

Recovery Q&A

Early projections for construction workforce for recovery efforts in areas affected by the 2023 North Island Weather Events

Te Waihanga (the New Zealand Infrastructure Commission), the Construction Sector Accord, and Waihanga Ara Rau (the Workforce Development Council for Construction and Infrastructure) are working to provide an overview of the projected construction workforce needed for recovery.

By giving decision-makers an early understanding of the possible labour demands, these projections will support affected regions in their planning and coordination. This is important given the large scale of the recovery effort across multiple regions, and the potential need to draw on national capability and resources.

Developing a skilled workforce takes time. These early workforce projections will change but having a view now will help inform organisations and businesses to develop or support the development of the workforce and services to support the recovery.

What regions are included?

Affected regions included in the first phase of the modelling project that Te Waihanga is undertaking are: Northland, Auckland, Thames-Coromandel and Waikato, Tairāwhiti, and Hawke's Bay.

Waihanga Ara Rau is undertaking residential modelling for the Auckland, Tairāwhiti and Hawke's Bay regions.

What are the construction workforce projections based on?

The construction workforce projections are based on:

- **Recovery projects and prospective recovery projects:** These projects relate to the 2023 North Island Weather Events (NIWE) including the Auckland Anniversary Weekend flooding and Cyclone Gabrielle. Most of these projects are in their early planning stages with limited detail.
- **Projects in the National Infrastructure Pipeline (the Pipeline):** The Pipeline provides a forward view of planned infrastructure projects that generally have a high degree of certainty.
- **Projects in local council long-term plans (LTPs):** Where there are known gaps in the baseline for NIWE affected regions an attempt has been made to include information from council long-term plans. While some of this information may be out of date it provides additional information of planned and existing construction activity.
- **Residential construction project data:** The Waihanga Ara Rau Workforce Information Platform (wip.org.nz) maintains a monthly dataset reflecting construction and infrastructure intentions. This information is used to provide a business-as-usual baseline for workforce activity.

How can construction workforce projections be used?

By showing projected workforce demand and updating this as planning occurs and prioritisation and funding decisions are made, the recovery workforce information will support coordination efforts amongst our infrastructure providers and related sectors. It will also allow for strategic prioritisation and project scheduling.

Projected workforce needs will also support the construction sector to plan and invest in the capability necessary to deliver the projects that comprise the recovery.

The workforce model transforms project information received and compiled by Te Waihanga into workforce estimates. The estimates for each project are driven by three key pieces of information: project cost, project dates and project type. The workforce projections are based on conventional modelling methodologies and assume, for example, on-site construction. Using these insights, however, affected regions may choose to address potential workforce issues in innovative ways. For example, there may be opportunities for off-site production of some components or for affected regions to work together when considering procurement and how construction activities are staged.

Are there any limitations to the workforce projections?

The workforce projections should principally be used for high-level insights into workforce requirements and timing.

Much of the project information is still in the early planning stages, and many decisions on prioritisation, funding, and coordination are yet to be made. One certainty is that the information will change, and the workforce projections will change as planning processes get underway.

Given the assumptions used within the modelling, caution should be used when looking at modelling at a more granular level (for example, individual occupations) or for projects that are unusual.

The workforce projections are a tool to help support coordination between those making decisions on prioritisation and timing of projects (that will require a workforce) and those investing in delivery capability and developing the workforce.

Do the workforce projections identify market capacity issues?

The workforce projections reflect what potential needs may be – they do not create the workforce. Due to the scale of the recovery effort, it is likely that market capacity will constrain how fast work can be done. These constraints will need to be accommodated within the planning and scheduling of projects that in turn will update the workforce projections to better reflect reality.

How will the workforce projections be made available?

Te Waihangā has developed an online tool to share the projected construction workforce needed to deliver the early indications received for potential recovery projects, such as the repair or replacement of damaged public assets including roading, water and energy infrastructure and more. These workforce projections stretch out over the next several years and are broken down by types of occupations, such as planners, engineers, trades workers, machinery operators, and labourers.

Waihangā Ara Rau has enhanced their Workforce Information Platform to provide recovery workforce projections for the residential construction sector.

How will changes in the workforce projections be reflected over time?

Projections are based on information provided to Te Waihangā and Waihangā Ara Rau on anticipated recovery projects. This information continues to develop and evolve as planning processes progress. As new information becomes available about recovery projects the workforce projections will be updated.

How will this work be used in the future?

The workforce projections modelling will be used to enhance both the National Infrastructure Pipeline (the Pipeline) and the Workforce Information Platform and will increase our understanding of market capacity. This information will help to inform organisations of opportunities and challenges in the construction market. The responses to these signals will ultimately help to smooth the forward construction demand in project pipeline, which will help to improve the efficiency of delivering construction and infrastructure projects in New Zealand.

Having established this capability, New Zealand will be better placed in the future to respond to events that adversely impact our homes and the infrastructure assets and services that we rely on.

Where can I learn more?

National Infrastructure Pipeline

The Pipeline continues to evolve towards its goal to provide a complete picture of planned infrastructure activity in New Zealand, including recovery efforts. This understanding helps to improve the coordination of New Zealand's infrastructure landscape across our regions, sectors, and within our construction markets.

Contact the Pipeline team on pipeline@tewaihang.govt.nz if you'd like to find out how your projects can be included. Learn more: <https://tewaihang.govt.nz/the-pipeline>

Workforce Information Platform

The Workforce Information Platform (WIP) presents a range of different analyses pulled from across the construction and infrastructure industry that explore the supply of and demand for people across the industry. The aim of the WIP is to deliver a forecasting tool that displays National and Regional gaps and surpluses within the construction and infrastructure labour market, as well as presenting information on businesses, the workforce and training.

Learn more: <https://wip.org.nz/>