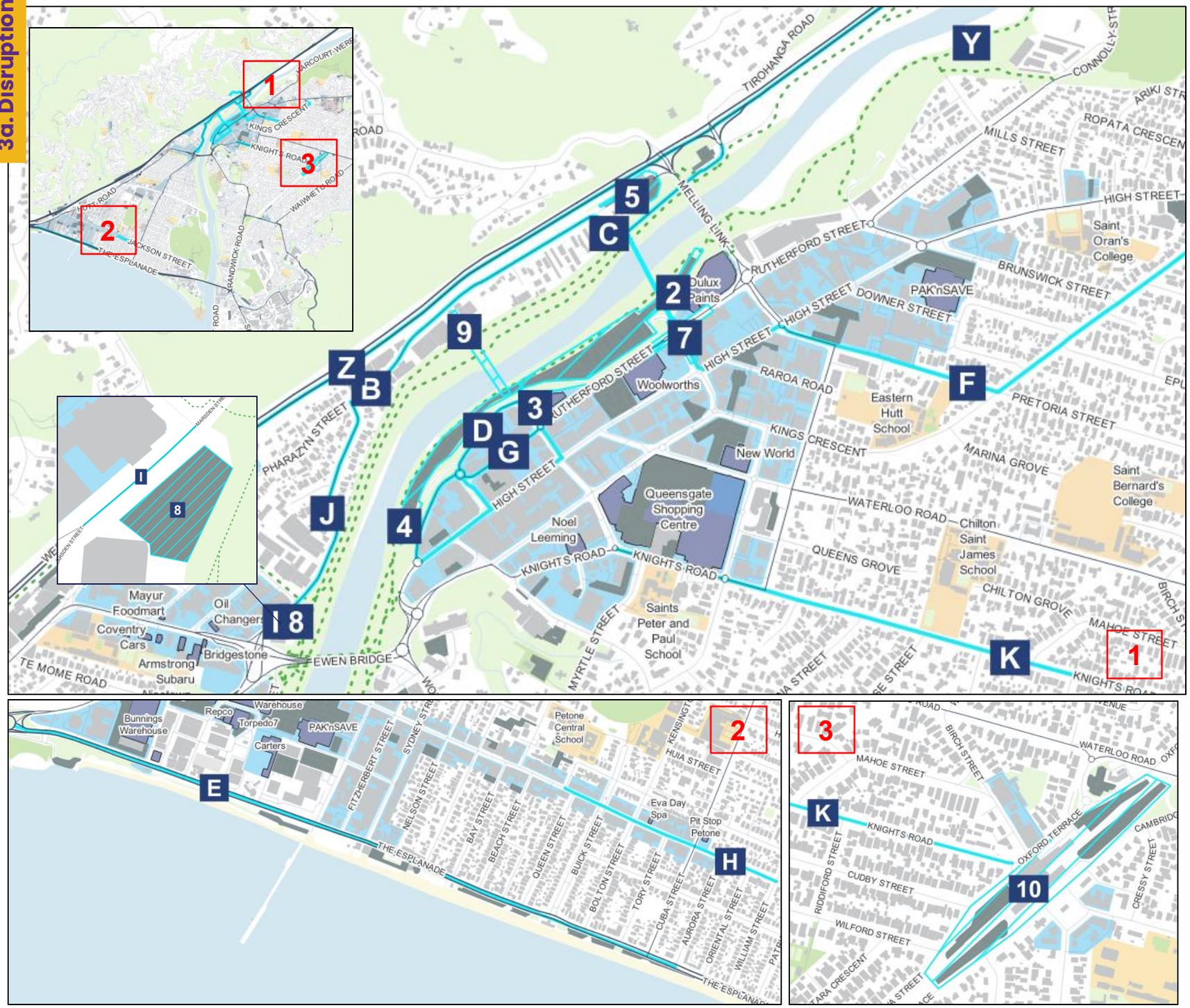


Figure 3.8: Disruption scenario 3, May 2027 to March 2028 – during this timeframe, many of the same disruptions occur as in previous phases, but it also encompasses Wellington Water activities on Knights Rd and Jackson Street, CBD Streetscape works, and disruptions along Marsden Street due to GWRC flood protection works.

Key	Disruption
B	Temporary closure of Pharazyn Street
C	Permanent closure of Block Road
D	Daly Street permanent closure
E	The Esplanade Sewer Upgrade works (to be completed in Dec 2027)
F	IAF Stormwater and Wastewater Renewal Works
G	**CBD Streetscapes**
H	**Jackson Street Water, Wastewater and Sewer Renewals (coming online Jan 2028)**
I, 8	**Temporary loss of 10 parking spaces at AOG, 12 on-street parking spaces along Marsden St**
J	**Temporary closure of Marsden Street for stopbank works (2 weeks only)**
K	**Knight Roads Side Street Sewer Upgrades**
Y	Active transport disruption from flood protection works
Z	SH2 speed reduction
2	Temporary closure of Riverbank Carpark (North)
3	Relocation of Riverbank Market
4	Permanent closure of Riverbank Carpark (South)
5	Melling Station and park & ride temporary closure
7	**Closure of Queens Drive between High and Rutherford**
9	City Link Bridge construction
10	**Waterloo Station Redevelopment**
N/A	SH2 Pavement renewal works FY27/28*

Note: **bold** denotes projects commencing in this scenario
*SH2 Renewal works FY27/28 extents TBC.

Completed works from previous scenario:

- High Street/Queens Drive intersection (impacts remain as High Street/ Rutherford Street intersection works commence)
- SH2 Renewal works FY26/27 will be completed.

It is also noted that The Esplanade works will be completed in December 2027 and Jackson Street WWL works will commence in January 2028. Therefore, both projects would not occur simultaneously.

Table 3.4: Disruption Scenario 3

Key	Project (Owner)	Existing Condition	Disruption state
B, C	Te Awa Kairangi (NZTA)	Block Road, Pharazyn Road, and Daly Street form a key alternative route linking Alicetown and Melling to SH2. Bus routes 145 and 149 also operate along Block Road.	**Temporary Closure of Pharazyn Street / Permanent Closure of Block Road** Motorists who use Pharazyn Street to travel to / from SH2 will reroute via Dowse Interchange, Kennedy Good Bridge or Melling Link
D	Te Awa Kairangi (NZTA)		**Daly Street – Permanently closed to allow GWRC to carry out stopbank works** Northbound AM Peak - about 250 vehicles per hour using Daly Street heading to SH2 (North) or Boulcott will need to divert to High Street/ Rutherford Street to access Melling Interchange or continue north. On street parking on Pharazyn Street and Daly Street impacted, drivers will need to alter travel behaviour or access alternate parking sites
F	IAF (HCC)	Pretoria Street, High Street, Queens Drive and Rutherford Street provide access to commercial properties, whilst King Crescent provides access to residentials, and is typically busy during AM and PM peak. The on-street parking provisions along the IAF alignment are: • King Crescent: 13; Pretoria Street: 51 + 1 school bus stop for Eastern Hutt School • High St: 23 +2 bus stops serving route 145 and 149	**IAF Stormwater and Wastewater Renewal Works** • Lower speeds and some loss of parking on : Kings Crescent/Pretoria St, and small sections of High Street, Queens Drive and Rutherford Street , restrictions for approximately 200m at any one time. • The closure of sections of Queens Drive is expected to result in additional congestion on Kings Crescent. This results from motorists travelling to and from the central city and Ewen Bridge diverting around the Queens Drive / High Street intersection • Changes to school bus stop for Eastern Hutt School on Pretoria Street. Some people may shift behaviour and opt to drop/pick up their kids.
G	Te Awa Kairangi (HCC)	Andrews Avenue, Dudley Street, High Street and Margaret Street provide access to businesses within Hutt Central. The on street parking provisions within the CBD Renewal site are: • High Street: 68 on-street parking • Margaret Street: 9 parking • Dudley Street: 31 parking • Andrews Avenue: 21 parking • Rutheford Street: 22 Parking	**CBD Streetscapes** Worksites within the central city will result in reduced availability of on-street car parks and slower speeds on destination streets. Traffic congestion for trips to and from SH2 is expected to be less prominent that for previous phases given the completion of Rutherford and High Street intersections with Queens Drive.
H	Water systems upgrade (WWL)	• Jackson Street is a two way one-lane local road. The segment of Jackson Street between Elizabeth Street and William Street provides access to local businesses, and a total of 80 on-street parking. Bus routes, including Route 110 and 130 run along Jackon Street.	**Jackson Street Water, Wastewater and Sewer Renewals** • Periodic closure of Jackson Street for water, wastewater and sewer renewals will result in localize diversions via The Esplanade resulting in increased traffic congestion. • Possibly some changes to the way in which people access Weltec College by car resulting in increase in traffic on Kensington Avenue, Cuba Street and Udy Street
I, 8	Te Awa Kairangi (GWRC)	• Assembly of God has an existing car parking lot with 50 parking spaces, and the surround area has approximately 64 on-street unrestricted parking.	**Temporary loss of 10 parking spaces at AOG, 12 on-street parking spaces along Marsden St** Temporary reduction in parking . AOG car park will be completed as an exchanged land parcel located ~150m north of the site to offset the parking spaces lost due to the construction of the Stopbank. This will provide 1a nett increase of 43 parking spaces for the site. AOG carpark is expected to be completed by 1 March 2029.
J	Te Awa Kairangi (GWRC)	• Marsden Street is a local road which services residential houses and Assembly of God church. There is a bus stop on Marsden Street at Bridge Street serving bus route 150. There is unrestricted road side parking along the street.	**Temporary closure of Marsden Street for during tie in with Marsden Street realignment (2 weeks only)** Minimal effect except for people who travel to properties immediately adjacent to the affected road section. - i.e. local access is affected
K	Sewer Upgrade (WWL)	• Knights Road is a two-direction one-lane local road running along a predominantly residential area. The Chilton Saint James School has a secondary entry fronting Knights Road.	**Knight Roads Side Street Sewer Upgrades** Minimal effect except to people who live in those streets and who drive.
Y	Te Awa Kairangi (GWRC)	A footpath/ active transport trail runs along the true left bank and true right bank of Te Awa Kariangi/ Hutt River.	**Flood protection works** Active transport temporary closure/ diversion due to flood protection works
Z	Te Awa Kairangi (NZTA)	• Although the posted speed limit is 100 km/hr, peak-period congestion often reduces actual travel speeds below this.	**Temporary Speed Limit on SH2 (70kmph)** Traffic impact expected to be minimal

Note: Highlighted rows denotes projects commencing in this scenario

Table 3.4 (cont...): Disruption Scenario 3

Disruption Scenario 3

Key	Project (Owner)	Existing Condition	Disruption state

2, 3, 4	Te Awa Kairangi (GWRC)	Riverbank Parking provides ~792 uncovered parking spaced - unrestricted at a maximum $10 daily charge, representing 72% of total unrestricted parking available in the city centre provided by HCC based on data from HCC GIS portal.	**Closure of Riverbank Carpark (North) and relocation of Riverbank Market, Permanent closure of Riverbank Carpark (South)**
			• Commuters will likely shift to parking on residential streets on the fringes of the controlled parking zones or access alternate sites to be delivered under the Transitional Parking Plan
			  • people who continue to drive may need to walk further from their car to their destination
			  • some people change mode of transport
			• Riverbank markets are relocated (impact will depend on the new site selection)

5	Te Awa Kairangi (NZTA, GWRC-Metlink)	Melling Station primarily serves Park & Ride users, with 45% arriving by car, followed by 35% walking and 11% by bus (2011 survey). It accounts for around 27% of boardings on the Melling Line—most from residents in Western Hills and Hutt Central—though overall patronage is lower than at Petone and Waterloo Stations on the Hutt Valley Line.	**Melling Station and Park & Ride Temporary Closure** • People who currently access Melling Station on foot or by bike continue to access the Melling Line via Western Hutt Station (terminus during relocation) • People who currently access Melling Station from the Western Hills will need to allow for longer travel time by bus (145 / 149) to Waterloo Station (via the congested central city) or drive. • People who drive to Melling Station will need to alter travel behaviour or allow longer travel time to drive to other stations e.g. Petone Station where additional Park & Ride capacity will be provided
7	Te Awa Kairangi (NZTA)	Queens Drive/ Rutherford Street intersection is a key intersection within the central city and supports key movements between State Highway 2 and Lower Hutt via Melling Link.	**Closure of Queens Drive between High and Rutherford** • Motorists who use Queens Drive to travel to / from SH2 north and Connelly Street will divert via Cornwall Street, High Street (northwest of Queens) and Connelly Street (northwest of Queens) and Kings Crescent • Increased traffic congestion on Queens Drive, Cornwall Street, Kings Crescent
9	Te Awa Kairangi (HCC)	Provides a new active transport link	**City Link Bridge** Impacts restricted to Daly Street (site already impacted)
10	Waterloo Station Redevelopment (GWRC-Metlink)	Waterloo Station serves the Hutt Valley Line and bus services. Waterloo Station, the second busiest station in the region, is a major landmark in the Hutt Valley.	**Demolition works** Demolition works will occur during block of line closures by Kiwirail during the holiday period between December 2027 to January 2028. Park & ride capacity at Waterloo Station will likely be reduced by approximately 20% (permanently), which is already at capacity. **Station redevelopment construction works** The construction methodology of the station redevelopment works are still under investigation. During station redevelopment, the existing Waterloo Station may remain operational, or it may be fully closed. Should the station be fully closed, the below disruptions are anticipated: • Pedestrian underpass providing east-west connectivity closed. This would require pedestrians (many which are students at nearby schools) to walk an additional 500 metres north or south to cross the rail line. • Anticipated increase of traffic, particularly in AM Peak, at Wainuiomata from more people driving. • Increased pressure on park & ride services of nearby stations including Petone and Woburn, or on-street parking around Ava and Epuni Station. • Commuters requiring to take bus replacement services and allow for longer journey times to continue accessing Hutt Valley Line. • Potential impacts to existing bus services at Waterloo Station (TBC). The disruption period for the Waterloo Station Redevelopment will be dependent on the construction methodology. An indicative period has been included within this disruption scenario, which may be delayed by a year, or extended if the station were to be kept operational during construction.

Note: Highlighted rows denotes projects commencing in this scenario

Disruption Scenario 4: Feb 2029 to July 2029

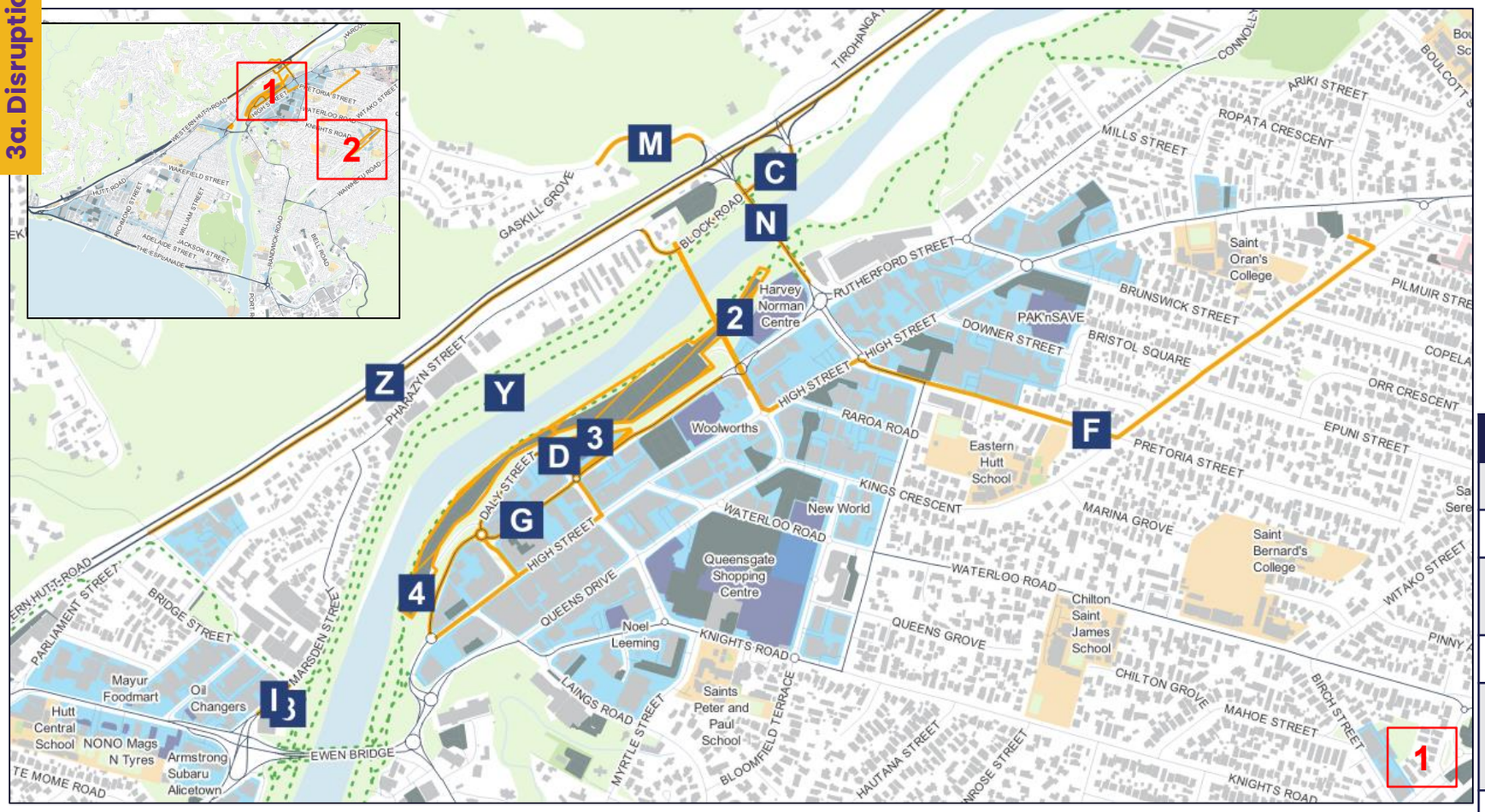


Figure 3.9: Disruption scenario 4, Feb 2029 to Jan 2030 – This phase introduces a left in, left out scenario at Old Melling Bridge commences February 2029, which will be in place until the New Melling Bridge is constructed in February 2030. Scenario 4 extends to July 2029 as the CBD streetscape works completes in July 2029.

It is noted that IAF works and Assembly of God car park will be completed in March 2029 hence, this mapping demonstrates the worst case scenario.

Key	Disruption
C	Permanent closure of Block Road
D	Daly Street permanent closure
F	IAF Stormwater and Wastewater Renewal Works (complete March 2029)
G	CBD Streetscapes (complete July 2029)
I, 8	Temporary loss of 10 parking spaces at AOG, 12 on-street parking spaces along Marsden St (complete March 2029)
M	**Harbour View Road temporary closure**
N	**SH2 Left-in/ Left-out**
Y	Active transport disruption from flood protection works
Z	SH2 speed reduction
2	Temporary closure of Riverbank Carpark (North)
3	Relocation of Riverbank Market
4	Permanent closure of Riverbank Carpark (South)
10	**If construction is delayed - Waterloo Station Redevelopment (refer Scenario 3)**

Note: **bold** denotes projects commencing in this scenario.

Completed works from previous scenario:

- Melling Station relocation and park & ride is completed and is operational.
- Pharazyn Street re-opens
- The Esplanade sewer upgrade
- Jackson Street waters systems upgrades
- Knights Road side streets wastewater upgrades
- Marsden Street realignment complete
- Assembly of God car park opens
- Queen Street/ Rutherford Street intersection upgrade
- City Link Bridge is open, connecting Hutt Central to operational Melling Station
- Waterloo station operational (**note: construction may be delayed by a year so could add to this disruption period**)

Table 3.5: Disruption Scenario 4

Key	Project (Owner)	Existing Condition	Disruption state
C, D	Te Awa Kairangi (NZTA)	Block Road and Daly Street form a key alternative route linking Alicetown and Melling to SH2. Bus routes 145 and 149 also operate along Block Road.	Block Road and Daly Street are closed permanently.
F	IAF (HCC)	Pretoria Street, High Street, Queens Drive and Rutherford Street provide access to commercial properties, whilst King Crescent provides access to residentials, and is typically busy during AM and PM peak. The on-street parking provisions along the IAF alignment are: • King Crescent: 13; Pretoria Street: 51 + 1 school bus stop for Eastern Hutt School • High St: 23 +2 bus stops serving route 145 and 149	**IAF Stormwater and Wastewater Renewal Works** • Lower speeds and some loss of parking on : Kings Crescent/Pretoria St, and small sections of High Street, Queens Drive and Rutherford Street , restrictions for approximately 200m at any one time. • The closure of sections of Queens Drive is expected to result in additional congestion on Kings Crescent. This results from motorists travelling to and from the central city and Ewen Bridge diverting around the Queens Drive / High Street intersection • Changes to school bus stop for Eastern Hutt School on Pretoria Street. Some people may shift behaviour and opt to drop/pick up their kids.
G	Te Awa Kairangi (HCC)	Andrews Avenue, Dudley Street, High Street and Margaret Street provide access to businesses within Hutt Central. The on street parking provisions within the CBD Renewal site are: • High Street: 68 on-street parking • Margaret Street: 9 parking • Dudley Street: 31 parking • Andrews Avenue: 21 parking • Rutheford Street: 22 Parking	**CBD Streetscapes** Worksites within the central city will result in reduced availability of on-street car parks and slower speeds on destination streets. Traffic congestion for trips to and from SH2 is expected to be less prominent that for previous phases given the completion of Rutherford and High Street intersections with Queens Drive.
I, 8	Te Awa Kairangi (GWRC)	• Assembly of God has an existing car parking lot with 50 parking spaces, and the surround area has approximately 64 on-street unrestricted parking.	**Temporary loss of 10 parking spaces at AOG, 12 on-street parking spaces along Marsden St** Temporary reduction in parking . AOG car park will be completed as an exchanged land parcel located ~150m north of the site to offset the parking spaces lost due to the construction of the Stopbank. This will provide 1a nett increase of 43 parking spaces for the site. AOG carpark is expected to be completed by 1 March 2029.
M	Te Awa Kairangi (NZTA)	Harbour View Road provides access to residents at Western Hills to State Highway 2, and services bus routes 145 and 149.	**Temporary full closure of Harbour View Road** would lead to traffic impacts due to alternative traffic access arrangements and require bus services diversions. There will also be traffic management measures in place on Other local access road due to retaining wall construction works.
N	Te Awa Kairangi (NZTA)	Melling Link is the main accessway between State Highway 2 (SH2) and Lower Hutt.	**SH2/Melling LILO operational - Partial closure of existing Melling Bridge** Only traffic from north on SH2 coming into Hutt Central allowed. There will be no access from Hutt Central northbound to SH2 via Melling Link. This would mean road users exiting from Hutt Central onto SH2 will be need to use alternative routes such as Kennedy Good Bridge.
Y	Te Awa Kairangi (GWRC)	A footpath/ active transport trail runs along the true left bank and true right bank of Te Awa Kariangi/ Hutt River.	**Flood protection works** Active transport temporary closure/ diversion due to flood protection works
Z	Te Awa Kairangi (NZTA)	• Although the posted speed limit is 100 km/hr, peak-period congestion often reduces actual travel speeds below this.	**Temporary Speed Limit on SH2 (70kmph)** Traffic impact expected to be minimal

2, 3, 4	Te Awa Kairangi (GWRC)	Riverbank Parking provides ~792 uncovered parking spaced - unrestricted at a maximum $10 daily charge, representing 72% of total unrestricted parking available in the city centre provided by HCC based on data from HCC GIS portal.	**Closure of Riverbank Carpark (North) and relocation of Riverbank Market, Permanent closure of Riverbank Carpark (South)**
			• Commuters will likely shift to parking on residential streets on the fringes of the controlled parking zones or access alternate sites to be delivered under the Transitional Parking Plan
			  • people who continue to drive may need to walk further from their car to their destination
			  • some people change mode of transport
			• Riverbank markets are relocated (impact will depend on the new site selection)

Note: Highlighted rows denotes projects commencing in this scenario

04. Understanding the impacts

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Impacted groups

Understanding who is impacted by disruption is critical to ensuring that mitigation efforts are effective, equitable, and targeted. Different groups — such as residents, local businesses, commuters, visitors, and vulnerable communities — experience disruption in distinct ways, depending on their location, needs, and level of dependency on affected services or infrastructure. Without a clear picture of who is impacted, there is a risk of overlooking key concerns, exacerbating existing inequalities, or delivering generic responses that fail to address specific challenges.

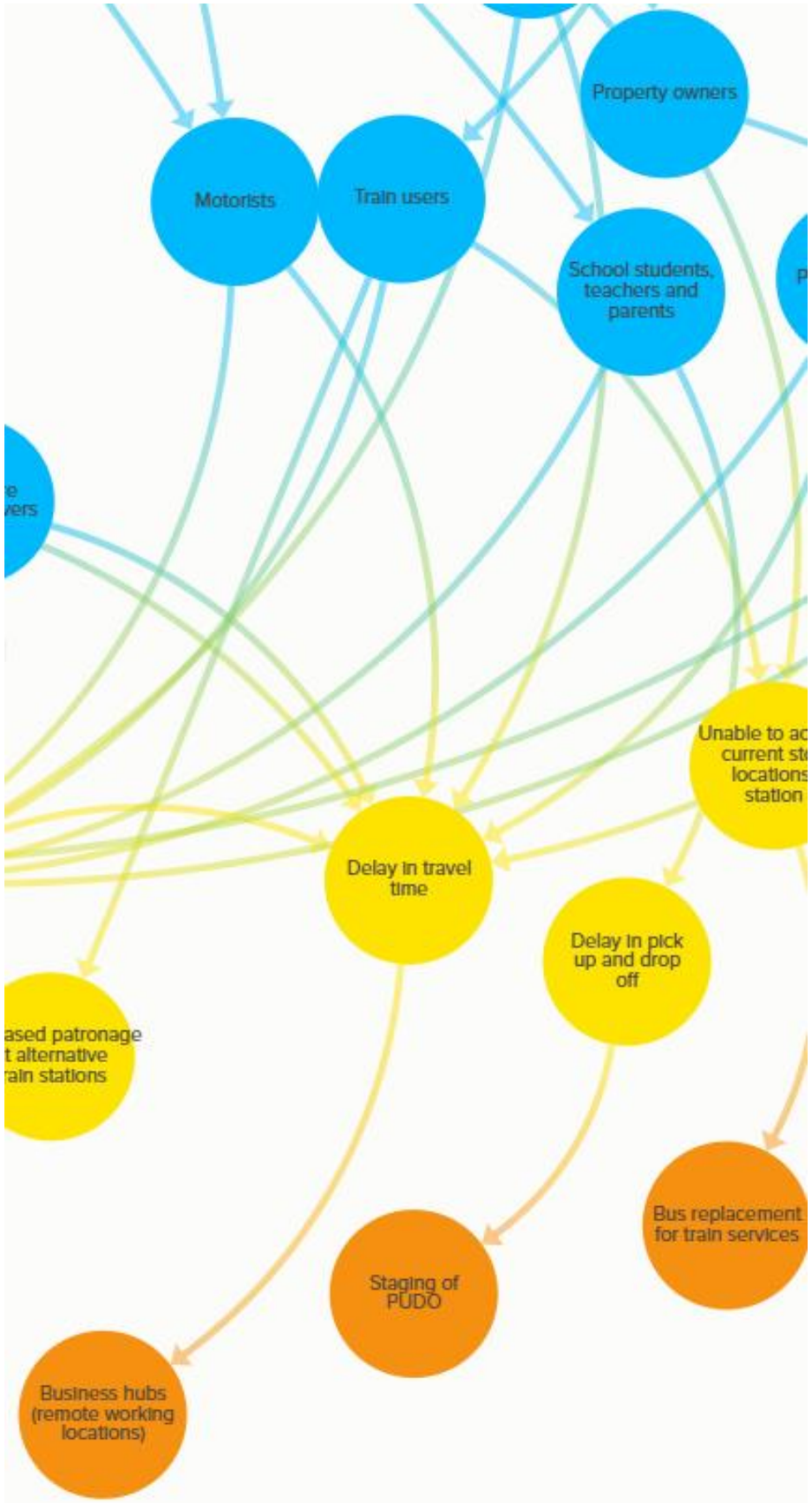
Key Groups that will be impacted by the cumulative disruption in Lower Hutt, identified collaborative by the Hutt City disruption group, are as follows:

- People driving
- Public transport users
- People walking and riding
- People travelling to School
- Emergency services
- Long distance travellers
- Users of the Riverbank car park
- Queensgate shopping centre
- City centre businesses and property owners
- Residents in Western Hills
- Residents of City Centre
- Residents of the Valley Floor
- Disability access and elderly residents
- Non-English-speaking community
- Weekend events, sports and recreation visitors
- Investors in the City Centre
- Users of community services
- Retail customers
- Mana Whenua & Māori business community
- Riverbank Market

For each group, the next slides map primary and cascading impacts as defined below:

- A **primary impact** is the immediate and direct effect of a disruption or intervention. These are typically planned-for consequences that result directly from construction or infrastructure activities — such as road closures, reduced access, noise, or service changes. For example: The closure of a key bus route due to roadworks.
- A **cascading impact** is a secondary or indirect consequence that arises from a primary impact, often affecting people, places, or services. For example: People reliant on the bus route may not be able to access social and economic opportunities.

Getting an understanding of impacts will help inform the communications engagement approach and mitigation strategies identified in this plan.



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Understanding impacts

Table 5.1: Impacted groups and impacts

Impacted Groups	Primary impacts	Cascading impacts
1. People travelling to Wellington City	• **By car:** Increased congestion within the city centre; Road closures on Pharazyn Street and Block Road causing increased congestion along Melling Link and increased traffic on SH2, leading to traffic build-up from southbound into Wellington City • **By bus:** Buses will be diverted and subject to congestion; Bus stops will move. • **By train:** reduced parking availability at park and rides, increasing travel time to work; Melling Station users will need to access alternate train stations or alter travel behaviour due to station and Park n Ride closure and reduced alternative parking at nearby train stations. • **Walking and cycling:** closure of riverside shared paths and increased traffic congestion could increase safety risks, detours and longer travel times. People previously walking/cycling to Melling Station will no longer be able to.	• People's normal way of travel may be impacted • Altered travel patterns – Waterloo, Western Hutt and Petone Stations will likely get busier • Potential shifts in travel behaviour - People may drive directly to the city adding to existing traffic in the city if people drive
2. People travelling within Hutt Central	• **By car:** Local streets will experience increased congestion, people will need to allow extra time to get to their workplace. Parking will be harder to find. • **By bus:** Buses will no longer be able to access Melling Station. Longer travel times, Local buses (145,149) that go over the Melling Link Bridge will experience delays. • **By train:** People taking the train from Melling station will be displaced • **Walking and cycling:** Heightened safety risks, detours and longer travel times	• Loss of usual way to access = Choosing not to travel and loss of consumer spend at businesses. / reduced participation or delays in everyday life clubs, sports etc • Frustration/ confusion over best way to move around the city • Potential increase in WFH • increased emissions from cars stuck in congestion
3. People driving north	• Majority of trips on the Lower Hutt network are for non-work purposes and are internal to Lower Hutt. Some people travel north (<1000 people) and may be impacted and subject to congestion in the city centre. According to modelling, travellers will have to allow extra time (up to 15min extra) through Hutt City centre	
4. People travelling to Schools	• **By car:** Increased congestion, longer travel times • **By bus:** Diversions, longer travel times; Bus stop changes (Eastern Hutt School). WELL 33kV works will have impacts on buses serving several other local schools too. This work is expected to be completed before this disruption scenario. • **By train:** students using the train via Melling Station to access schools in Wellington City will need to use another station or alter travel behaviour. • **Walking and cycling:** Heightened safety risks, detours and longer travel times	• People's normal way of travel may be impacted • Students using buses running late for classes/ requiring more travel time to get to schools. • Congestion on roads may deter parents from independent travel for kids and choose to drive them to and from school, adding to congestion
5. Users of the Riverbank car park	• People will no longer be able to park at the Riverbank car park and will have to find an alternative parking arrangements or alter travel behaviour. • Users of Riverbank Market will have to adapt their travel plan to access relocated market in city centre and may struggle to find alternate car parks.	• Potentially reduced traffic as a result of displaced parking demand at Riverbank • Construction workforce will exacerbate impacts on restricted parking options.
6. Queensgate shopping centre	• Potential decrease in visitors due to Increased traffic on surrounding streets making access to the centre more difficult • Melling Station closure, bus diversions and delays may deter public transport users from visiting the centre	• Businesses may choose to relocate • Lower Hutt may loose local facilities • Staff may face longer commute times, potentially affecting punctuality and productivity. • Risk of lease renegotiations or vacancies • Reputational risk. • City centre business performance and prosperity declines. • Stalled private investment and lender hesitancy.

Impacted Groups	Primary impacts	Cascading impacts
7. Businesses in Hutt Central	• Customers may change routine and shop at alternative locations • Business may experience delays with deliveries • Losing 'unintentional' shopping customers • Loss of 'hero' stores at 89 High St, losing overflow of customers • Uncertainty of how the city will look and when • Staff may face longer commute times & find it difficult to park • Construction fatigue • Negative experience of the city centre • People may actively avoid the city centre • Impacts on access to businesses (e.g. Harvey Norman, Target) • Temporary land access constraints and evolving construction timelines may add to frustration • Riverbank market relocation away into the city centre may improve city appeal	• Businesses may choose to relocate • Lower Hutt may loose local facilities e.g. businesses that relocate • Risk of lease renegotiations or vacancies • Reputational risk • Changing characteristics of local roads and streets may add to confusion and deter people from visiting local business • Delays may lead to a change in routine or negative customer experiences and potential loss of loyal customers. • Private investment stalled • Safety issues increased if business are not keeping the city busy/watched etc • City centre business performance and prosperity declines. • Stalled private investment and lender hesitancy.
18 Services & Delivery	• Loss or relocation of loading zones • Couriers re-routing or diverted • Increased time spent finding parking and potential delays in service providers and deliveries	• Additional costs may be incurred by businesses for rerouting and managing delivery schedules.
9. Property owners	• Reduced ease of access to properties—particularly for commercial premises and residential areas near the Riverbank, Melling, and Queens Drive/High Street and roads subject to permanent closures • Closure of parking facilities will increase pressure on surrounding streets and potentially reducing accessibility for tenants, customers, and visitors • Temporary land access constraints and evolving construction timelines may add to frustration • risk of lease renegotiations and vacancies	• Prolonged disruption may increase vacancy rates • Decline in interest from property investors; decrease in interest from tenants as well as investment in development; potential loss of rent for owners if choosing to live elsewhere • Long-term construction and uncertainty during prolonged disruption phases may deter buyers or tenants, potentially suppressing property values or rental yields
10. Residents in Western Hills	• People will face delays and may find it difficult to access current bus stop locations in Hutt City/ station/services.	• Decline in the appeal of living in the Western Hills
11. Active mode users along Riverbank active paths	• Loss of recreational access to the Riverbank paths on both sides of the river—and the introduction of temporary paths—may deter users due to reduced amenity and perceived safety risks associated with walking near active construction sites.	• A shift back to private vehicle use, increasing traffic volumes and undermining mode shift goals. • Lower visibility and normalisation of active transport, making it harder to encourage new users.
12. Residents of City Centre	• People will face delays and may find it difficult to access current bus stop locations in Hutt Central/ station/services. • Loss of recreational access to Riverbank paths • Increased noise, dust, and inconvenience from construction activities • Construction fatigue • Lack of clarity around what's happening in the city • People displaced from City Centre	• Decline in the appeal of living in the Hutt Central • Health impacts from prolonged exposure to noise and dust • Perceived decline in the quality of the living environment may affect property values. • More people WFH may be more sensitive to noise and vibration • Prolonged disruption will impact resident's civic pride.
13. Residents of the Valley Floor	• People may be unable or find it harder to access current bus stop location/ station/services/ local businesses • Travel delays • Lack of clarity around what's happening in the city • Loss of recreational facilities • Increased congestion/ pressure on park & ride at Hutt Valley line stations including Waterloo Station and Petone Station.	• Decline in the appeal of living in Valley Floor • Purchase a second car

Impacted Groups	Primary impacts	Cascading impacts
14. People using Waterloo station	• Depending on whether the closure is partial or full, people will not be able to access trains at Waterloo Station as they currently do. They may be redirected to other stations or opt to drive instead. • Parking will become more difficult as Park & Ride capacity—already at its limit—will be further reduced. • As Waterloo is a major pedestrian thoroughfare, users traveling east-west may face a detour of approximately 500 metres.	• Increased vehicle traffic from Wainuiomata during the AM peak period. • People with high needs may be disproportionately affected if accessible pedestrian facilities are not maintained during the disruption. • Many school children use the underpass to reach schools on the western side of Waterloo. Closure would disrupt their travel routines.
15. Hospital staff, patients & visitors; emergency services	• Hutt Hospital is located to the east of King Crescent Road along High Street. Kings Crescent/Pretoria St, small sections of High Street and Rutherford street will have work zones and temporary 30kmph Speed Restrictions for only 200m. This may cause delays/ require diversions to Hutt Hospital • Delays caused by traffic management measures could impact the response times of emergency services	• Missed hospital appointments • People may not be able to access the care they need • Staff may face longer commute times, potentially affecting punctuality and productivity. • People delay visits to hospitals, resulting in worsening of sickness [According to the ITS, Between 2014–17, rates of unmet GP needs due to a lack of transport within the Hutt Valley DHB were significantly higher than national rates. 4.6% of adults and 3.2% of children missed appointments due to a lack of transport]
16. Rideshare/ taxis	• The loss of on-street parking will make it more difficult for rideshare and taxi drivers to find parking spaces while waiting for passengers	• Higher operational costs due to increased travel times and rerouting may be passed on to customers. • Delays and increased costs can lead to negative customer experiences and reduced demand for services.
17. Disability access and elderly residents	• People's usual routes may be impacted, new routes may not be suitable for differently abled people • Increase barrier in access for disabled and elderly community who rely heavily on these types of companion driving services e.g., freedom driving, driving miss daisy etc. • People using Melling Station may experience difficulty in accessing accessible public transport options as buses may not be able to carry wheelchairs or mobility devices	• Decline in the appeal of living in Hutt City • People may experience limited accessibility • Changed or removed bus stops, parking spaces, and mobility drop-off zones can limit independence and increase reliance on others.
18. Non-English-speaking community	• unable to understand the disruption and impacts • Unable to plan for and navigate disruptions • Language barriers can lead to misunderstandings and miscommunications on construction sites, increasing the risk of accidents and injuries.	• Prolonged construction can disrupt daily life, affecting local businesses and social activities. Non-English-speaking residents may struggle more with these disruptions due to limited access to information and support services.
19. Weekend events, sports and recreation visitors	• Increased travel time, and diversions in accessing events, sports and recreation. • Reduced parking availability to attend events or activities. • Visual impacts from construction works.	• Loss of appeal in attending or hosting events in Hutt Central • Loss of revenue from visitors and events for Hutt City
20. Investors in the City Centre	• Stalled private investment and lender hesitancy.	• Reputational risk to city centre
21. Users of community services	• Confusion on ways to access existing services due to relocation of public services (e.g. relocation of library)	• Decline in the appeal of living in Hutt Central • Prolonged disruption will impact resident's civic pride.
22. Retail customers	• Reduced or rerouted vehicle, pedestrian, or public transport access may make it harder for customers to reach shops. • Changes in parking availability or signage can create confusion or deter casual visits. • Customers may assume shops are closed or inaccessible during major works, even if they're still open.	• Regular customers may alter their routines, including switching to online shopping, delaying discretionary purchases, or visiting alternative precincts perceived as easier to access. • Disrupted environments may discourage customers from spending time browsing or engaging with adjacent hospitality or services.

05.Communication and engagement

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Communication & engagement needs

Clear, consistent communication is vital to the success of any disruption response, especially in a complex, multi-agency project like this one. When multiple organisations are involved, it's essential to:

- align messaging
- define who makes decisions
- agree on lead times
- clarify which channels will be used.

Without this clarity, we risk confusion, misinformation, communication delays, and public frustration.

To work effectively, all partners need a shared understanding of roles, responsibilities, and communication protocols. This section outlines current arrangements and highlights what's needed for a unified, coordinated approach.

Communication management

- Communication between Hutt City Council and partner agencies is guided by the Te Awa Kairangi Strategic Framework, which is currently being updated to reflect the next stage of the programme.
- Each agency follows its own protocols for public-facing communications and shares relevant material via Te Awa Kairangi channels.
- Projects outside this framework (e.g. IAF and Wellington Water's Western Hills sewer main work) are managed with the relevant organisations.
- The Project Alliance Agreement (between NZTA and the Alliance) does not cover Hutt City Council communications. NZTA has its own Melling Transport Improvements Delivery Communications and Stakeholder Management Strategy.
- Hutt City Council is developing a Communications and Engagement Strategy to guide our work outside the central projects, such as providing support for local businesses during the transformation.

Current meetings and working groups

Te Awa Kairangi communications leads meet weekly to coordinate current work, with additional ad hoc meetings as required. Communications are also coordinated through the Programme Leadership Team (PLT) and Programme Governance Group (PGG), with oversight from the programme's Communications and Engagement Lead.

Approval processes

The Te Awa Kairangi Strategic Framework outlines how public-facing communications are approved. Each partner also has its own internal approval process and reports through PLT.

How we stay aligned

To ensure consistent, effective communications:

- **Clarify roles and responsibilities -** especially for activities not fully covered by the 2025 agreement (e.g. who owns and delivers travel disruption tools).
- **Avoid overlap -** when Hutt City Council and programme projects share stakeholders, clearly define who manages which relationships and messages (e.g. business support or travel disruption updates).
- **Use a single source of truth -** the Te Awa Kairangi website should be the main platform for public information, with all partners contributing content to ensure a consistent narrative.
- **Share information promptly -** to meet public expectations, key messages must be agreed and circulated between partners in a timely way.
- **Establish emergency protocols -** agreed processes are needed for fast, coordinated responses to urgent or unexpected events.
- **Agree a business-as-usual approach for high-needs users –** develop shared protocols and formats across projects to ensure consistent, accessible communication with high-needs users (e.g. two way communication). This includes identifying key organisations to consult with, such as Grey Power, Senior Citizens, IHC, and Blind Low Vision NZ.

Actions associated with the above points are detailed in the Action Plan. Please refer to the Excel document and filter by "HCC: Comms and Engagement" as the lead.

Ensuring appropriate resourcing

Effective communication will require resourcing. Each partner agency will need to allocate staff time, capability, and funding to support joint messaging, content development, stakeholder engagement, and responsiveness—particularly during high-disruption periods.

06. Governance

Governance structure, roles and responsibilities

Cross-council collaboration approach

The graphic below outlines the proposed cross council collaboration workstreams. It provides clarity around lead agencies responsible for delivering actions.

City Centre Programme

MANA WHENUA OUTCOMES

Ora Tangata
Ora Taio
Ora Wairua

LONG TERM PLAN PRIORTIES

- Provide 'future -fit' infrastructure
- Enable a liveable cit y and vibrant neighbourhoods
- Support and enhance the environment

PROGRAMME FOCUS

- Integrated decision-making and delivery
- An outcome -focused culture across all programme delivery partners
- Longer term business resilience and improved city centre vibrancy
- Community collaboration / harnessing the power of the collective

Tō Tātou Tāone 2055 - Our City 2055 (in progress)

Sustainable Growth Strategy / Spatial Plan

City Centre Framework

EXTERNAL COLLABORATION

Communications and engagement

Disruption planning and project site management

PROGRAMME WORKSTREAMS

Cross -council collaboration
(incl. consenting, parks & reserves, transport, strategy, connected communities teams)

Activation	Placemaking	Streetscape	Urban Development	Riverlink (HCC)	IAF Infrastructure	Riverlink (GWRC/NZTA)
Events	Play Laneways	Footpath	Daly Street	Woburn Intersection	Stormwater	Station relocation
Marketing	Art	Carriageway	Toyota site	Riverbank Park & Carpark	Wastewater	Melling Interchange
Business Support	Interpretation Signage	Crossings	Other sites	Riverside Market Relocation (B&E)		Stopbanks
Business resilience	Accessibility + seating	Furniture	IAF Housing			City Link bridge

Figure 4.1: City Centre Mahitahi programme overview (HCC supplied information)

Cross agency collaboration

There are several working groups that exist to promote cross agency collaboration, and some at the time of writing this plan are under development. Collaboration points that intersect with disruption management are outlined in the table on the right.

Note: As this is early in the process, other groups may be formed as projects get closer to delivery.

Table 6.1: Working groups and operational delivery teams tasked with cross agency collaboration

Working group	Purpose	Representatives	Decisions responsible for
Governance Group	Guide the tactical group and hold them accountable. Lead communication.	Jon Kingsbury – HCC Mark Owen – NZTA Samanatha Gain – Metlink Paul Tawharu - GWRC	Endorse Disruption Response Plan and associated activities
Te Awa Kairangi Project Leadership Team	Not operational, but will need to respond to all Te Awa Kairangi Project related issues	Te Awa Kairangi	Decisions relating to Te Awa Kairangi specific issues
Tactical Group	Share information on upcoming disruption; Be informed and align communication; Report to the Governance Group	HCC, NZTA, UHCC, Te Awa Kairangi Alliance, Metlink, Kiwirail, GWRC Travel Choice, Wellington Water	Empowered to adjust Forward Works
Operational Delivery teams (groups responsible for delivering solutions):			
Disruption Management Plan Delivery Team	Give effect to the Disruption Response Plan.	Lead HCC, supported by partner organisations	Agreement on interventions; establish governance
Stakeholder and Engagement group*	Provide an update on work in progress, make collective decisions on comms and engagement needs, keep the comms and engagement shared calendar up to date	Lead HCC, supported by NZTA, GW, Alliance	Integrated Strategic, tactical, operational comms across all works. Develop Key messages for targeted audience.
Te Awa Kairangi Communications Delivery Team PLUS Stakeholder and Engagement group*	Group meets weekly to discuss work in progress	NZTA, GW, HCC, Alliance	Communications relating to Te Awa Kairangi
Te Awa Kairangi Transport Planning and Construction Coordination Group	Integrate construction planning and co-ordination across HCC, NZTA and GWRC	HCC, NZTA and GWRC,	Construction planning as per the approved Coordinated Delivery Plan
Transitional Parking Plan Delivery Team	Develop, implement and report on the Transitional Parking Plan	HCC, supported by NZTA and GWRC	NA
Other operational groups responsible for development and delivery of TMPs and management plans	Deliver, deliver and manage TMPs and management plans	Project specific	Project specific

*Given the overlap in attendance, these two working groups could be combined in agreement with all parties.

07. Management strategy

Monitoring and evaluation, resourcing, and risk management

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Monitoring and Evaluation

This Disruption Response Plan will need to be continuously reviewed and adjusted as project timelines evolve and there is more granularity around the specific disruption and its impacts. Given the dynamic nature of the combined works program, ongoing monitoring and regular updates to the disruption Gantt chart and disruption mapping are essential to maintain an accurate, city-wide view of impact. Communication and engagement planning must also be proactive, with lead times agreed and built into delivery cycles to ensure timely, consistent, and coordinated messaging. This forward-planning approach will enable Hutt City Council's disruption response to remain agile, responsive, and well-prepared as conditions change.

Key objectives of the monitoring and evaluation process include:

- Assessing the effectiveness of mitigation strategies in reducing disruption impacts through real time monitoring of traffic and modelling work undertaken by the Wellington Transport Analytics Unit
- Monitoring stakeholder and community sentiment, including levels of awareness, satisfaction, and confidence
- Identifying gaps in delivery or communication
- Tracking progress toward broader strategic outcomes: reduced car dependency, increased use of public and active transport, and equitable access
- Ensuring accountability across agencies and delivery partners

Monitoring activities will include:

- Actively monitoring the traffic and train patronage to understand actual disruption compared to modelled disruption scenario [Refer to action 16 in the Action Plan]
- Regular reporting on project milestones, disruption timelines, and planned mitigation actions
- Stakeholder feedback gathered through surveys, direct engagement, and feedback channels
- Business impact tracking via business engagement meetings
- Community sentiment monitoring via social listening, feedback forms, or hotlines
- Ongoing review of the live Gantt chart to track cumulative pressure points and confidence levels

Evaluation will occur at key intervals, including:

- **Monthly reviews** with the Disruption Group to assess current disruption, mitigation progress, and key updates across the Gantt chart
- **Quarterly strategic assessments** to evaluate cross-project coordination, stakeholder engagement outcomes, and alignment with broader city objectives
- **Post-disruption reviews** to capture lessons learned and inform future disruption response planning, governance, and resourcing

Findings from monitoring and evaluation will be shared with relevant governance bodies [Governance Group and Tactical Group] and used to refine the Plan as new insights emerge.

The success of certain implementation actions should be evaluated against specific measures (e.g. City Centre Activation attendee numbers). Broader proposed performance indicators are aligned to the underpinning principles of the Disruption Plan (refer to page 49):

Table 7.1: Disruption Response Plan performance indicators

Underpinning principle	Performance Indicator
Engage early and build trust-based relationships	Disruption Response Plan communications protocol and online hub are established by Q4 2026.
Keep people consistently informed **Make navigation simple** **Promote equity of access**	• Hutt City online hub is updated monthly • Communications are offered in multiple formats and languages (as identified in the Communications and Engagement Plan); • Interventions consider diverse needs and meet or exceed disability standards; • Track and report reach of marketing campaigns and visitors to online hub.
Support behaviour change	Decrease in traffic congestion at PM peak.
Normalise sustainable transport	Increase in people reporting satisfaction with alternative active mode links; Impacted active mode links are replaced with temporary alternative links; Increase in people using public transport services.
Create engaging urban experiences	Track and report attendee numbers for City Centre Activations; Track and report businesses' patronage in City Centre.
Continuously monitor and learn from approach	Concise reporting on indicators generated with lessons learned at key intervals identified in this Plan.

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Resourcing

A considered approach to resourcing is essential to ensure the successful delivery of the Disruption Response Plan. As disruption increases and the plan scales, resourcing will need to remain flexible and responsive — with the capacity to scale up at critical points and adjust based on operational needs.

To initiate implementation, it is proposed that Hutt City Council allocate a dedicated resource to lead the delivery of the Disruption Response Plan. This role will be responsible for:

1. Communications & Stakeholder Engagement
- Keep stakeholders informed of disruptions and any changes (e.g. timelines, extents, impacts)
- Oversee the disruption hub/online platform
- Maintain a close working relationship with Te Awa Kairangi

2. Program Coordination
- Coordinate travel behaviour change activities
- Attend key meetings, including: Tactical Group; Stakeholder and Engagement Group; Te Awa Kairangi Transport Planning and Construction Coordination Group; Disruption Response Working Group

3. Monitoring & Reporting
- Maintain up-to-date disruption-related information within the plan
- Manage the disruption risk register
- Collate progress updates on mitigation measures across agencies
- Own and report on the Monitoring and Evaluation Plan, including tracking and sharing the effectiveness of mitigation measures

Key skills needed for the disruption response coordinator role:
- Project coordination and planning
- Strong written and verbal communication
- Stakeholder engagement and collaboration
- Knowledge of transport or infrastructure systems (desirable)
- Experience with travel demand management) (desirable)
- Digital literacy (web content, mapping tools, dashboards) (optional)
- Problem-solving and critical thinking

This role may be well suited to an internal staff member or someone on a secondment from GWRC/consultant.

Opportunity: At the time of writing this plan, GWRC have indicated willingness to support the delivery of some of the travel behaviour change measures. It is recommended that Hutt City Council continue to engage with GWRC to explore co-delivery options and confirm available support.

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Risk Management

Managing risk is essential to the successful delivery of this Disruption Response Plan. By identifying risks in advance and embedding controls within the Disruption Response Plan, Hutt City Council can take proactive action. Designed as a live document, the intention is for risks to be identified and captured during the **Tactical Group meetings.** These could be risks affecting the delivery of the Disruption Response Plan or project specific risks as they evolve. **The Hutt City Disruption Group** will be responsible for identifying mitigation measures and action owners.

Table 7.2: Risk register (live document)

#	Category	Date identified	Risk Description	Impact	Mitigation	Action owner	Status
1	Disruption Response Plan delivery	June 2025	Insufficient resources	Delays in response; plan steps not executed	Allocate sufficient staff; and funding	HCC	
2	Disruption Response Plan delivery	June 2025	Disruption plan is outdated or not fit-for-purpose	Project delivery teams may not share information	Establish regular communication channels; socialise the Disruption Plan amongst all agencies delivering work in Hutt Central	HCC	Underway
3	Disruption Response Plan delivery	June 2025	Missed learning opportunities	Plan not optimised for the evolving conditions	Leverage the Wellington Analytics Unit outputs to adapt future responses	HCC Disruption Resource	
4	Disruption Response Plan delivery	June 2025	No post-event review or learning	Repeated mistakes; plan stagnation	Develop a monitoring and evaluation plan	Activity owners	
5	Disruption Response Plan delivery	June 2025	No clear owner for maintaining or executing the plan	Confusion, duplication of effort, no progress	Assign named owners; embed in governance processes	HCC	Underway
6	Disruption Response Plan delivery	June 2025	Staff/partner agencies view plan as irrelevant or duplicative effort	Lack of buy-in	Simplify documentation; engage teams in development; socialise the Disruption Plan amongst all agencies delivering work in Hutt City	HCC	Underway
7	Travel behaviour change activities	October 2025	Micromobility providers unwilling to operate in Lower Hutt due to commercial reasons	Limited active travel opportunities for the communities of Lower Hutt	Start early negotiations with micromobility providers	HCC	
8	Disruption Response Plan delivery	Ongoing	Lack of clarity on roles and responsibilities with Te Awa Kairangi	Duplicative effort; lack of buy-in	Maintain a good working relationship with Te Awa Kairangi	HCC	Underway
9	TBC						

08. Action Plan

One source of truth for action

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Principles underpinning the Action Plan

Effective disruption management relies on a clear set of guiding principles to ensure consistency, coordination, and responsiveness across all projects. They ensure that the community remains at the centre of decision-making and that disruption is transformed into an opportunity to deliver on the city's long-term vision.

This Disruption Response Plan identifies actions that put these principles into practice to reduce disruption, support people through change, and lay the foundation for long-term improvements in mobility and urban experience.

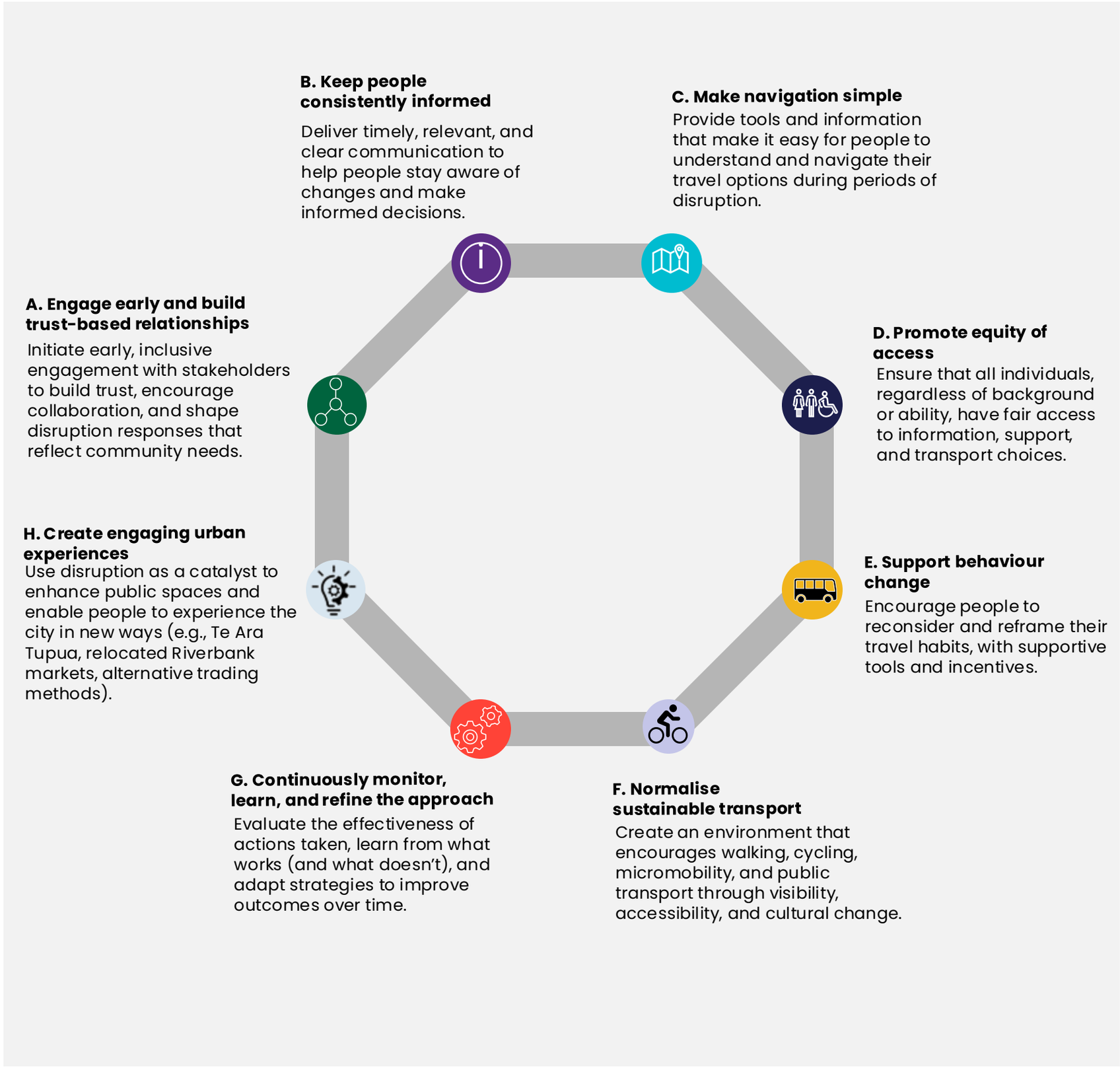

Figure 8.1: Key principles underpinning this response plan

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Enabling a coordinated response

A successful approach to managing disruption hinges on effective, coherent, and coordinated planning and communication, while also providing opportunities for individuals to adjust their behaviour without losing access to essential social and economic resources. It is crucial that this response is fair, feasible, and aligned with the city's long-term objectives, ensuring that disruption enhances rather than detracts from the city's vision. The main goal of this Disruption Response Plan is to facilitate a unified approach among the various agencies involved in infrastructure improvements over the upcoming years. This plan sets up a framework designed to keep people informed, provide diverse travel options, manage peak-time car trips in the city centre, and address impacts on stakeholders. It aims to achieve this by creating clear governance structures, communication pathways, management strategies, and a detailed action plan. Key mechanisms for managing the anticipated disruption are outlined below:

1. Disruption mitigation activities
The Disruption Response Plan will inform the operational response to disruptions expected in Hutt Central and surrounds. Its primary purpose is to verify information related to disruptions—such as timing, locations, and expected impacts—and ensure that all stakeholders share a consistent and updated understanding of the situation. The plan also outlines governance frameworks, clarifies roles and responsibilities to enable a coordinated response to disruption. The Disruption Response Plan will be supported by activities carried out by other stakeholders, including the NZ Transport Agency, Greater Wellington Regional Council, and project delivery agencies, emphasising the importance of coordination efforts to present a united front to the communities of Lower Hutt.

2. Travel Behaviour Change activities
Building on the insights collected during the development of this Disruption Response Plan, the action plan includes several targeted Travel Behaviour Change activities aimed at encouraging people to change the way they move to and within the city. While these interventions will serve the temporary disruption response, they also align with Hutt City Council's strategic plans for 'no-regrets' action.

3. Online hub/ web platform
It is essential for residents to be informed about upcoming disruptions, their impacts, and available options—this information must come from a reliable, central source. This web platform will serve as a centralised, always-accessible digital resource under consistent branding that will:

- Provide real-time updates
- Offer tools, journey planners, and interactive maps
- Deliver targeted messages and collateral aligned with mode shifts.

4. Overarching Communications and Engagement Plan
All these efforts will be supported by an overarching Communications and Engagement Plan lead by Hutty City Council to ensure consistency of external messaging across various project delivery streams.

5. In-progress planning activities
There are several existing mitigation measures already planned or underway to respond to the upcoming disruption, which have informed and are embedded in the Action Plan.

See an overview of the action plan overleaf.

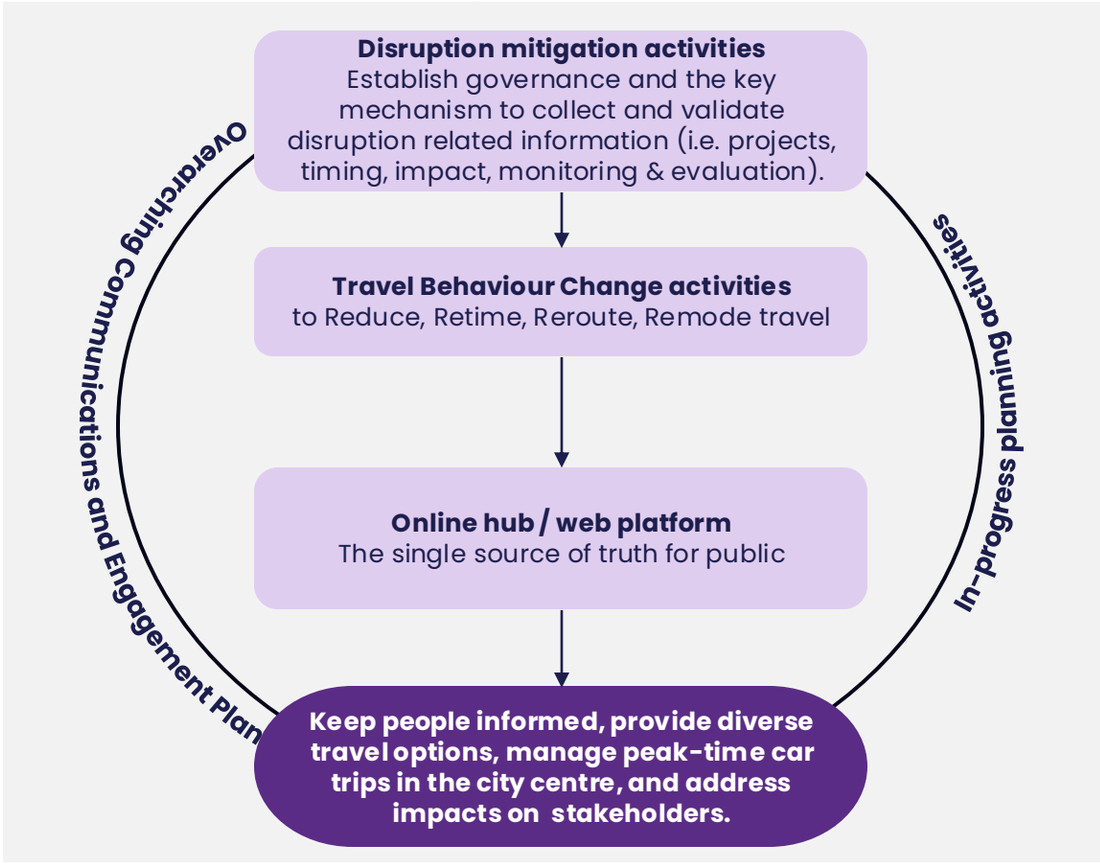

Figure 8.2: Key mechanisms to deliver a coordinated disruption response

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Principles for travel behaviour change

Why travel behaviour change is urgent?

Modelling for the Disruption Response Plan shows that without a shift away from car travel, Lower Hutt's transport network will face severe congestion—especially during peak times. In worst-case scenarios, traffic volumes could double on key routes, and even with some trip reductions, delays of 5–15 minutes are expected.

Without action, Level of Service (LoS) will drop, risking gridlock, public frustration, and missed opportunities for long-term mode shift.

Why this matters

Public trust: Poor travel experiences erode confidence in Council's disruption management
Economic impact: Delays affect business, freight and access to services
Strategic alignment: Missed chance to embed sustainable transport aligned with the Integrated Transport Strategy

What needs to happen

Travel Behaviour Change is not just about offering alternatives—it's about making them easy, attractive, and habitual. Using the COM-B model, we know people need:

- Capability – knowledge and skills
- Opportunity – access and infrastructure
- Motivation – incentives and social norms

The Travel Behaviour Change activities identified in this Disruption Response Plan will:

- Keep people informed – with timely, clear communication about disruptions and travel options
- Keep the city moving – by reducing car dependency and easing pressure on the network
- Support long-term mode shift – embedding sustainable travel habits beyond the disruption period
- Leverage the online disruption hub – as a central platform for tools, updates, and engagement
- Be delivered through a tailored hierarchy of interventions – designed for Lower Hutt's unique context (focused on keeping people moving and minimising impacts on businesses).

Acknowledging Trade-offs

As disruption unfolds, there will be increasing competition for limited road space in the CBD—between cars, buses, service and delivery vehicles, people on bikes and on foot. This will require tough trade-offs. A balanced and transparent approach will be essential to ensure the network remains functional, fair, and aligned with the city's long-term transport vision.

Hierarchy of interventions

1. **Re-time**: travel outside of busy periods
    - Travel outside busy times
    - Hold meetings between 10am and 3pm to maximise flexibility during peak times
2. **Reduce:** avoid unnecessary travel
    - Consolidate deliveries
    - Use technology: tele/video conference
3. **Re-mode**: encourage a shift away from car driving
    - Walk or cycle for short trips
    - Walk/cycle or take the bus to work
    - Encourage kids to travel to school independently
    - Consider car share/ride share
4. **Re-route**: avoid areas of construction
    - Use alternative routes where possible

Figure 8.3: Relevant strategies for the Travel Behaviour Change program (Source: Let's Get Wellington Moving Business Case). Note: Te Reo translations will need to be checked with mana whenua.

Key insights: Active Travel and Mode Shift Potential in Lower Hutt

This section provides key insights for the potential for active travel from the 2020 Cycling and Micromobility Business Case (2020) and the Hutt City Integrated Transport Strategy that have informed travel behaviour activities:

Community Attitudes and Demand

Strong support for cycling:

- 67% believe investing in cycle lanes is important to expand travel options
- 66% agree cycling is an easy and efficient way to get around
- 52% see cycling as a growing trend for commuting and errands
- Safety drives uptake: 56% of residents say they'd walk or cycle more for short trips if they felt safer doing so
- Perceived benefits for all: 40% agree that more people cycling benefits drivers too

Infrastructure Gaps and Opportunities

Infrastructure gaps remain:

- Only 28% feel the cycle network is well-connected
- Just 11% believe cyclists are sufficiently separated from traffic
- 30% are satisfied with current cycle path availability
- Only 18% perceive improvements in local cycling infrastructure
- Design for safety and access: Minimising conflicts with other transport modes is critical to making active travel safe and appealing
- Micromobility gap: While private devices are in use, public e-scooter rentals are not yet available in Lower Hutt

Geographic and Demographic Insights

- **High-density suburbs = high potential:** Petone, Waterloo, Naenae, Taita, Stokes Valley, and Wainuiomata have the highest population density—making them prime candidates for cycleway investment and uptake
- **Youth-focused opportunity:** These same areas also have a higher proportion of young people, offering strong potential to shift school trips to active modes
- **Valley floor advantage:** The flat terrain and proximity of destinations make the Valley floor especially well-suited for cycling and micromobility
- **Uneven uptake:** Northern Hutt City and Wainuiomata currently have lower cycling rates than southern and western areas—but e-bikes and e-scooters can help overcome distance and gradient barriers

Commuting and Mode Shift Potential

- **Short commutes, big impact**: 62% of residents work within Hutt Central, and many trips are short—ideal for cycling and micromobility
- **Rail mode shift potential:**
  - Over 300 people within a 10-minute walk of a rail station currently drive to Wellington CBD—highlighting an opportunity to shift from car to rail
  - Around 400 people live within 1 km of their origin station but drive there—indicating potential to shift access mode to walking or cycling
- **Bus access advantage:** 50% of Hutt Valley residents live within a 10-minute walk of a frequent bus service connecting to train stations—offering strong potential for mode shift from car to public transport
- **Network connectivity matters:** Linking existing and planned cycleways to key destinations and residential areas will boost uptake across the network

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Hutt City Online Hub

A single source of truth

Establishing a centralised online hub is a priority for the Disruption Response Plan. This platform will be critical to helping people make informed travel decisions throughout the disruption period. It should consolidate real-time updates, alerts, travel alternatives, data insights, business checklists, and campaign materials in one easy-to-access location (see case study on the right). It is likely to be integrated with NZTA and GWRC via the Te Awa Kairangi web portal and should be accessed through existing websites to ensure a consistent user experience and a single, trusted source of truth, regardless of which agency owns the project or develops the content.

Branding and naming

The naming and branding of the online hub will be resolved as part of the project's communications workstream.

Governance and coordination

It is proposed that the online hub will be hosted via Te Awa Kairangi web portal, with content contributions from all partner agencies.

Integration and consistency

The hub will help overcome the challenges of multi-agency projects where fragmented communication and overlapping responsibilities can confuse the public and stakeholders. Supported by the travel behaviour change activities and the standing up of this Disruption Response Plan (including shared branding, tools, and protocols), the hub will enable agencies to speak with one voice and deliver timely, accurate, and consistent information.

Promotion and visibility

To be effective, the hub must be supported by a coordinated marketing campaign. This should include digital outreach, signage at transport hubs, engagement with employers and community groups, and visibility across all disruption-related communications, ensuring people know where to go and why it matters.

Resourcing

Establishing and maintaining the hub will require dedicated funding and resourcing to coordinated inputs from partner agencies, ensure it is useful, up to date, and responsive to public needs.

Case study: Sydney Travel Choices

The Sydney Travel Choices Program model offers a proven, practical way to communicate clearly with the public, businesses and affected stakeholder during disruption. The Program included a social marketing campaign and one-on-one support for trip generators (Macquarie University and large businesses) to change the way people moved through the precinct. During periods of disruption, the Travel Choices program led to a reduction in traffic coming into the CBD (13% reduction during AM peak)

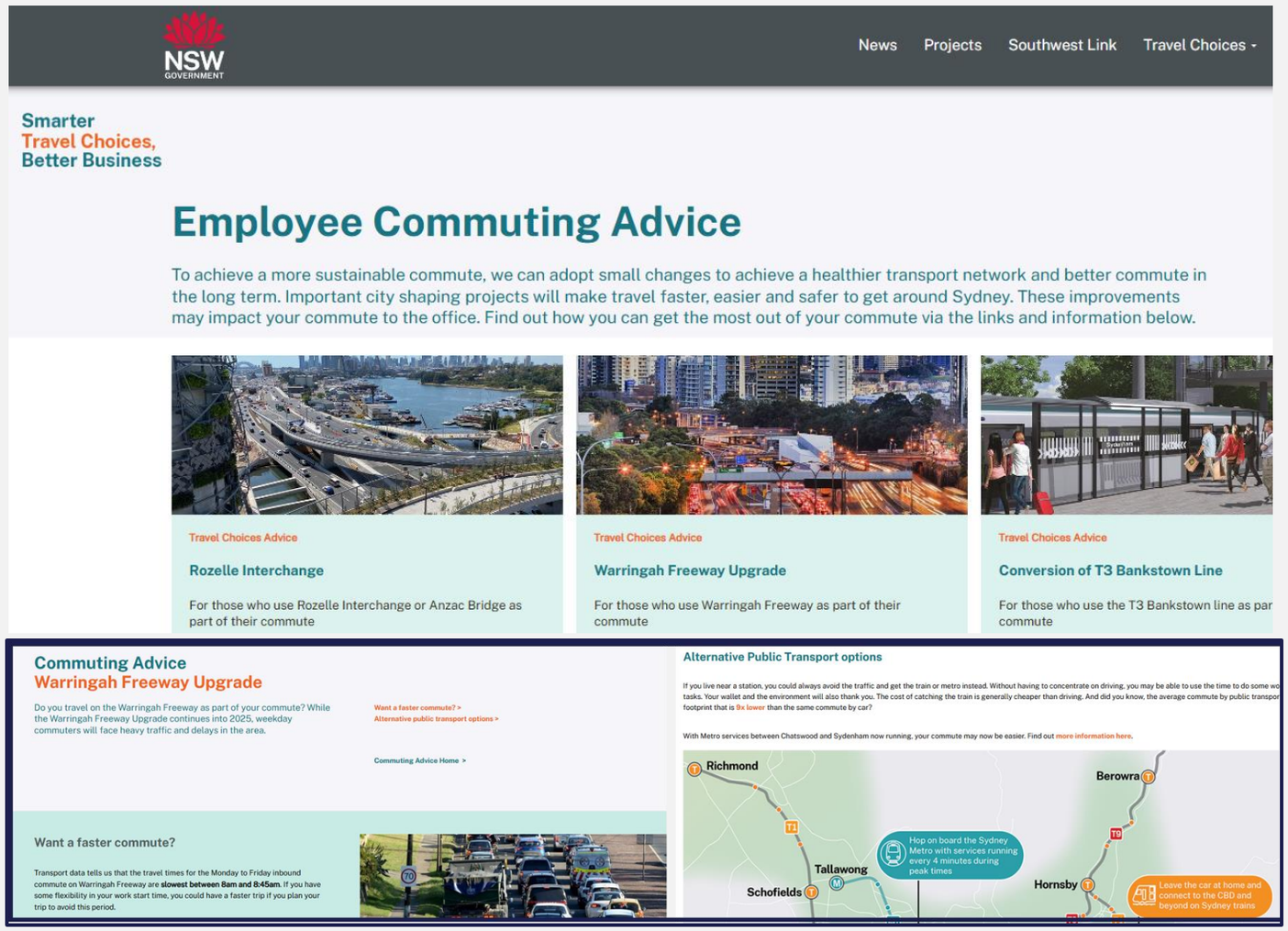

Figure 8.4: Screenshots from the Sydney Travel Choices webpage

Navigating the Action Plan

All actions within this Plan help deliver one of three key mechanisms: **Disruption Response Plan, Behaviour Change activities, or online hub**. To facilitate targeted, strategic resourcing and effective implementation, all actions have been prioritised and included in succinct lists on the following pages, organised by actions to complete upon adoption of this Disruption Response Plan:

- Priority 1, to be completed before the end of 2025
- Priority 2, to be completed in Q1 and Q2 2026
- Priority 3, to be completed in Q3 and Q4 2026
- Priority 4, to be completed in 2027

An overview of this prioritisation is provided in Figure 8.5. The following pages detail the actions within each timeframe.

Work in progress

Multiple planning activities are in progress and are related to implementation actions. These plans are detailed on the following page: "work in progress."

Priority 1 (2025) – 25 Actions

Immediate focus is on activating the Disruption Response Plan, establishing governance, and launching the online hub as a central information source. Key actions include setting up agency protocols, finalising communications plans, and assigning responsibilities. Travel behaviour change initiatives begin with temporary wayfinding, real-time congestion data, micromobility partnerships and public transport response plan actions ahead of Melling Station closure. Business engagement and flexible working support are also initiated, alongside preparation of key supporting plans.

Priority 2 (2026 Q1–Q2) – 11 Actions

This phase delivers business support, promotions, and infrastructure to encourage sustainable travel. Actions include discounted remote working hubs, expanded school cycling programs, and promotional campaigns. Implementation of the Business Engagement and Transitional Parking Plans continues, with support for local businesses to enhance digital services and delivery options.

Priority 3 (2026 Q3–Q4) – 3 Actions

Focus shifts to long-term mode shift and freight efficiency. Key actions include promoting cycling via Te Ara Tupua, trialling a consolidation hub for deliveries, and managing parking supply through carpooling, carsharing, and prioritised access.

Priority 4 (2027 and beyond) – 2 Actions

Final actions involve optimising CBD traffic routes and reviewing the overall disruption response. This includes signal changes to support rerouted traffic and active modes, and a structured evaluation to capture lessons learned for future projects.

The Action Plan is available in excel format to allow for easy filtering by priority, key mechanism, lead, budgets. Note: All costs provided in this action plan are high-level indicators and require further investigation and alignment with council guidelines.

Figure 8.5: Overview of action plan

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Actions - Work in progress

The following tables summarise mitigation measures already underway or committed – the 'work in progress.' Resulting actions to implement these plans are to be delivered from 2026 onwards and are detailed in the action tables following and in the Excel version.

Table 8.1: Work in progress actions

Mitigation action [Activity ID]	Description	Owner
Greater Wellington Public Transport Response Plan	To ensure the public transport continues to function efficiently, reliably, and accessibly, helping to offset the impact of the Melling Station relocation, disrupted road networks, parking reductions, and shifting travel patterns. Key elements of the plan to include service adjustments; temporary infrastructure (relocated stops, signage, bus priority lanes etc; Information on customer support options; mode integration (consideration of connection with micromobility, walking, bus and park-and-ride options); monitoring and feedback approach and mechanisms. **This is now complete and actions have been included within this action plan.**	Greater Wellington Regional Council/Metlink
Transitional Parking Plan [18]	The Transitional Parking Plan will identify new/ temporary parking provision to manage the impact of car park closures at Riverbank, at Melling Station and as a result of permanent and temporary street closures. It will identify alternative parking options, develop an approach to signage and wayfinding, prioritise essential users.	HCC
Communications & Engagement Plans [18]	Te Awa Kairangi partners are all in the process of developing their corresponding Communications and Engagement Plans. This includes the plan for Business resilience programme & city centre activations.	Project/agency specific
Traffic Management Plans [18]	Each project will be supported by a [Temporary] Traffic Management Plan to mitigate localised impacts on road users. These plans will be co-ordinated via Construction Interface Group among Te Awa Kairanga partners to optimise works and minimise disruption impact	Project specific
Business Engagement and Communications Plan [18]	A Business Engagement and Communications Plan Is being developed to ensure local businesses are informed, supported, and actively engaged throughout the disruption period caused by city transformation and infrastructure projects. The scope includes all businesses located in or impacted by major works across the city centre and surrounding areas during the disruption period. This Plan This plan is structured around three workstreams: **Engagement:** Ensure businesses are informed and connected through timely, tailored communications. **City Centre Activation:** Deliver city centre activations to attract foot traffic and maintain vibrancy. This includes pop-up events, street performances, seasonal displays, and promotions tied to new facilities. **Business Resilience Program:** Provide tools and support to help businesses adapt—such as a digital support hub, peer networks, advisory access, and disruption-preparedness resources.	HCC – Business and Engagement
Review effectiveness of the disruption response [16,36]	Continue to monitor travel time by car and public transport during the disruption period and make results available to the Tactical Group [dashboard]	Wellington Analytics Unit

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Actions – Priority 1 [2025]

Table 8.2: Actions – Priority 1

ID	Action	Lead/responsible party	Timing
1	Adopt and socialise Disruption Response Plan [will need buy in from partners e.g. Te Awa Kairangi]	HCC	2025 Q3
2	Establish information sharing protocols between agencies	Governance Group, Tactical Group	2025 Q3
3	Create and manage a sharing environment [SharePoint site] where all project delivery agencies can add relevant information e.g. timing, project extents, temporary traffic management plans etc	HCC	2025 Q3
4	Confirm communications and engagement governance arrangements identified as gaps in the Disruption Response Plan (refer to page 40)	Governance Group, Tactical Group	2025 Q3
5	Establish online hub/webpage incl agreement on branding and ownership	Governance Group, Tactical Group	2025 Q3
6	Agree ownership/lead for each action identified in the Disruption Response Plan [this list]	HCC: Disruption Response working group	2025 Q3
7	Develop and agree protocols set out in the Overarching Communication and Engagement Plan (incl: combined glossary of key terms, 'key messaging' cheat sheet; approvals processes for communications; ownership of relationships; format for shared style guides, and templates; protocols for emergency or reactive messaging; temporary signage and wayfinding branding, ownership, format, good accessibility guidelines & decision-making processes]	HCC: Comms and engagement team with buy-in from the Te Awa Kairangi Communications Delivery Team	2025 Q3
8	Hire/allocate a disruption response resource	HCC	2025 Q3
9	Calculate and incorporate walking and cycling times and routes in temporary wayfinding signage (refer to Overarching Communication and Engagement Plan which includes protocols around temporary wayfinding– [7])	HCC Disruption response resource and Metlink	2025 Q3
10	Advocate for: - A walking/cycling route through the Riverbank worksite - in-principle agreement to avoid concurrent closures on both sides of the river, recognising the impact on active transport and its role in easing congestion [GWRC] - Bikes on buses and trains - Bus routes 145 and 149 [& other replacement bus services] to accommodate wheelchairs or mobility devices - Delivery of pending interventions identified in the Hutt City Cycling and Micromobility SSBC in Petone/Alicetown [cycle friendly crossings and neighbourhood streets to connect The Esplanade and Jackson Street] - Accessible pedestrian access through the Waterloo station construction	HCC: Disruption response resource, GWRC	2025 Q3

See the complete Draft Hutt City Disruption Response Action Plan excel file for all Action Plan details including: priority, key mechanism, additional context for actions, lead, indicative budgeting over seven years, and timing by quarter.

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Actions – Priority 1 [2025] cont...

ID	Action	Lead/responsible party	Timing
12	Use Disruption Response Plan scenarios 0-4 and impact analysis (sections 3 and 4 of the Disruption Response Plan) to develop key messages for impacted stakeholders	HCC: Comms & engagement team	2025 Q3, ongoing
13	Develop Overarching Communications & Engagement Plan to establish governance around communications in a multi-agency environment, including a shared communications calendar	HCC: Comms & engagement team	2025 Q3
14	Integrate and communicate real-Time congestion data (develop a plan and begin integrating live data into public-facing platforms like Google Maps. This includes information on disruption, traffic management sites, alternative routes for all road users, update routes with photos and walk throughs of the disruption and alternatives)	HCC: Disruption response coordinator	2025 Q3, ongoing
16	Carry out monitoring of traffic and rail patronage to understand the impact. Share insights via a dashboard	HCC [with support from Wellington Analytics Unit]	2025 Q3, ongoing
17	Establish partnerships with e-bike/e-scooter sharing companies to maximise use of existing and new cycling facilities	HCC Disruption response resource	2025 Q3
11	Develop content and socialise disruption online hub/ web platform [start with critical information - disruption timing, project profiles, what kinds of impacts can be expected during disruption and what is expected from people (retime, remode, reroute, reduce), link it to real time information channels]. Continue to develop, adapt and add collateral.	HCC: Comms & engagement team	2025 Q4, ongoing
20	Engage with businesses to embrace flexible/hybrid working policies [e.g. flexible start/finish times, flexible in-office hours, incentives to use shared/co-working spaces]	HCC: Business & Economy team	2025 Q4
25	Implement active transport and engagement activities • School Engagement: Deliver Grade 2–3 cycle skills training in high schools and intermediates in affected areas • Bike Bus Workshops: Explore setup with operators • Share the Road: Run workshops with construction truck drivers to improve safety awareness. • E-Bike Trials: Host “Have-a-Go” days and guided rides in Western Hills and other areas to reduce barriers for new riders. • Cross-Town Cycling: Promote routes from Melling to Waterloo and educate on secure bike locking to reduce theft.	GWRC	2025 Q4

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Actions – Priority 1 [2025]cont...

ID	Action	Lead/responsible party	Timing
36	Route 149 ➢ Introduction of new Tirohanga service in the Western Hills. ➢ Providing access to Lower Hutt Valley for residents.	GWRC	Complete
37	Partial Meling line to continue (as opposed to full line closure)	GWRC	2025, Q4
38	Develop a Community Engagement Plan to facilitate direct engagement with passengers at stations ahead of station closure to support PT users through the change and advise on the mitigations/ PT alternatives in place	GWRC	Complete
39	Engage with passengers at stations ahead of station closure to support public transport users through the change and advise on the mitigations and public transport alternatives in place [Action 38 to Prepare]	GWRC	2025, Q3 & Q4
40	Bus routes 145 & 149 to continue to Waterloo station. [The operator has been engaged with regards to the change. Timetabling is being worked through]	GWRC	2025, Q4
41	Run an awareness campaign for Metlink customers impacted by disruption [Action 38 to Prepare]	GWRC	2025, Ongoing
42	In line with the Metlink's Customer Insights Plan, conduct regular customer satisfaction surveys, interviews and observations to monitor public transport user behaviours and needs	GWRC	2025, Ongoing
43	Extra Park and Ride facility in Petone [Space has been identified in Petone and Park and Ride designs are being worked though]	GWRC	2025, Q4

See the complete Draft Hutt City Disruption Response Action Plan excel file for all Action Plan details including: priority, key mechanism, additional context for actions, lead, indicative budgeting over seven years, and timing by quarter.

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Actions – Priority 2 [Q1 and Q2 2026]

Table 8.3: Actions – Priority 2

ID	Action	Lead/responsible party	Timing
15	Offer locations for remote working/co-working hubs; offer a discounted rate during disruption; start with existing bookable offerings and investigate options for new hubs. Monitor usage and flex depending on demand. Prioritise: Underutilised Council assets (e.g. libraries, community centres, civic halls with digital potential); Local centres with good walkability and amenities (e.g. Wainuiomata, Petone, Naenae, Taita, Stokes Valley); Education-adjacent sites (e.g. University of Otago campus)	HCC: Disruption response coordinator	2026 Q1
24	Implement Business Engagement and Communications Plan actions including business resilience programme [Action #19 to prepare]. Refer to Action #22 for City Centre Activations	HCC: Business & Economy team	2026 Q1
31	Deliver shared micromobility programme & secure parking facilities in key destinations: Hutt CBD; Queensgate Shopping Centre and Western Hutt train station [in the short term, this is likely going to be delivered by bike/e-scooter hire companies. In the longer term, provide additional secure bike parking to promote uptake of cycling post Te Ara Tupua].	HCC Disruption Response Resource	2026 Q1, Ongoing
26	Implement Transitional Parking sites identified in the Transitional Parking Plan [Action #18 to prepare]	HCC	2026 Q2
19	Install temporary wayfinding, including walking and cycling times & accessible information [Action #7 to prepare]	Project leads	2026 Q2 Ongoing
21	Work with the team responsible for the Strategic Plan for Cycleways to identify opportunities to expedite cycleway installation in disruption-impacted areas and those connecting to new facilities e.g. Te Ara Tupua	HCC: Disruption response coordinator	2026 Q2
27	Deliver Bikes in Schools Program & flex the Pedal Ready Program to cover schools in Hutt Central. Deliver to schools close to the City [Eastern Hutt School, St Oran's College, Saints Peter and Paul School, Hutt Valley High School, Sacred Heart College], expand to include heavy vehicles drivers with buy in from contractors	GWRC	2026 Q2
29	Support local businesses to expand online services and delivery options, including working with the hospital to expand telehealth offering	HCC: Business & Economy team	2026 Q2
22	Deliver City Centre Activations to attract people into the city and to activate new facilities as they are completed	HCC: Business & Economy team	2026 Q2, Ongoing
30	Run promotional events and packages to encourage uptake of public transport and active mode: consider off-peak incentives for public transport use, subsidised e-bike loan programs, competitions and recognition integrated with the online hub, leverage national/regional events e.g. bike work month, Movin March	HCC, GWRC	2026 Q2, Ongoing
28	Continue to deliver 'Road Safety' activities around schools, prioritise schools that can be connected to exisiting and new walking/cycling infrastrcture e.g. the Beltway, Te Ara Tupua	HCC	2026 Q2, Ongoing

See the complete Draft Hutt City Disruption Response Action Plan excel file for all Action Plan details including: priority, key mechanism, additional context for actions, lead, indicative budgeting over seven years, and timing by quarter.

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Actions – Priority 3 [Q3 and Q4 2026]

Table 8.4: Actions – Priority 3

ID	Action	Lead/responsible party	Timing
23	Coordinate with project teams to provide parking alternatives: promote carpooling, carsharing, manage on-street parking, partner to optimise underutilised parking spaces, prioritise short-stay, delivery needs and accessible parking, identify sites for long-stay cycling parking. These initiatives may be delivered through the Transitional Parking Plan [Action #19 to prepare]	HCC: Disruption response coordinator	2026 Q3
32	Trial a consolidation hub to reduce movements related to deliveries in the city centre: consider parking bays within a covered carpark/Queensgate Shopping centre with space that allows delivery providers to consolidate goods. Work with local providers e.g. Nocar cargo. These initiatives may be delivered through the Business Resilience Program [Action #18 to prepare - Business Resilience Program]	HCC Business Engagement team	2026 Q3
34	Promote uptake of cycling leveraging new facilities like the Te Ara Tupua for trips between Hutt City and Wellington.	HCC lead with NZTA support	2026 Q3, Ongoing
35	Review effectiveness of the disruption response and flex/adapt as needed (refer to page 45)	HCC: Disruption Response Coordinator	2026 Q, Ongoing

Actions – Priority 4 [2027 and beyond]

Table 8.5: Actions – Priority 4

ID	Action	Lead/responsible party	Timing
33	Optimise key CBD routes to support rerouted traffic and active modes. This includes: • Removing signals at SH2/Melling and converting it to a left-in/left-out configuration. • Focusing on local roads and alternative SH2 exit points to maintain network efficiency. • Reviewing and modifying signals at key intersections (e.g. Melling Link/SH2 & Tirohanga/SH2, Kings Crescent/Cornwall Street, Waterloo Road/Cornwall Street) as needed. • Once active mode and micromobility schemes are confirmed, identify and implement signal changes to support those journeys. • Consider bus priority routes Note: No funding is currently allocated for these interventions.	HCC/WTOC	2027

See the complete Draft Hutt City Disruption Response Action Plan excel file for all Action Plan details including: priority, key mechanism, additional context for actions, lead, indicative budgeting over seven years, and timing by quarter.

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Actions – Priority 3 [Q3 and Q4 2026]

Table 8.4: Actions – Priority 3

ID	Action	Lead/responsible party	Timing
23	Coordinate with project teams to provide parking alternatives: promote carpooling, carsharing, manage on-street parking, partner to optimise underutilised parking spaces, prioritise short-stay, delivery needs and accessible parking, identify sites for long-stay cycling parking. These initiatives may be delivered through the Transitional Parking Plan [Action #19 to prepare]	HCC: Disruption response coordinator	2026 Q3
32	Trial a consolidation hub to reduce movements related to deliveries in the city centre: consider parking bays within a covered carpark/Queensgate Shopping centre with space that allows delivery providers to consolidate goods. Work with local providers e.g. Nocar cargo. These initiatives may be delivered through the Business Resilience Program [Action #18 to prepare - Business Resilience Program]	HCC Business Engagement team	2026 Q3
34	Promote uptake of cycling leveraging new facilities like the Te Ara Tupua for trips between Hutt City and Wellington.	HCC lead with NZTA support	2026 Q3, Ongoing
35	Review effectiveness of the disruption response and flex/adapt as needed (refer to page 46)	HCC: Disruption Response Coordinator	2026 Q, Ongoing

Actions – Priority 4 [2027 and beyond]

Table 8.5: Actions – Priority 4

ID	Action	Lead/responsible party	Timing
33	Optimise key CBD routes to support rerouted traffic and active modes. This includes: • Removing signals at SH2/Melling and converting it to a left-in/left-out configuration. • Focusing on local roads and alternative SH2 exit points to maintain network efficiency. • Reviewing and modifying signals at key intersections (e.g. Melling Link/SH2 & Tirohanga/SH2, Kings Crescent/Cornwall Street, Waterloo Road/Cornwall Street) as needed. • Once active mode and micromobility schemes are confirmed, identify and implement signal changes to support those journeys. • Consider bus priority routes Note: No funding is currently allocated for these interventions.	HCC/WTOC	2027

See the complete Draft Hutt City Disruption Response Action Plan excel file for all Action Plan details including: priority, key mechanism, additional context for actions, lead, indicative budgeting over seven years, and timing by quarter.

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Indicative funding requirements

The table below identifies indicative costs associated with the delivery of this Disruption Response Plan. All costs in this action plan are high level indicators and need to be further investigated and aligned with council guidelines.

Table 8.5: Indicative costs

Year	2025	2026	2027	2028	2029	2030	2031
Total cost	$ 385,000	$ 490,000	$ 410,000	$ 340,000	$ 340,000	$ 340,000	$ 340,000

See the complete Draft Hutt City Disruption Response Action Plan excel file for commentary associated with the cost estimates. Refer to Column R.

Appendix A: Hutt City Network Disruption –AIMSUN Modelling

17th June 2025

Wellington Transport Analytics Unit

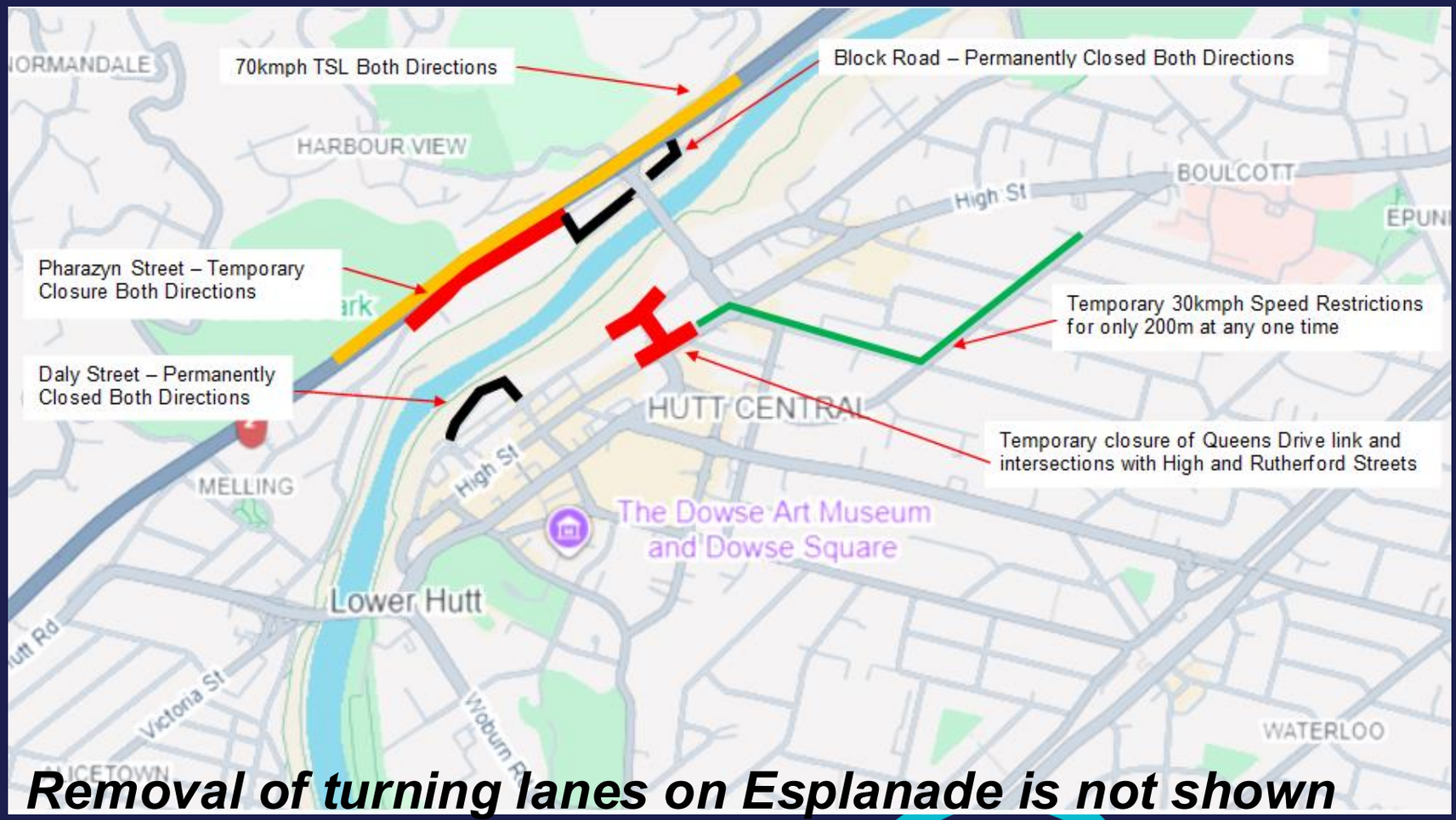
Background and Timeline

- Over the period from late 2025 to 2030, the Te Wai Takamori o Te Awa Kairangi (Te Awa Kairangi) construction and others works being undertaken on the Hutt City transport network will result in reductions in traffic capacity and changes in travel patterns
- If not coordinated and planned, these changes could result in significant congestion and economics impacts for businesses and residents of the Hutt Valley
- A disruption management plan is being developed to understand the potential impacts, coordinate the work and develop appropriate mitigation to manage the impacts
- Indicative modelling has been undertaken to inform the development of the Draft Disruption Management Plan

01. Disruption Scenario 1

Disruption Scenario

- The modelling reported in this section summarises results from a ‘worst case’ scenario that could occur between **September 2026 and May 2027**



Removal of turning lanes on Esplanade is not shown

Modelling approach

- The approach taken to representing the disruption scenario in the Hutt AIMSUN model is considered pragmatic and appropriate, and builds on knowledge of how people have responded to similar disruptions on both the Hutt City and Wellington networks to understand potential network impacts under 'plausible' future scenarios where people do change behaviour – travel earlier / later, travel less frequently, change the destination, park elsewhere
- The technical approach was as follows:
  - Step 1 - representing the capacity reductions and closure as per the plans and a broader reduction in car trips to the CBD
  - Step 2 - removing commuter car trips from the Riverbank car park and not reallocating to elsewhere in the CBD, with the assumption that people will disperse to park on the City fringe and impacts would be mitigated
- Two tests were undertaken
  - Test 1 - Reducing overall demand to the CBD by 10% at peak times as a proxy for reduced accessibility, peak spreading and some redistribution of trips to other destinations(referred to as 'disruption scenario'). This test was unstable in the AIMSUN model and did not provide reliable results, even following a change to the assumptions to allow more trips to dynamically re-route (as would be the case in reality) to change their route to avoid congestion
  - Test 2 – Test 1 + reducing demand elsewhere in the network by 5% as a proxy for broader peak spreading and behaviour change(referred to as 'disruption +5% scenario')
- The analysis has focused on understanding the impacts on congestion, levels of service and travel times for key routes to inform disruption management planning
- It should be noted that the modelling is one component of disruption management planning and the results should be interpreted as indicative

Assumptions – Test 1 (Disruption)

1. Riverbank Car Park: Remove all car demand associated with the Riverbank Car Park:
   - Remove 1255 trips from the entire AM period (6 – 10 am)
   - Remove 1524 trips from the entire PM period (3 – 7 pm)
2. Melling Station: Remove all car demand associated with Melling Station. Redistribute this demand evenly between Petone Station and Waterloo Station.
3. As a result of the Pharazyn Rd closure, the table below shows the reduction for each period

AM Car	AM Truck	IP Car	IP Truck	PM Car	PM Truck
245	17	274	17	385	13
AM Car	**AM Truck**	**IP Car**	**IP Truck**	**PM Car**	**PM Truck**
1225	**25**	**2154**	**32**	**2682**	**25**

4. Apply a 10% reduction in demand to and from Hutt CBD. The table below summarises the resulting reductions for each time period.

The table below summarises the total demand reduction as a result of these assumptions.

	AM Car	AM Truck	IP Car	IP Truck	PM Car	PM Truck
Reduction	2725	42	2427	50	4591	38
Reduction as % of overall network-wide trips (%)	1.9%	0.6%	1.7%	0.7%	2.3%	0.6%
CBD Trips	13657	256	21704	326	28587	254
Reduction as a % of overall trips to CBD (%)	20%	16.5%	11.2%	15.2%	16.1%	15.1%

Assumptions – Test 2 (Disruption + 5%)

- @@@

As noted previously, when the PM peak disruption scenario was run through the AIMSUN model, the outputs were unstable and therefore an alternative scenario with a further 5% reduction in broader network wide trips was created (the reduction of 10% still applied to trips to / from CBD).

The table below summarises the total reduction in car trips as a result of all of the assumptions.

	AM Car	AM Truck	IP Car	IP Truck	PM Car	PM Truck
Reduction	9163	373	8338	399	12960	328
Reduction/Base Demand (%)	6.4%	5.4%	6.0%	5.4%	6.6%	5.4%

The input path assignment was adjusted to allow 70% of vehicles to dynamically adjust their routes more quickly in response to the disruption (compared to the standard model assumption of 40%). This is considered plausible over the medium term as people choose different routes to avoid congestion resulting from the network disruptions.

Assumptions – Signal Phasing

- @@@

Signal phasing has been optimised in the disruption scenarios to accommodate road closures and changes in traffic volumes at the following intersections:

- SH2 / Melling Link / Tirohanga Rd – in response to the closure of Block Rd
- Cornwall St / Kings Cres – to manage increased traffic, particularly heavy movements from Kings Cres West to Cornwall St North
- Cornwall St / Waterloo Rd – to align signal timing and phasing with Cornwall St / Kings Cres

Assumptions - Hutt CBD Network under disruption scenario

The network plots above show the network for the ‘base’ and disruption scenarios – it clearly shows how capacity has been removed from the central CBD

Model outputs and interpretation

The following slides summarise the following model outputs for the Base, Disruption and Disruption + 5% scenarios:

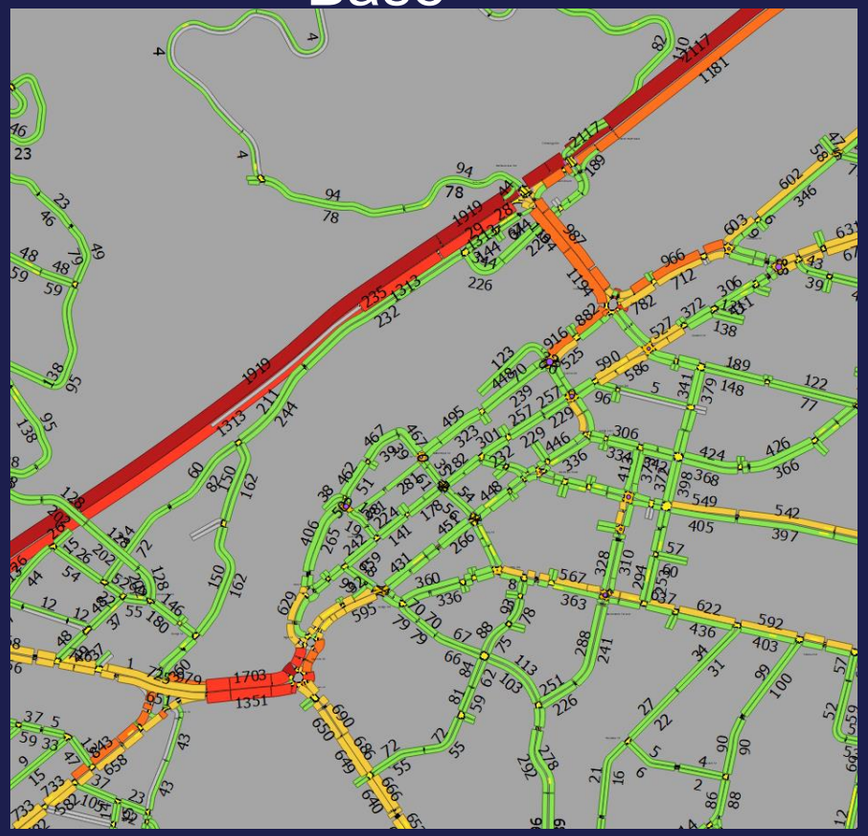
- Traffic volumes – and changes compared to the Base scenario
- Congestion
- Levels of Service

The following should be noted when interpreting the results:

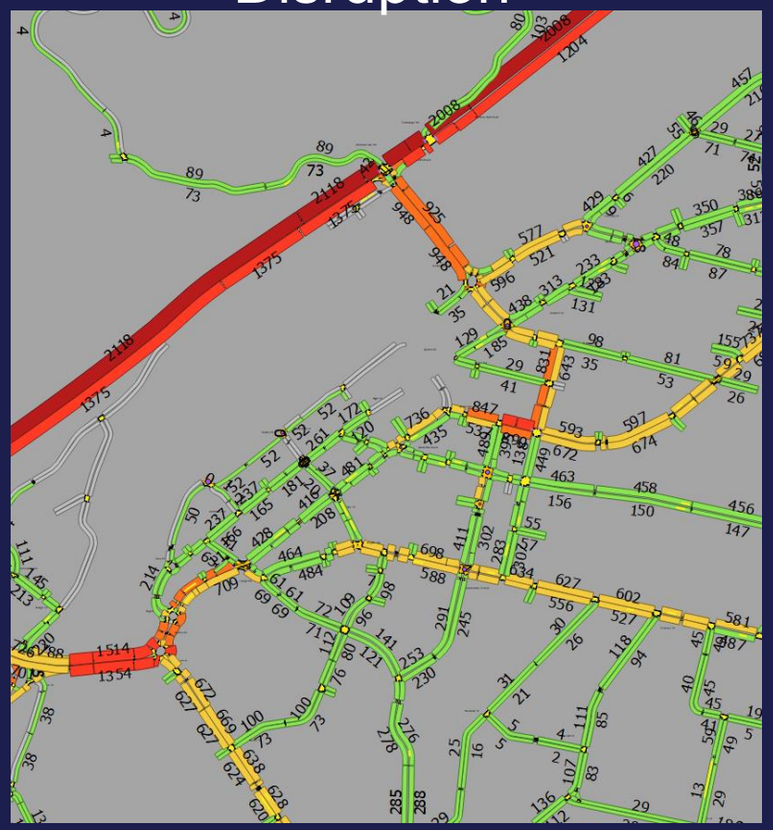
- Currently only the PM peak was run through the model – this is the most congested time period and as such this approach is considered appropriate
- The 'Disruption' scenario was unstable when run through AIMSUN, and therefore this should be taken into account when interpreting these results
- The model allow 70% of vehicles to dynamically respond to the increased congestion and use alternative routes to access their destinations – this is considered appropriate given the duration of the disruption and likelihood that people would change routes; if the proportion were higher, then the congestion could be further mitigated
- A level of behaviour change – through trip re-timing, changing of destination (i..e different car parks), travelling less frequently or using different modes - has been assumed. Whilst this is considered appropriate (to some extent it is based on observations from similar disruption events around the Wellington Region where behaviour change resulted in the impacts being less severe than modelled under a worst-case scenario) the modelling should be interpreted in this context as representative of a weekday PM peak around a month after the disruption scenario has been in placed, giving people time to change their behaviour
- If the level of behaviour change is less than assumed through the modelling – broadly representative of a 5% reduction in trips during the PM peak hour and up to a 15% reduction in trips to / from the Hutt CBD – then the congestion and network impacts could be greater than indicated by the modelling

PM Static Model– Average hourly traffic volumes (3pm to 7pm)

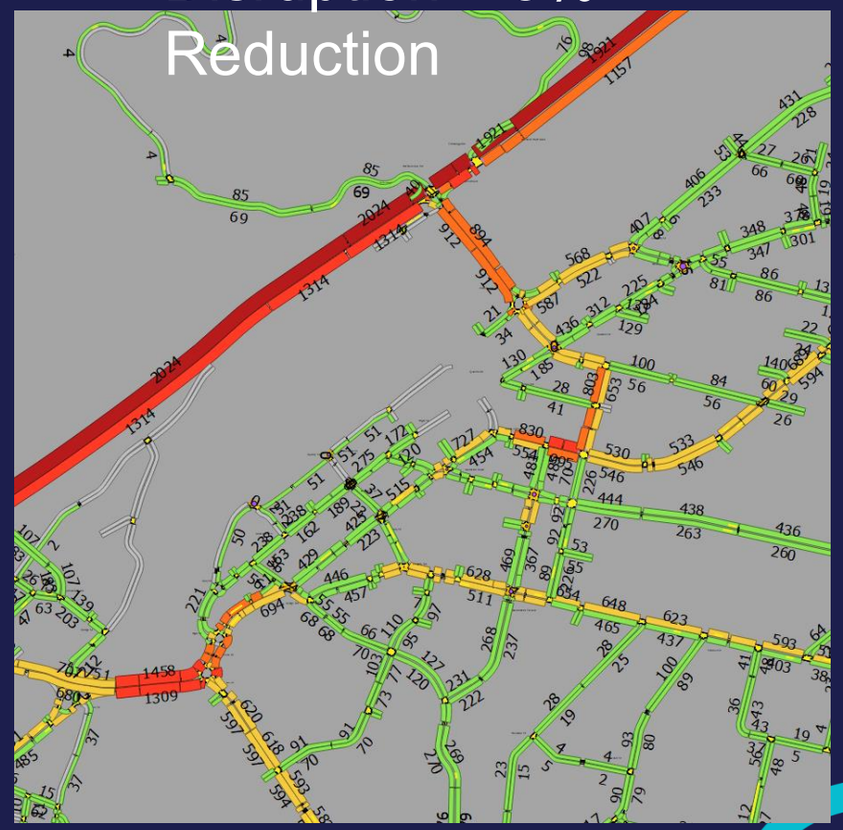
Base



Disruption



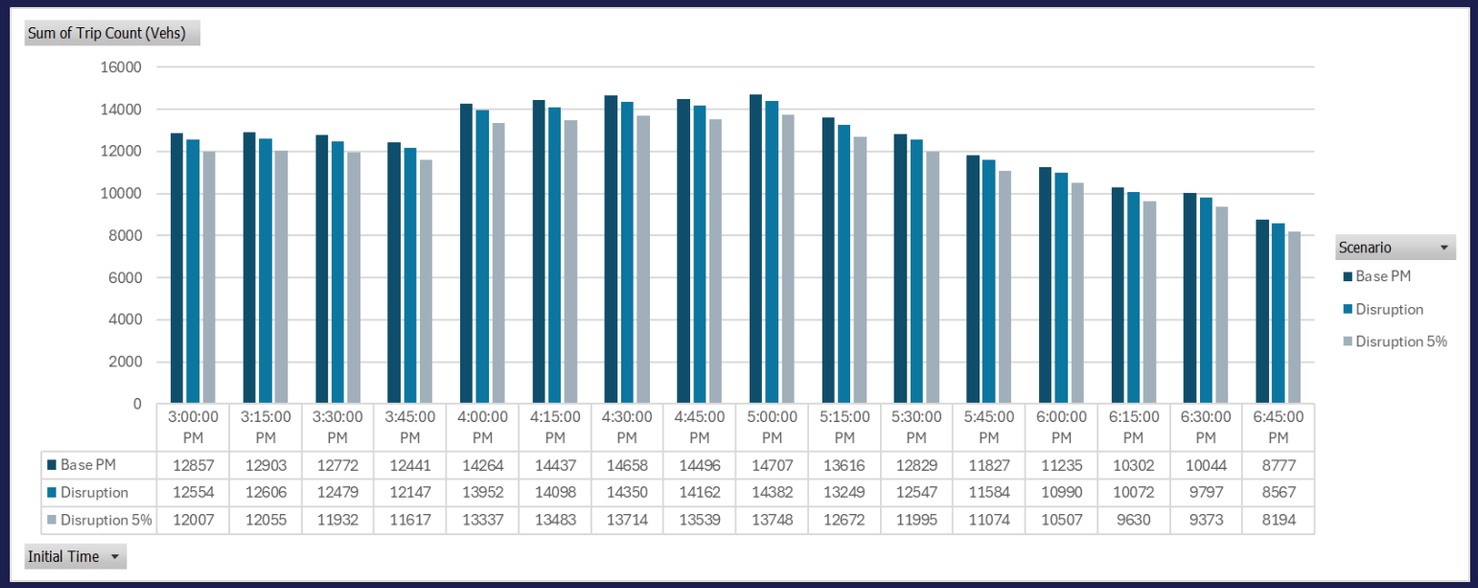
Disruption – 5% Reduction



- Increased traffic on SH2 northbound due to reduced capacity in the Hutt CBD
- Increased traffic on Kings Cres and Cornwall St due to re-assignment of traffic to avoid closures

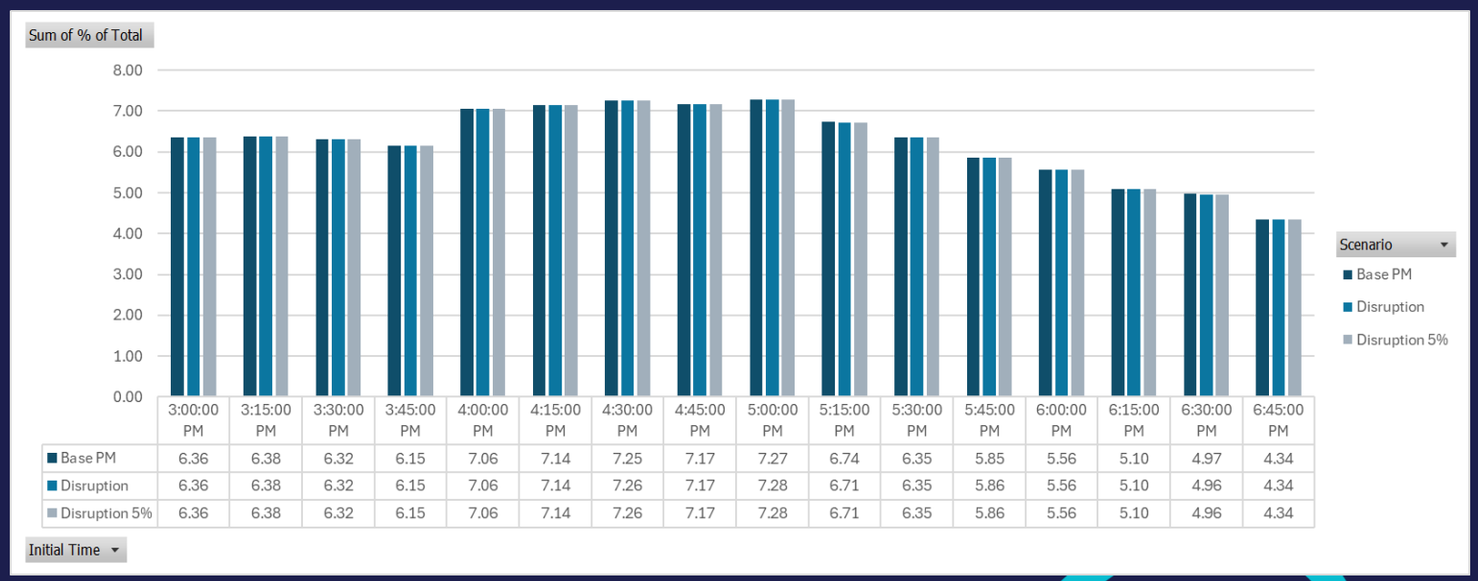
PM Peak traffic volumes by 15 minute time period

Trip Count



	3:00:00 PM	3:15:00 PM	3:30:00 PM	3:45:00 PM	4:00:00 PM	4:15:00 PM	4:30:00 PM	4:45:00 PM	5:00:00 PM	5:15:00 PM	5:30:00 PM	5:45:00 PM	6:00:00 PM	6:15:00 PM	6:30:00 PM	6:45:00 PM
Base PM	12857	12903	12772	12441	14264	14437	14658	14496	14707	13616	12829	11827	11235	10302	10044	8777
Disruption	12554	12606	12479	12147	13952	14098	14350	14162	14382	13249	12547	11584	10990	10072	9797	8567
Disruption 5%	12007	12055	11932	11617	13337	13483	13714	13539	13748	12672	11995	11074	10507	9630	9373	8194

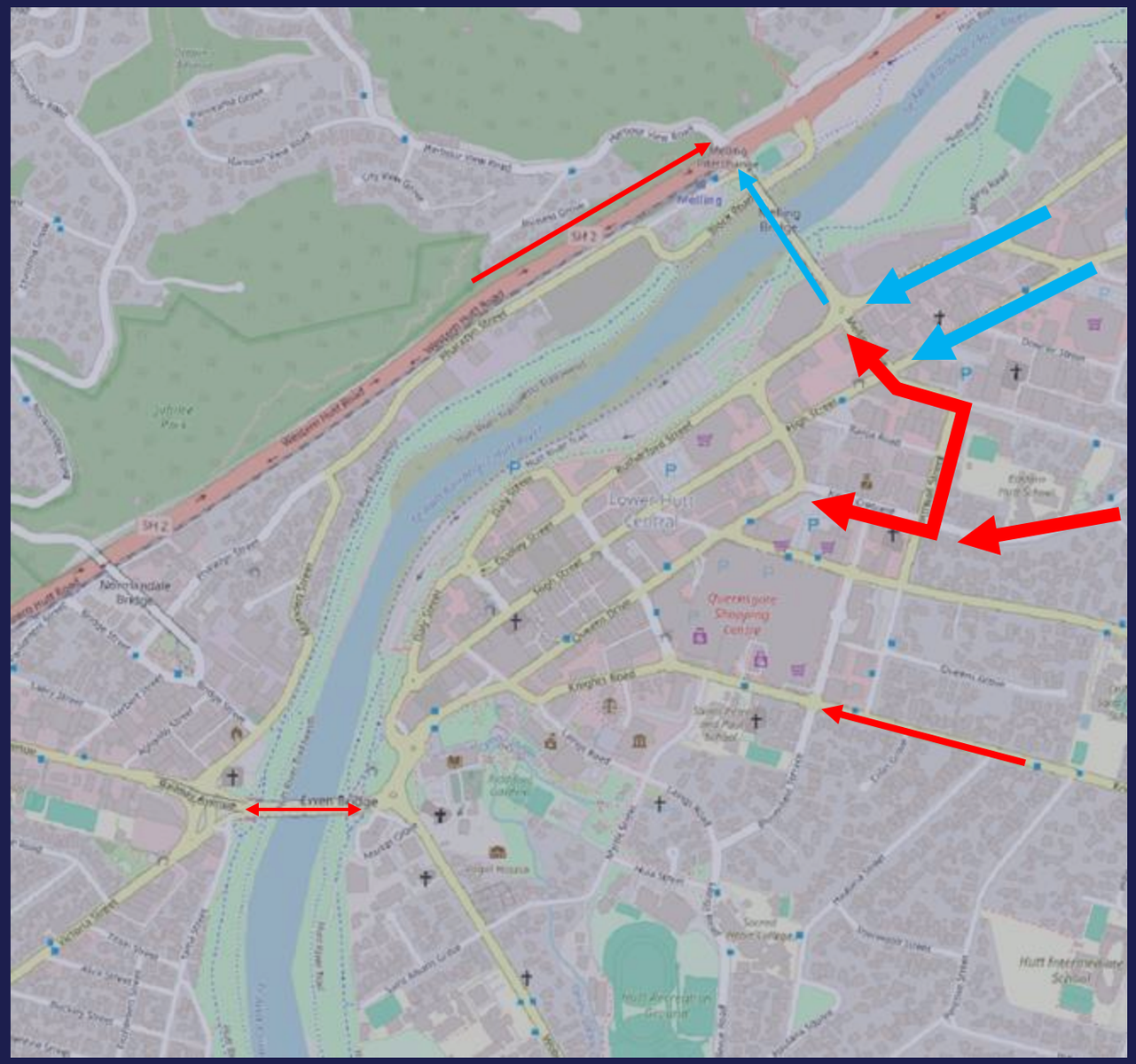
% of Total



	3:00:00 PM	3:15:00 PM	3:30:00 PM	3:45:00 PM	4:00:00 PM	4:15:00 PM	4:30:00 PM	4:45:00 PM	5:00:00 PM	5:15:00 PM	5:30:00 PM	5:45:00 PM	6:00:00 PM	6:15:00 PM	6:30:00 PM	6:45:00 PM
Base PM	6.36	6.38	6.32	6.15	7.06	7.14	7.25	7.17	7.27	6.74	6.35	5.85	5.56	5.10	4.97	4.34
Disruption	6.36	6.38	6.32	6.15	7.06	7.14	7.26	7.17	7.28	6.71	6.35	5.86	5.56	5.10	4.96	4.34
Disruption 5%	6.36	6.38	6.32	6.15	7.06	7.14	7.26	7.17	7.28	6.71	6.35	5.86	5.56	5.10	4.96	4.34

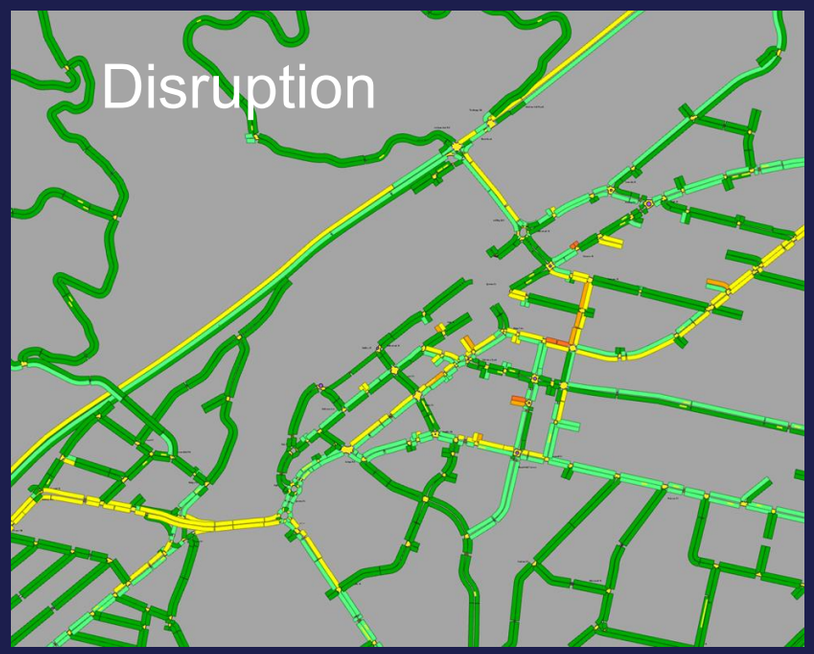
- In the Disruption 5% scenario, peak traffic volume by time period decreases by approximately 6.6% compared to the Base scenario.
- The proportion of total traffic varies across time slices, but remains consistent across the three scenarios
- Traffic volumes during the peak 4.45pm to 5pm time slice are around 10% higher than at 3.30pm and 20% higher than 6pm, from which it can be implied that capacity exists for the peaks to be spread (from 5pm to 6pm) as a form of behaviour change to mitigate some of the impacts of the disruption

PM peak – forecast change in traffic volumes for ‘disruption + 5%’ scenario



- **SH2 NB** – 5% to 10% increase
- **Melling Bridge** – 20% less westbound (due to access being restricted)
- **Harcourt Werry** – 50% decrease
- **Melling Link / Pretoria / Cornwall-** 50% increase, used as the alternative to access CBD destinations
- **Kings Crescent** – 50% increase east of Roundabout, 100% increase west
- **Knights Rd** – 10% to 20% increase
- **Woburn / Queens** – small changes in volumes

PM Static Model – Average Levels of Service (3pm to 7pm)



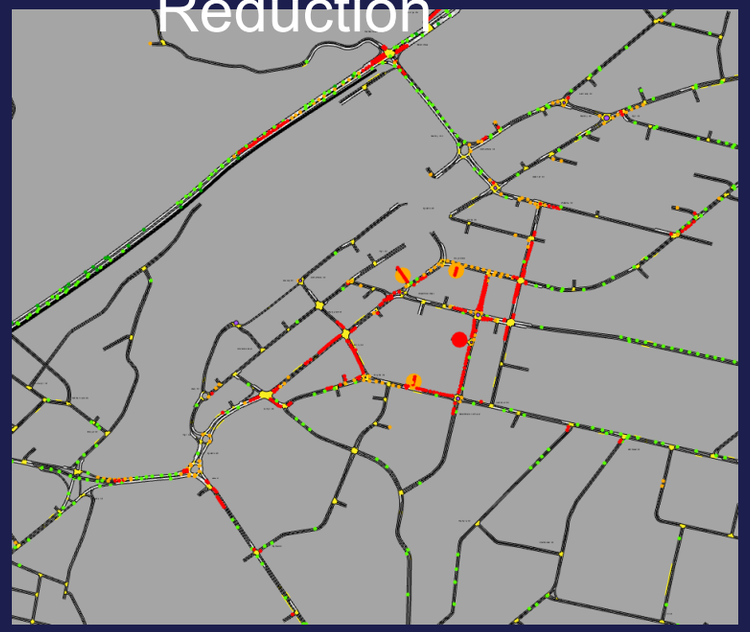
- As a result of the road closures, the main pressure point shifts to the Kings Crescent / Cromwell Street intersection, where the level of service is expected to decline.
- Levels of service also decrease on Kings Crescent

PM Micro Simulation Model – Congestion (4pm)

Base

Disruption

Disruption – 5% Reduction

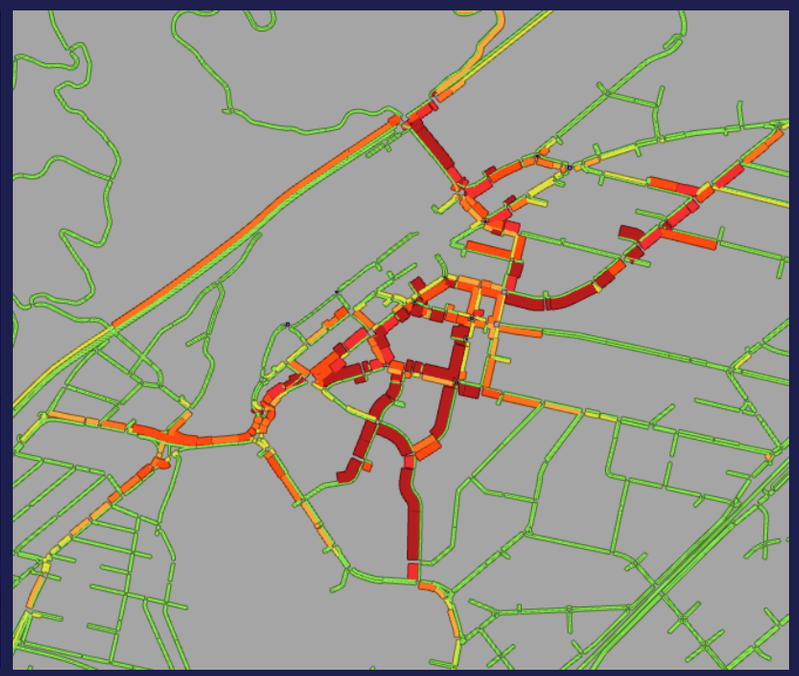


- Both scenarios result in an increase in congestion to the easdt of Hutt CBD – along Queens Drive, Bloomfield Terrace, Cornwall Street
- The Disruption scenario introduces significant network stress, creating congestion hotspots to to the east of the CBD that were not present in the Base scenario.
- The 5% reduction scenario mitigates some of the negative effects. Congestion remains, but it becomes more manageable.

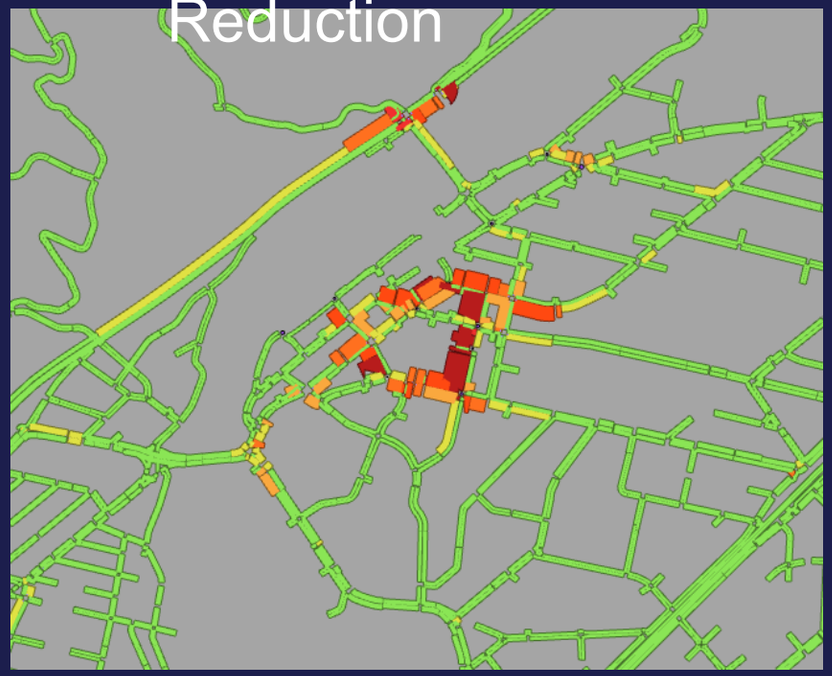
PM Microsimulation Model – Density / Congestion (4:00 pm)

Base (Average)

Disruption

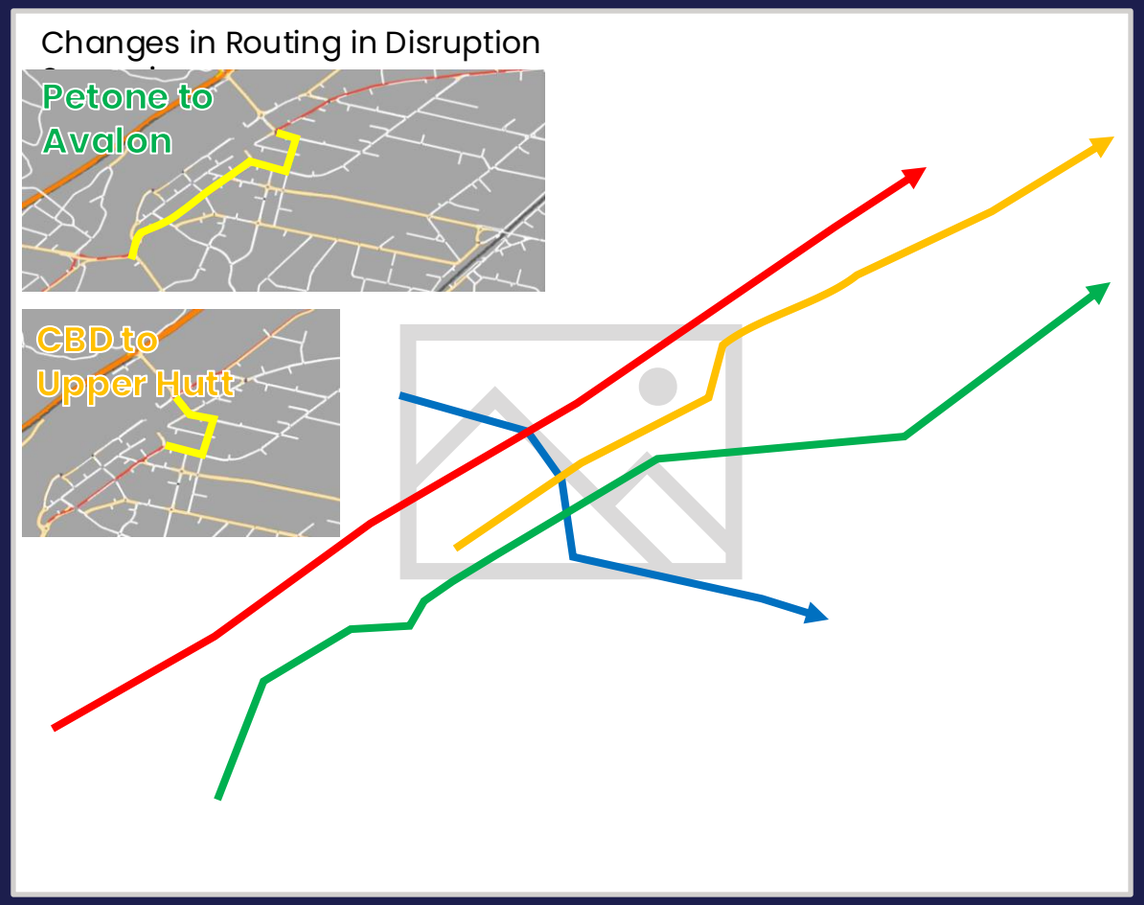


Disruption – 5% Reduction



- Less congestion on Harcourt Werry, Central CBD, increase in congestion on approach to Melling
- Queens Drive – more congested as traffic reroutes from High St and Rutherford
- Melling Link / Pretoria Street / Cornwall Road– increased congestion due to increased traffic
- Traffic pushed out of central CBD, increasing congestion east of CBD

PM peak – change in travel times and routes



CBD to Taita (and vv)

- Approximately 5 to 10 minute increase

Harbour View to Waterloo (and vv)

- Approximately 3 to 5 minute increase

Cuba Street to Boulcott (and vv)

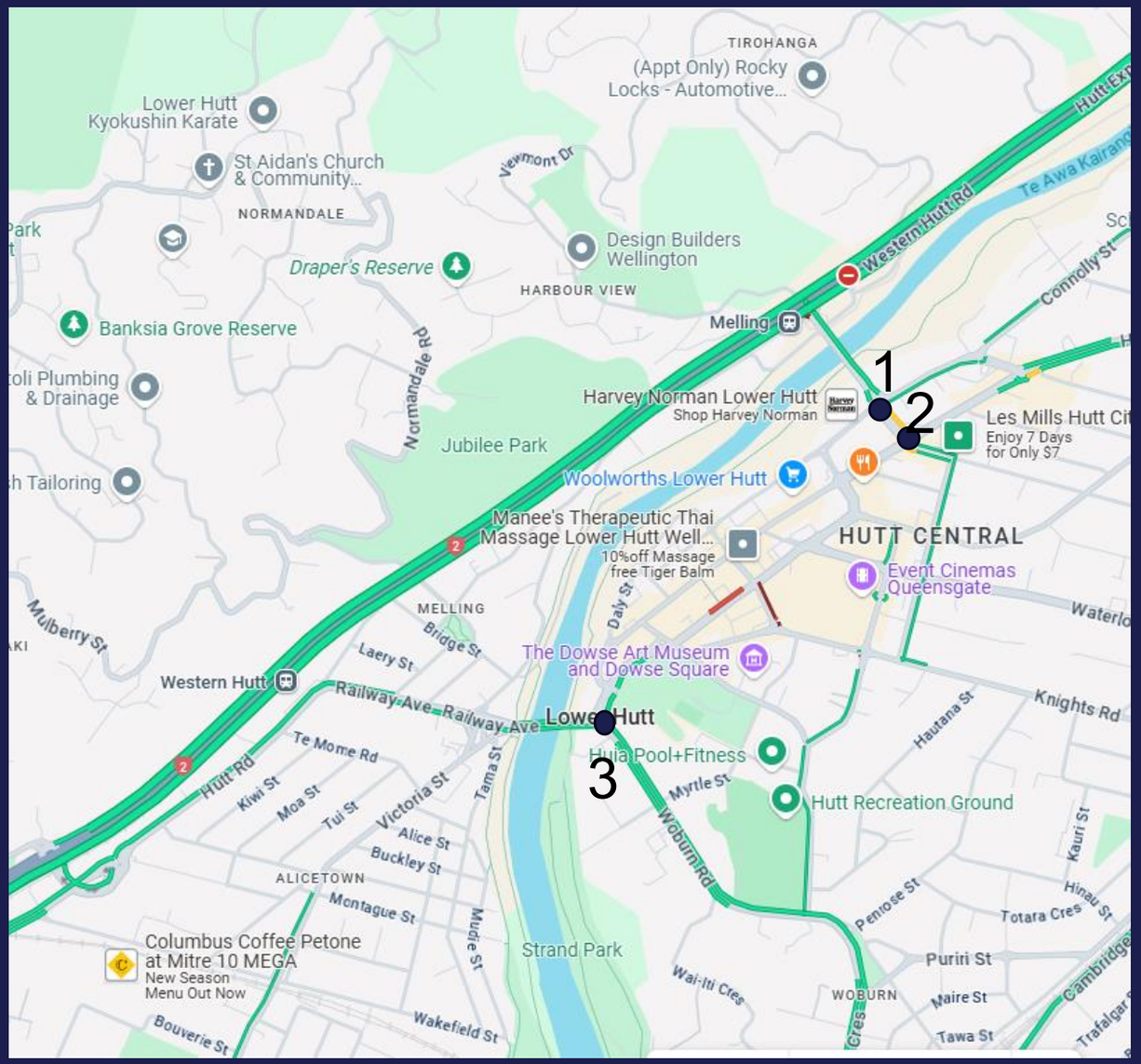
- Approximately 5 to 15 minute increase

SH2 Northbound and Northbound

- No material change

- PM peak modelled travel time changes have been estimated for the disruption scenario
- The times are expressed as a range, reflective of the uncertainty relating to the extent to which people will change behaviour to avoid / mitigate congestion; a higher level of behaviour change could result in a lesser increase in travel times, whilst less behaviour change could result in travel times at the higher end of the range

PM peak - Intersections for LoS and average delay per vehicle



These slides compare the intersection delay based level of service (LOS) for each movement. Delays are extracted using Aimsun sub-paths of the turning movements.

1. Melling Link / Rutherford
2. Melling Link / High Street
3. Railway Ave / Woburn

LOS	Roundabout	Priority	Signals
A	<= 10	<= 10	<= 10
B	10 - 20	10 - 15	10 - 20
C	20 - 35	15 - 25	20 - 35
D	35 - 55	25 - 35	35 - 55
E	55 - 80	35 - 50	55 - 80
F	> 80	> 50	> 80

PM peak - Intersections for LoS and average delay per vehicle

Description		Turn LoS		Average Delay Per Veh	
Intersection	Approach	Base PM	Disruption -5% Reduction Scenario PM	Base PM (sec)	Disruption -5% Reduction Scenario PM (sec)
Melling Link / Rutherford	Melling North LT	B	A	11.3	4.3
	Melling North Thru	B	B	10.5	14.2
	Melling North RT	B	C	10.5	28.7
	Rutherford East LT	B	C	15.8	28.6
	Rutherford East Thru	B	C	15.8	23.2
	Rutherford East RT	D	C	38.1	29.7
	Melling South LT	C	A	20.9	8.0
	Melling South Thru	C	B	26.0	13.4
	Melling South RT	D	C	45.1	34.3
	Rutherford West LT	C	E	25.0	59.7
	Rutherford West Thru	F	F	109.3	128.8
	Rutherford West RT	F	F	120.9	191.8
Melling Link / High Street	Melling North LT	A	A	5.8	2.5
	Melling North Thru	C	C	24.7	30.3
	Melling North RT	C	C	25.3	22.0
	High Street East LT	B	D	15.0	42.7
	High Street East Thru	C	C	22.5	21.6
	High Street East RT	C	C	24.8	20.2
	Pretoria South LT	B	A	11.2	2.7
	Pretoria South Thru	B	A	16.8	9.1
	Pretoria South RT	B	B	14.4	11.2
	High Street West LT	B	A	17.2	4.7
	High Street West Thru	B	C	18.5	30.4
	High Street West RT	B	B	16.2	18.3
Railway Ave / Woburn	Woburn LT	B	A	11.4	6.9
	Woburn RT	C	B	20.2	12.8
	Railway Thru	A	A	8.7	8.0
	Railway RT	A	A	9.2	8.4
	Queens LT	B	B	13.8	13.1
	Queens Thru	C	B	20.2	18.5

Melling Link / Rutherford:

- Some approaches improved (e.g. Melling North LT: LoS B to A)
- Rutherford West movements would face more delays, but volumes are expected to be very low due to the closure of Queens Dr / Rutherford St roundabout – minimal impact on overall network performance.

Melling Link / High St:

- Mixed impact, with some movements improved, and others worsened, particularly High Street East LT movement.

Railway Ave / Woburn

- Minimal Impact, all movements remain at LoS A or B with low delays

PM peak - Intersections for LoS and average delay per vehicle

Description		Turn LoS		Average Delay Per Veh	
Intersection	Approach	Base PM	Disruption -5% Reduction Scenario PM	Base PM (sec)	Disruption -5% Reduction Scenario PM (sec)
Melling Link / Rutherford	Melling North LT	B	A	11.3	4.3
	Melling North Thru	B	B	10.5	14.2
	Melling North RT	B	C	10.5	28.7
	Rutherford East LT	B	C	15.8	28.6
	Rutherford East Thru	B	C	15.8	23.2
	Rutherford East RT	D	C	38.1	29.7
	Melling South LT	C	A	20.9	8.0
	Melling South Thru	C	B	26.0	13.4
	Melling South RT	D	C	45.1	34.3
	Rutherford West LT	C	E	25.0	59.7
	Rutherford West Thru	F	F	109.3	128.8
	Rutherford West RT	F	F	120.9	191.8
Melling Link / High Street	Melling North LT	A	A	5.8	2.5
	Melling North Thru	C	C	24.7	30.3
	Melling North RT	C	C	25.3	22.0
	High Street East LT	B	D	15.0	42.7
	High Street East Thru	C	C	22.5	21.6
	High Street East RT	C	C	24.8	20.2
	Pretoria South LT	B	A	11.2	2.7
	Pretoria South Thru	B	A	16.8	9.1
	Pretoria South RT	B	B	14.4	11.2
	High Street West LT	B	A	17.2	4.7
	High Street West Thru	B	C	18.5	30.4
	High Street West RT	B	B	16.2	18.3
Railway Ave / Woburn	Woburn LT	B	A	11.4	6.9
	Woburn RT	C	B	20.2	12.8
	Railway Thru	A	A	8.7	8.0
	Railway RT	A	A	9.2	8.4
	Queens LT	B	B	13.8	13.1
	Queens Thru	C	B	20.2	18.5

Melling Link / Rutherford:

- Some approaches improved (e.g. Melling North LT: LoS B to A)
- Rutherford West movements would face more delays, but volumes are expected to be very low due to the closure of Queens Dr / Rutherford St roundabout – minimal impact on overall network performance.

Melling Link / High St:

- Mixed impact, with some movements improved, and others worsened, particularly High Street East LT movement.

Railway Ave / Woburn

- Minimal Impact, all movements remain at LoS A or B with low delays

Conclusions

The following conclusions can be drawn from the modelling:

- The disruption scenario that has been modelled assumed that the Riverbank car park is closed, alongside Daly Street, Pharazyn Street, and the Rutherford / High and Queens / High roundabouts
- This reduces accessibility to key destinations in the centre of Lower Hutt City, and also reduces the capacity in the network to cater for cross city movements
- A level of behaviour change is required – including a 10% drop in car trips to / from Hutt CBD at peak times and a smaller 5% drop in trips on the wider Hutt City network – to mitigate congestion and impacts from the closures
- The major network impacts are forecast to be as follows:
  - Increased traffic volumes and congestion Kings Crescent / Queens Drive / Bloomfield Road / Cornwall street as traffic shifts eastwards from Rutherford St / High Street to Queens Drive / Cornwall Street to access and pass through the Lower Hutt CBD
  - Reduced traffic volumes on Harcourt Werry Rd and High Street as people choose to access the CBD from the east (Waterloo / Knights Road) due to reduced accessibility along Rutherford Street and High Street
  - Increased traffic volumes on SH2 and Woburn Road as traffic avoids the central City due to increase congestion
  - Increases in travel times of between 5 to 15 minutes on key arterials through the CBD
- Modelling is based on assumptions relating to both the phasing / scheduling of works and the extent to which people might change their behaviour to minimize and mitigate impacts
- In this context, the reported model outcomes should be considered as a indicative of a range, with the lower end of the range possible should a high level of behaviour change eventuate
- A monitoring framework has been setup to understand how the network responds to disruption events to refine the response plan for future disruption events

02. Alternative Disruption Scenarios

Alternative disruption scenarios

A number of alternative disruption scenarios are being considered as part of the development of the Disruption Response Plan. Further detail is included in the main report, but in summary these scenarios are:

- **Disruption Scenario 1: July 2026 to Dec 2026** - modelled
- **Disruption Scenario 2: Feb 2027 to May 2027** - similar to #1, Eastern Hutt Rd complete
- **Disruption Scenario 3: Jan 2028 to April 2028** - building on #2, High St / Queens complete
- **Disruption Scenario 4: Mar 2029 to Jun 2029** - building on #3, Queens / Rutherford complete, SH2 left in, left out

Additional modelling of these scenarios has not been undertaken for the following reasons:

- Disruption scenarios 1, 2 and 3 are similar, however Disruption Scenario 1 is considered a ‘worst case’ as some of the key disruptions in this scenario are completed for Scenarios 2 and 3, with no significant new disruptions added for Scenarios 2 and 3
- The key works for Scenario 4 is the Melling interchange left in, left out; the majority of the other works including Rutherford / Queens / high Street intersections are complete by this time, minimising the network impact within Hutt CBD. Modelling of the construction impacts of the left in, left out scenario has been undertaken previously by the Te Awa Kairangi Alliance and confirmed that the network impacts were manageable, and therefore no additional modelling was considered for the purpose of the disruption management plan
- The key conclusions and impacts from the left in, left out modelling are summarised on the next slide

Disruption Scenario 4 – Left in, Left out

Description

- The Melling Link / State Highway 2 intersection will be converted to a priority control intersection with a left-in / left-out arrangement.
- Harbour View Road will be closed with traffic diverted to the State Highway 2/ Tirohanga Road intersection.
- Rutherford Street / Queens Drive and High Street / Queens Drive intersections will open as signalised intersections.
- The State Highway 2 / Dowse roundabout will be upgraded to a dual-lane roundabout for citybound traffic.
- The State Highway 2 / Kennedy Good Bridge intersection will be upgraded to a double right turn on State Highway 2 or an extended right turn bay with single turning lane.
- Block Road and Daly Street are expected to be closed.

Network impacts

- An assessment of travel time impacts of the changes during the AM peak and PM peak was undertaken for 13 short routes within and through Hutt CBD and SH2
- The modelling suggests that the additional travel time resulting from the left in, left out scenario would be less than 2.5 minutes for all routes in the AM peak and PM peak, with the exceptions being as follows:
    - The LILO arrangement resulted in some additional delays (2.5 – 5 minutes) for left turning traffic heading from State Highway 2 to Rutherford Street across the Melling Link during the PM peak.
    - The re-routing of traffic causes some congestion Dowse Interchange roundabout and is forecast to result in some additional delays (2.5 – 5 minutes) between Railway Avenue to State Highway 2 along Hutt Rd during the PM peak

Limitations

- The modelling of Disruption Scenario 4 has to date been undertaken using the previous version of the Hutt AIMSUN model
- Whilst this is not consistent with the work reported for Disruption Scenario 2, other analysis undertaken by the Wellington Transport Analytics Unit that has enabled comparisons to be drawn between the old and new models has not highlighted any material difference sin model performance and therefore the conclusions and indicative network impacts than can be drawn from the assessment of Disruption Scenario 4 above can be considered valid for the purpose of development the sisruption response plan

Appendix B: Disruption Response Action Plan