

# Future Rail

Building a better rail network for the  
Lower North Island



Future Rail is a collection of projects underway to deliver a rail service with fewer speed restrictions and outages, longer trains and more services to allow for growth.

The Future Rail vision has two key areas of work: renewing existing infrastructure and adding capacity to the network. Both areas of work go hand in hand, and both are required for the complete Future Rail vision. Projects have various budgets, timelines and partners carrying out the work.

Improving the network is an ongoing project with currently funded infrastructure work in place until 2026. If funding continues for Future Rail projects, then work could extend through to 2027/2028.

Watch a video about Future Rail [here](#)



# Future Rail



## Building a better rail network for the Lower North Island



## Wellington Metro Upgrade Programme

### Setting a solid foundation for the future of rail

#### Why are infrastructure upgrades needed?

The rail network has been helping people get around the Wellington region for decades now. Although the network is well maintained, some parts of it are wearing out and need to be upgraded with newer technology.

Renewing the existing network infrastructure will ensure services run as smoothly as possible. This work requires replacing and modernising the overhead power system and signals power supply, and improving the track, across the network including inside the four major tunnels.

#### How will this work affect me?

With most of the rail lines being used almost 24 hours a day, 365 days a year, a plan is in place to balance the Metlink train services with being able to make progress on the upgrade work. Some work can only be done when there are no trains on the track, so work is often scheduled for evenings, weekends and public holidays when the patronage is typically lower. If the tracks are closed, Metlink will provide replacement buses to get you to your destination.

For those people who live close to the tracks, we're sorry that it might mean some increased noise and disturbance while this work is taking place. The team will keep the disturbance as minimal as possible.

#### How long will these upgrades take?

Future Rail is split up into many different projects. If funding continues to be approved, then it's likely that significant infrastructure upgrade work would continue until at least 2027/2028.

One of the first significant projects is the new section of track between Trentham and Upper Hutt on the Hutt Valley Line. This project, currently due to be completed in 2021, will allow a higher frequency of trains to run between Wellington and Upper Hutt by removing the bottleneck affect caused by a single track on the section of the network.

#### How will this upgrade work benefit the region?

This infrastructure work, in combination with the North Island Rail Connection Project, will ensure fewer speed restrictions and outages, longer trains and more services on the network to allow for growth.

Adding capacity to the network is not just about providing more vehicles. Double tracking between Trentham and Upper Hutt, improvements to Wellington station approaches and changes at Plimmerton will all contribute to this. Infrastructure upgrades will provide a solid foundation for the rail network to cater to an increased quantity of vehicles with newer-age technology.

## What will this cost and who is paying?

| Wellington Metro Upgrade |   |  |   |  |  |
|--------------------------|---|--|---|--|--|
| Project #                | Project description                                 | Project details/stages   | Key project benefits  | Estimated cost                             | Status   |
| I                        | Remutaka signals upgrade                            | Complete suite of safety and resilience upgrades in Remutaka and Maymorn tunnels with renewal of Upper Hutt to Featherston signalling.   | <ul style="list-style-type: none"> <li>· Safety and resilience improvements between Upper Hutt and Featherston</li> </ul>   | \$0.650m (forecast)<br>(\$94.5m full cost) | Approved Crown Appropriation.<br>Project largely completed, some remaining tasks regarding Upper Hutt to Featherston Signalling renewal.<br>Network changes delivered by KiwiRail  |
| II                       | Traction face renewal                               | Complete renewal of all remaining legacy traction overhead line assets (poles, overhead lines etc) in Wellington Electrified Area, plus completion of signals power supply renewal.<br>Key areas are Hutt Line, Wellington Station and part of Johnsonville Line.  | <ul style="list-style-type: none"> <li>· Reduced safety risks</li> <li>· Reduced social and economic impacts of failures</li> <li>· Minimise political and reputational risk</li> </ul>   | FY18 – FY21<br>\$98.4m                     | Approved Crown Appropriation.<br>Works under way and well advanced.<br>Network changes delivered by KiwiRail   |
| III                      | Track and civil infrastructure catch-up renewals    | Package of catch-up renewals on track infrastructure including: <ul style="list-style-type: none"> <li>· Wairarapa line permanent way (track and sub structure) refurbishment</li> <li>· Major tunnel (Remutaka and Tawa Tunnel) permanent way renewal</li> <li>· Slope stability risk reduction</li> <li>· Eliminate remaining timber bridge structural elements</li> </ul>   | <ul style="list-style-type: none"> <li>· Maintain regional connectivity</li> <li>· Maintain and improve service quality</li> <li>· Improved whole-of-life cost of network infrastructure</li> <li>· Support regional growth</li> <li>· Improved safety</li> </ul> | FY19 – FY26<br>\$95.8m                     | Redirected Crown FY19 business case.<br>Approved NLTF Transitional Rail funding (Waka Kotahi) in Nov 18<br>Implementation from FY20<br>If cashflow allows, planning for accelerated delivery, ending FY24 or earlier.<br>Network changes delivered by KiwiRail |
| IV                       | Unlocking network capacity and improving resilience | Integrated package of network improvements to enable increased network capacity and frequency, along with resilience. <ul style="list-style-type: none"> <li>· Trentham – Upper Hutt (T2UH) double tracking</li> <li>· Porirua Area Capacity Enhancement (PACE)</li> <li>· Additional traction sub stations to allow longer trains (subject to funding application)</li> </ul> | <ul style="list-style-type: none"> <li>· Improved service quality</li> <li>· Keep up with demand</li> <li>· Better use of transport assets</li> <li>· More resilient transport network</li> </ul>   | \$97.7m (plus \$3.0 further GW funding)    | Redirected Crown FY19 business case.<br>Approved NLTF Transitional Rail funding (Waka Kotahi) in Nov 18<br>Implementation from FY20<br>Completion likely early 2023<br>Network changes delivered by KiwiRail   |

| Wellington              |  |   |  |  |  |
|-------------------------|--|---|--|--|--|
| Metro Upgrade Project # | Project description  | Project details/stages  | Key project benefits   | Estimated cost                                   | Status   |
| V                       | Automatic Train Protection (ETCS)                                    | Renewal of the signalling system, enable increased network capacity and safety.   | <ul style="list-style-type: none"> <li>Improved service quality</li> <li>Enable increased network capacity</li> <li>Improved level of safety</li> </ul>                                | From FY22 and complete FY27/ FY31<br><br>>\$250m | Business case in early development<br><br>Signals study taking ETCS into consideration.<br><br>Network changes delivered by KiwiRail   |
| VI a)                   | Wellington Station approaches capacity and safety enhancements       | Wellington Station approaches capacity and safety enhancements  | <ul style="list-style-type: none"> <li>Improve safety and enable increased service frequency</li> </ul>  | \$70 million                                     | Minister of Transport announced on 29 January 2020, as part of NZ Infrastructure Upgrade Programme<br><br>Network changes delivered by KiwiRail  |
| VI b)                   | Regional infrastructure enhancements                                 | <p>Increased services infrastructure required to deliver increased service frequency proposed in Longer Distance Rolling Stock Business Case.</p> <ol style="list-style-type: none"> <li>1. New passing loops at Maymorn and Carterton</li> <li>2. Second platform/passing loop at Featherston</li> <li>3. Install signalling Featherston to Masterton</li> <li>4. Stabling yards at Masterton, Levin and Wellington are</li> </ol> | <ul style="list-style-type: none"> <li>Enable enhanced regional connectivity</li> <li>Enable improved rail service quality</li> <li>Enable more resilient transport network</li> </ul> | \$126 million                                    | Minister of Transport announced on 29 January 2020, as part of NZ Infrastructure Upgrade Programme.<br><br>Be installed ready for planned arrival of new trains 2025/26<br><br>Allocated as a project for RMA fast tracking<br><br>Network changes delivered by KiwiRail |
|                         | Ngauranga Seawall  | Replace railway seawall that has reached the end of its life as part of NZTA cycle pathway project.   | <ul style="list-style-type: none"> <li>Maintain regional connectivity (sea level rise)</li> <li>Maintain and improve service quality</li> </ul>  | Consent sought 2021/22, Construction TBC         | Largely a cycleway project managed by NZTA   |
|                         | Melling Station Relocation   | RiverLink requires the relocation of Melling Station, to enable the Melling SH2 Interchange, and river protection works.  | <ul style="list-style-type: none"> <li>Enable Riverlink</li> </ul>   | TBC  | Part of Riverlink Project. Currently in design stage.  |
|                         | North Island Rail Integrated Mobility (North Island Rail Connection) | Undertake investigations, detailed business case, and continue to undertake full procurement of the new regional trains while funding is obtained.  | <ul style="list-style-type: none"> <li>Enhanced regional connectivity</li> <li>Improved rail service quality</li> <li>More resilient transport network</li> </ul>                      | \$5m   | Approved NLTF Transitional Rail funding (Waka Kotahi)  |