



ADVICE TO THE TERTIARY EDUCATION COMMISSION

for construction and infrastructure
training investment in 2026

November 2024



WAIHANGA ARA RAU

Construction and
Infrastructure

Workforce Development Council

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SECTION A – CONTEXT

Construction and Infrastructure data snapshot

Construction	254,669 Workforce 2022	75,496 Businesses 2022	70,530 Learners 2022
Infrastructure	63,113 Workforce 2022	6,006 Businesses 2022	7,455 Learners 2022
C&I Services	46,597 Workforce 2022	12,571 Businesses 2022	5,070 Learners 2022

Evidence supporting our investment advice

Construction Strategic Sectors:

Access Trades

Electrotechnology

Finishing Trades

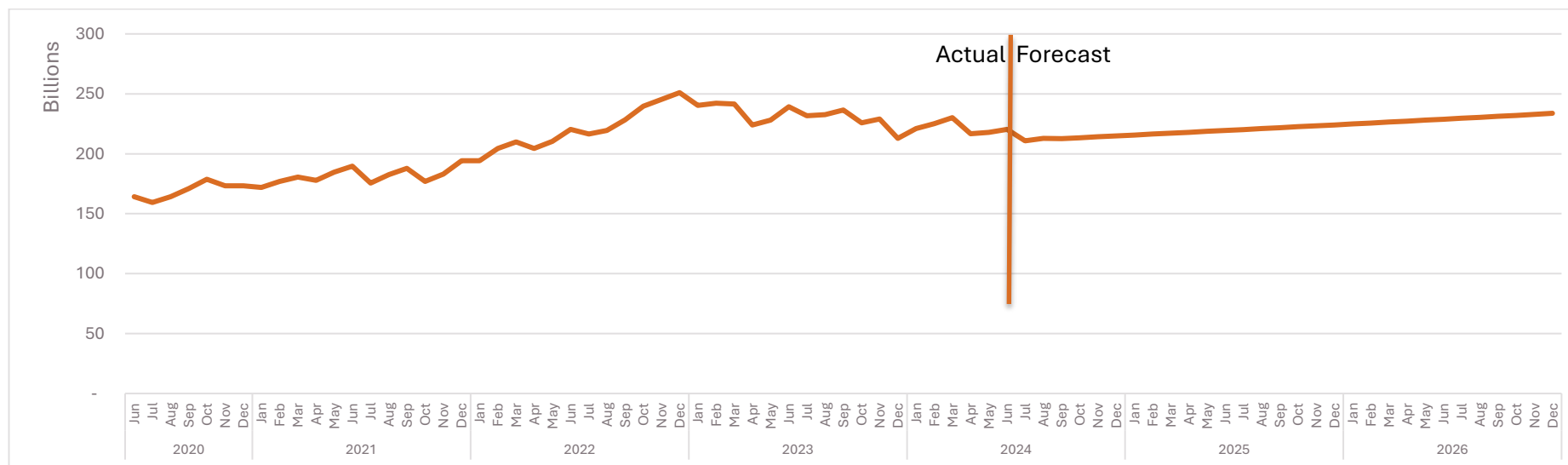
Offsite Construction

Onsite Construction

Plumbing, Gasfitting
and Drainlaying (PGD)

Construction has always been the dominant feature of building activity in New Zealand over and above infrastructure, with residential construction on its own consistently representing 50% or more of overall activity nationally. Currently, the construction pipeline appears relatively stable following a drop in 2023 from 2022 levels, and as a result, **we expect to see workforce demand remaining relatively stable across both residential and non-residential construction over 2024/25**. We expect **that trend to continue in 2026**, picking up more of a positive trajectory in response to improved conditions around inflation and interest rates impacting on residential building in particular.

Construction five-year rolling project pipeline value nationally (2020–2026)

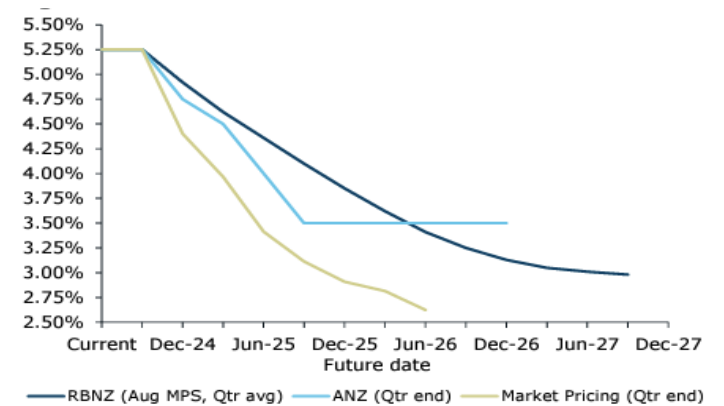


Source: Actual pipeline data is sourced from Waihangā Ara Rau [Workforce Information Platform](#) forecast is linear forecast to a midyear 2023 result in Dec 2026

Forecast of continued reduction in the Official Cash Rate (Current – 2027) | Source: ANZ Research Dara Wrap 16 August 2024

The [ANZ forecasts \(16 August 2024\)](#) make the case that monetary policy has indeed already gained sufficient traction to return inflation to target, and they are now expecting Official Cash Rate (OCR) cuts at each meeting to take the OCR to a terminal rate of 3.5% in Quarter 3 2025.

The [NZIER Quarterly Predictions, September 2024](#) comments on households fixing for shorter periods in anticipation of lower mortgage rates. Expectations of an imminent decline in interest rates saw a marked shift in the fixing of mortgage rates at the shorter end, with 48 percent of mortgages in New Zealand fixed at six months or shorter in June 2024. This is a step up from the 38 percent of mortgages due for repricing within the coming six months. The more recent decline in interest rates means that many households should face lower mortgage repayments as they roll off their fixed-term mortgage rates over the coming year.

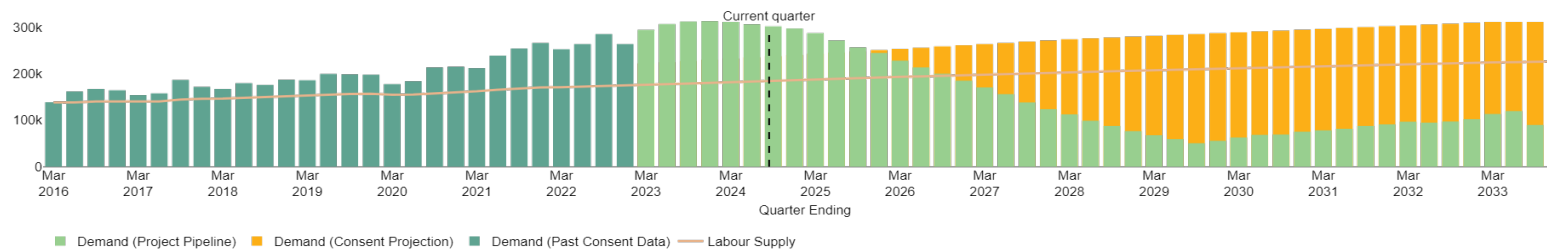


How the current (September 2024) project profile translates to workforce forecasts.

Workforce forecast base on the unadjusted pipeline of work using planned activity and the workforce required to put it in place



Workforce forecast based on the most likely pipeline of work using planned activity and the workforce required to put it in place



Source for both figures above: Actual pipeline data is sourced from [Waihangara Rau Workforce Information Platform](#)

Infrastructure Strategic Sectors:

Civil Infrastructure	Electrical Supply	Gas Infrastructure	Water Services	C&I Services
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We are expecting to see **consistent growth in workforce demand for infrastructure between now and 2026**. This is **based on increasing infrastructure activity driven by a steady pipeline of infrastructure funding** being signalled from central and local government projects covering hospital rebuilds, roads of national significance and road maintenance etc. Budget 2024, for instance, highlighted the increasing investment in infrastructure, with:

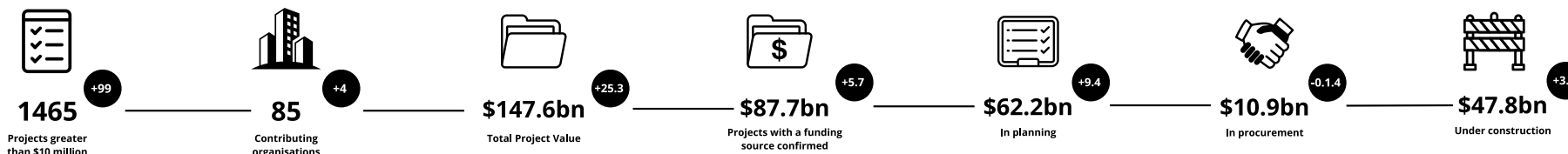


\$4.1 billion of Crown funding for the National Land Transport Fund – a **\$1 billion** increase to the amount previously signalled - to accelerate priority projects, including the Roads of National Significance.



\$1.2 billion for the new Regional Infrastructure Fund to invest in resilience infrastructure and regional projects that support economic growth.

Indication of major infrastructure projects:

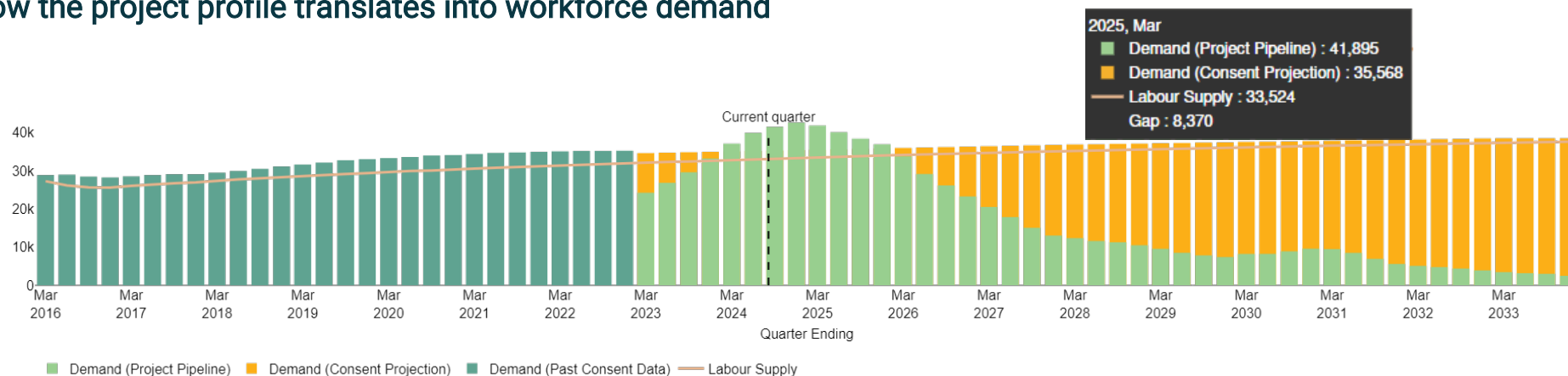


Source: Te Waihanga (NZ Infrastructure Commission)

Key points around infrastructure pipeline certainty:

- ▶ Infrastructure pipeline funding predominantly originates from local and national government; while this can make it less susceptible to economic trends, decision and activation processes can create timing issues in key areas such as transport and water (e.g. work programmes for water remain uncertain until direction is provided on prior administrations reforms).
- ▶ There is an effort to raise certainty levels with long-term windows and phased approaches. For instance, spending on roads of national significance is taking a phased approach, with three tranches of work occurring over a 10-year window. Design and delivery of wave 1 and early planning for wave 2 taking place between 2024 and 2027.
- ▶ There is significant regional variation in the pipeline driven by larger long-term planned projects and shorter-term projects responding to natural disasters, e.g. cyclone and earthquake recovery.

How the project profile translates into workforce demand



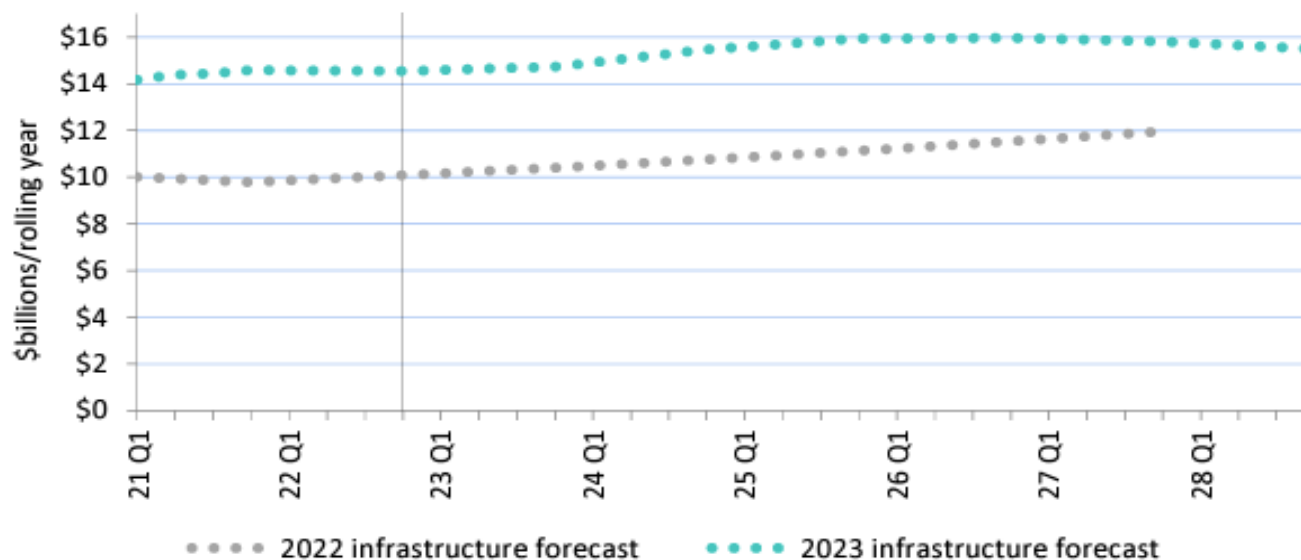
Source: [Waihanga Ara Rau Workforce Information Platform](#)

Infrastructure activity from the National Construction Pipeline Report 2023 forecast (BRANZ/Pacifecon)

Infrastructure activity fell slightly between 2021 and 2022 to \$14.5b but is forecast to increase steadily year on year and reach \$16b in 2026 (an approximate increase of 12%).

Based on this forecast increase in infrastructure activity from the baseline year of 2023 and 2026 forecast year we are allocating a **12% increase in learner numbers** to the qualifications in this sector.

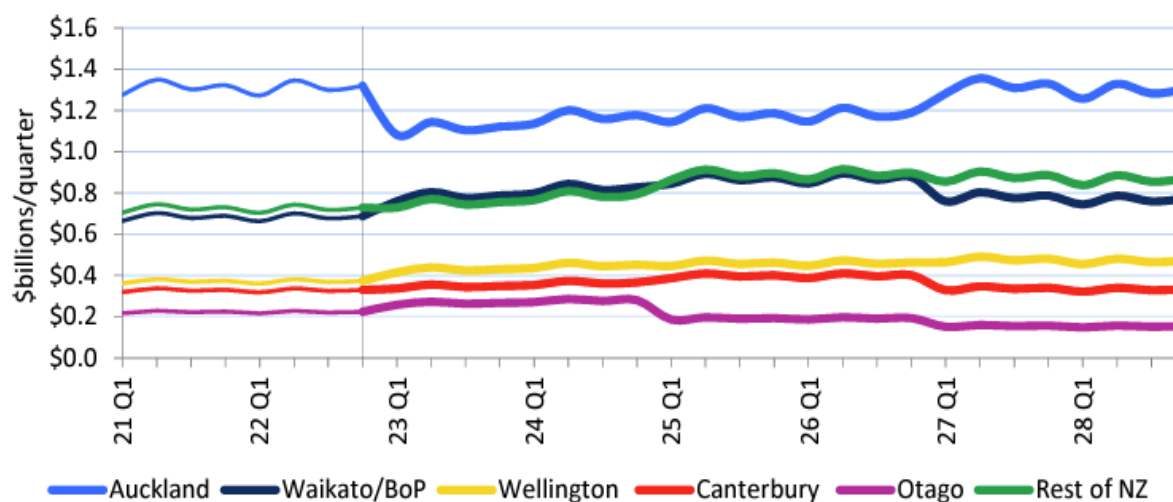
We note that some qualifications in section B1 have low learner numbers therefore resulting in minimal increases in some qualifications. We acknowledge that the distribution of the overall increase of training in the sector might differ at a qualification-specific level from the forecast provided.



Source: [BRANZ/Pacifecon National Construction Pipeline Report](#)

Infrastructure activity regional comparison

Pacifecon’s research data indicates strong intentions throughout the forecast period and overall are expected to be relatively consistent through to 2028. However, regional variations are likely, with activity forecast to decrease 15% in the Auckland region in 2023 before returning to 2022 levels in 2027. The Wellington region and the Rest of New Zealand are expected to show steady growth over the forecast period – 10% and 15% respectively. Infrastructure continues to be driven by transport, water and subdivisions.



Source: [BRANZ/Pacifecon National Construction Pipeline Report](#)

Sector validation of 2026 Investment Advice

Waihangara Rau has Strategic Reference Groups (SRGs) for each industry sector cluster. This advice has been developed in collaboration with and validated by SRGs. The scope and members of each group can be found here:

[Access Trades](#)

[Off Site Construction](#)

[Gas Infrastructure](#)

[Finishing Trades](#)

[Civil Infrastructure](#)

[On Site Construction](#)

[Water Services](#)

[Electrotechnology](#)

[Electricity Supply](#)

[Plumbing Gasfitting & Drainlaying](#)

[Construction & Infrastructure Services](#)

SECTION B – TEC INVESTMENT ADVICE

Specific qualifications and credentials where we want to see investment change

What is our baseline year and the training narrative/forecast?

We are using **2023 learner numbers as our baseline**, as this is the latest full-year training data.

Training interventions such as the Apprenticeship Boost and Fees Free influenced 2021/21 learner numbers significantly, where we saw historical highs for many sectors. The five-year project pipeline of work was also just coming off its all-time high of approximately \$300B total (\$251B construction-specific) in December 2022.

In 2023, learner numbers started to fall which almost a return to 'business as usual' pre-Government interventions. Learner numbers in most industry sectors have continued to fall in 2024, but we anticipate government investment indicators and a falling Official Cash Rate (OCR) will see 2024 as the bottom of the training volume trough in both the civil infrastructure and construction sectors with enrolments building in 2025.

The 2026 projected learners' numbers for construction reflect an expectation that 2024 will see the bottom of the trough and start to rebound in 2025 to be back to 2023 levels in 2026¹.

TEC Advice Threshold

Our threshold for including qualifications in our advice, as advised by TEC, is to focus on qualifications:

- ▶ Where our advice may have a significant impact (i.e. suggestion to increase provision by more than 20 learners)
- ▶ That have replaced older versions, and we have included the 2023 learner numbers in our 2026 forecast
- ▶ That were registered in 2023/24 which had limited or no learner provision, particularly in 2023.

Sector*	Learner# increase on 2023 quals	Learner# increase on new quals since 2023	Decrease on learner numbers	Below TEC threshold	Total
Construction	601 (0.9%)	565	-135	32	1,063 (1.5%)
Infrastructure	539 (11%)	740	-	178	1,457 (21%)
Construction & Infrastructure Services	511 (11%)	-	-	33	544 (11%)
Total	1,661	1,305	-135	243	3,064 (3.8%)

While infrastructure is projected as having a 12% increase on 2023 learner numbers and construction is projected as needing the same level of provision as 2023, there are some qualifiers: The 12% increase for infrastructure applies to current qualifications **only not new ones. Growth from new qualifications therefore pushes up the overall percentage growth for infrastructure past 12% to 21%. While construction remains level relative to 2023 for current qualifications, because Access Trades spans both infrastructure and construction (with one third of its workforce in infrastructure) this causes a 0.9% increase for construction. New qualifications further increase the growth rate to 1.5%.*

¹ Highlighted above in the Construction five-year rolling Project Pipeline value nationally (2020 – 2026)

Access Trades

The Access Trades sector has faced ongoing challenges with ANZSIC and ANZSCO classification codes, which do not accurately represent the sector and its industries. For example, the entire sector is assigned a single ANZSIC code. Consequently, administrative data fails to fully reflect the sector's workforce, businesses, and economic contributions - key information used to determine funding and investment. Waihanga Ara Rau and several industry bodies submitted feedback to Stats NZ during consultation processes on these codes.

In September, the Access Trades Strategic Reference Group provided feedback, highlighting that Access Trades spans both the Construction and Infrastructure sectors, with roughly one-third of its workforce involved in infrastructure. As a result, it was suggested that both construction and infrastructure considerations should be applied to the sector, like C&I Services. Consequently, the infrastructure methodology of a 12% increase has been applied to one-third of the Access Trades 2026 training provision. Below, we outline the qualifications that meet the TEC advice threshold.

Section B1.1 Access Trades TEC Investment Advice Table

NZQA Code	NZQA Qualification Title	Mode	Regions	Scale of Change	Priority
3710 ²	New Zealand Certificate in Scaffolding (Trade) (Level 4)	Work based learning preferred (mixed mode an option)	National	+75	High
2356 ³	New Zealand Certificate in Rigging (Level 4) with optional strands in Construction Rigging, and Telecommunications Rigging			+150	High
2357 ³	New Zealand Certificate in Rigging (Level 5)			+100	High
2360 ³	New Zealand Certificate in Industrial Rope Access (Level 5)			+50	Med
5064	NEW: Tube and Coupler Scaffolding Under Five Metres (Micro-Credential)			+50	High

² **Ref: 3710** Industry engagement and workforce needs suggest that a 23% increase on 2023 numbers would support sector needs. There is also appetite for delivery and learner demand.

³ **Ref: 2356, Ref: 2357** and **Ref: 2360** qualifications have a combination of suppressed data and no registered results in 2023. The Access & Trades sector has however indicated that they have a clear indication that there is learner demand for these qualifications and providers prepared to deliver, leading to the scale of change numbers set out above. Note, however, these are dependent on completion of qualification reviews (Rigging Level 4 under way, Rigging Level 5 and Rope Access level 5 review projects starting early 2025) to address identified barriers to completion.

Electrotechnology

The Electrical Workers Registration Board (EWRB) are set to introduce specialist endorsements aligned to current pathways from September 2024. This move will require more advanced courses to facilitate upskilling workers in the sector to prove competency in these specialist areas to receive the endorsement. The new endorsed classes of registration that will be introduced are mining, medical cardiac protected areas, hazardous areas, mains parallel generation systems, and supervision.

These introductions create an opportunity to review the current pathway for electrical workers and ensure corresponding suitable credentials are in place for areas of demand that are acceptable to the licence requirements. The need for advanced qualifications at Level 5 and above should also tie in with the licensing framework with endorsements aligning with any newly created advanced qualification and/or micro-credentials.

Where there is a degree of confidence that a credential or qualification will be developed because of specialist endorsements, we have included it in section D. Further investigation is required to determine whether additional products may be developed in the future which may include those mentioned above.

Section B1.2 Electrotechnology TEC Investment Advice Table

NZQA Code	NZQA Qualification Title (programme name used if NZQA title is unidentifiable)	Delivery Mode	Regions	Scale of Change	Priority
4316 ⁴	New Zealand Certificate in Electrical Pre-Trade (Level 3) <i>Ref:4316 replaced Ref:2387 which had learners in 2023 see footnote 4</i>	Provider Based	All regions	+100	High
4204 ⁵	New Zealand Certificate in Electrical Trade (Level 4) with strands in General Electrical, and Electricity Supply. <i>Ref:4204 replaced Ref:2388 which had learners in 2023 see footnote 5</i>	Mixed	<i>But consider historical regional learner distribution</i>	See footnote 3	Low
4555	Programme: Grid-connected PV Systems, Design and Install (Micro-credential)	Mixed		+30	Medium
4556	Programme: Grid-connected Battery Storage Systems, Design and Install (Micro-credential)			+30	Medium
5057 ⁶	NEW: New Zealand Certificate in Data Cabling (Level 3)			+200	High

⁴ **Ref: 2387** was active in 2023 (the baseline year) with the last date of assessment being 31 March 2023. The scale of change is an addition of 100 based on learner demand for the replacement qualification Ref:4316. This is over and above the aggregation of 2023 learners for **Ref: 2387 and Ref: 4316**

⁵ **Ref:4204** is mentioned in two places (here and in Electricity Supply). **Ref:4204 is replacing Ref:2388** which had nearly 16,000 learners in 2023. We are not recommending an increase but want to highlight the transition of learners between Ref:2388 and Ref:4204. There will still be learners, at a decreasing level, in the [2388] programme until the end of 2027, and increasing new learners in Ref:4204. Both programmes will still need to be funded at a collective total of approximately 16,000. The last date for entry into programmes leading to Ref:2388 is 31 December 2024. The last date for assessment is 31 December 2027, when it will be discontinued.

⁶ **Ref:5067:** During the development of the qualification, analysis suggested 300-350 new technicians + gradual uptake from the existing workforce of 1,000. 2026 will be the first year of delivery hence the suggested provision.

Finishing Trades

The five qualifications listed in the Investment Table below replaced [0756] National Certificate in Flooring (Level 4) with strands in Carpet Installation, Fine Sand and Finishes, Flooring Planning and Design, Resilient Flooring Installation, Substrate Preparation, Timber Overlay Installation, and Resin Flooring Application.

In 2023, there was a total of 395 learners in qualification 0756. There were also learners registered in the replacement's qualifications 4296, 4297, 4298, and 4300 (none for 4299). In addition to 2023 learner numbers for the replacement qualifications (4296 – 4300), the 2023 learners for 0756 have been distributed based on the programmes learners undertook, 2024 year-to-date learner numbers and historical programme trends. The scale of change figures provided below are indicative, and the re-allocation of 0756 learner numbers (395) should be viewed as a total allocation across the replacement qualifications.

Section B1.3 Finishing Trades Investment Advice Table

NZQA Code	NZQA Qualification Title	Mode	Regions	Scale of Change	Priority
4296 ⁷	New Zealand Certificate in Flooring Installation (Level 4) with strands in Bonded Carpet, Conventional Carpet, Commercial Resilient Flooring, and Residential Resilient Flooring. <i>Ref:4296 part replaced Ref:0756 see footnote 7</i>	WBL Preference	National	+190	Low
4297 ⁷	New Zealand Certificate in Flooring Planning and Design (Level 4) with optional strands in Estimation, and Site Assessment – <i>Ref: 4297 part replaced Ref:0756 see footnote 7</i>			+70	Low
4298 ⁷	New Zealand Certificate in Resin Flooring Application (Level 4) with strands in Trowel Applied Resin Mortar, and Flow Applied Resin Finishes – <i>Ref:4298 part replaced Ref:0756 see footnote 7</i>			+50	Low
4299 ⁷	New Zealand Certificate in Flooring Surface Preparation (Level 4) with strands in Concrete Polishing, Mechanical Preparation, Moisture Treatment, and Underlayment Systems (with optional strand in Topical Coatings) – <i>Ref:4299 part replaced Ref:0756 see footnote 7</i>			+60	Low
4300 ⁷	New Zealand Certificate in Timber and Composite Flooring (Level 4) with strands in Bonded Installation, and Fine Floor Sand and Finishes – <i>Ref:4300 part replaced Ref:0756 see footnote 7</i>			+25	Low

⁷ Qualifications **Ref:4296**, **Ref:4297**, **Re:4298**, **Ref:4299** and **Ref:4300** replaced Ref:0756, learners in the replaced qualification have been distributed across the replacement qualifications. The scale of change reflects this distribution of learners not new learner numbers.

Off-Site Construction

Defining the sector’s workforce presents a challenge due to the overlap of roles across the broader construction industry. A key issue is the inability of government data to differentiate between Off-Site and On-Site work contexts. This problem is further compounded by the lack of detail and comprehensiveness in the occupational codes (ANZSCO) used by Stats NZ, which fail to capture the diverse range of occupations within many sub-sectors, such as Frame and Truss Manufacturing. Stats NZ, have recently [announced their decision to move away from ANZSCO](#), which may help with some of the data issues.

Notably, we have more robust learner data for off-site work compared to industry data, yet the training profile for Off-Site Construction closely mirrors that of On-Site Construction. This similarity gives us greater confidence in using construction sector models for forecasting learner needs across these contexts.

It is critical to address the lack of clarity and accountability in data reporting, particularly around learner progress and completions. The absence of accurate, transparent data is a significant barrier to the sector’s progress, making it difficult to evaluate outcomes and identify areas for improvement. The sector acknowledges its role in this issue; however, it is equally important to question whether, in general, sufficient reporting is being provided by TEOs and TEC regarding the delivery of outcomes compared to funding.

Without such data or at least baseline data to know gaps exist, the sector is disadvantaged in assessing whether commitments and the delivery of results were achieved. Clear and reliable data is essential for all stakeholders to ensure accountability and progress.

Section B1.4 Off-Site Construction Investment Advice Table

NZQA Code	NZQA Qualification Title	Mode	Regions	Scale of Change	Priority
4319 ⁸	New Zealand Certificate in Timber Structure Manufacture (Level 3) with strands in Wall Frame Manufacture and Roof Truss Manufacture. <i>Ref:4319 Replaced Ref:1619 see footnote 8</i>	Preference for Work Based Learning	All regions <i>But consider historical regional learner distribution</i>	+40	High
4377 ⁹	New Zealand Diploma in Timber Structure Detailing (Level 5) <i>Ref:4377 Replaced Ref:2085 see footnote 9</i>			+25	Med
5133	NEW: New Zealand Diploma in Joinery Detailing (Level 5)			+25	Med

⁸ **Ref:1619:** was active in 2023 (the baseline year for this forecast) with the last date of assessment being December 2023. The scale of change is based on the aggregation of Ref:1619 and Ref:4319 learners in 2023 as the baseline for Ref:4316 in 2026 and the +40 in the scale of change is in addition to this.

⁹ **Ref:2085:** was active in 2023 (the baseline year for this forecast) with the last date of assessment being December 2025. The scale of change is based on the aggregation of Ref:2085 and Ref:4377 learners in 2023 as the baseline for Ref:4377 in 2026 and the +25 in the scale of change is in addition to this.

On-Site Construction

There is general consensus from sector consultation, that the construction activity will remain stable, with an eventual uptick. However, this increase may occur slightly later than the timelines suggested above, potentially in 2026. The sector has observed from experience that market dips often lead to increased demand for training, especially at the pre-trades level. Therefore, it's essential to maintain a steady pipeline of trainees to ensure the sector is prepared with a sufficient workforce when the market picks up. A number of suggestions were raised:

- ▶ There is a need for increased investment across all programmes that support the transition from secondary to tertiary education, regardless of the specific qualifications or micro-credentials pursued by learners. This approach should focus on the purpose and needs of the learners rather than the qualifications themselves e.g. Trade Academies and Gateway
- ▶ It is important to ensure that apprentices can easily transition between on-job and off-job training, especially in situations where they have been laid off due to business downsizing.
- ▶ Building on the previous point, there is a need to focus on supporting former learners and workers who are partially qualified, helping them complete their training and qualifications. This effort would require targeted support and resources.
- ▶ Decisions regarding support mechanisms for employees and employers, such as the Apprenticeship Boost, should consider the medium- to long-term impacts on the workforce and the sector. This is important as the costs of inaction or delayed investment are likely to increase over time.
- ▶ The sector wants greater choice and flexibility within the broader vocational funding envelope to determine the specific number of learners, especially during the delivery year. We believe that both providers and employers can sustain this growth, but it is crucial that the demand being addressed is driven by industry and sector needs.

[4237] New Zealand Certificate in Construction Trades Supervision (Level 5)

2024 saw qualifications [NZQF 2381: New Zealand Certificate in Construction Related Trades (Supervisor) (Level 4)] and [NZQF 2382: New Zealand Certificate in Construction Related Trades (Main Contract Supervision) (Level 5)] being replaced by [NZQF 4237]. There was also a significant increase in 2024 year-to-date learners compared to 2023 (more than doubling). Several factors have contributed to this situation, with one of the primary ones being the sector's increasing demand for developing more effective supervisors and leaders. This focus has been emphasised in previous rounds of advice.

The impact of this on our advice, is that 2024 actual consumption will be used as the baseline year for [4237] New Zealand Certificate in Construction Trades Supervision (Level 5).

2023 saw an approximate 65% decrease on 2021 and 2022 which were heavily influenced by government support mechanisms (TTAF and Fees Free). However, even with minimal government support, the 2024 year to date saw an increase on 2021 and 2022 numbers (approximately 33%). Consultation with industry has indicated that the demand should remain steady based on 2024 numbers. In addition to this, there is a potential for micro-credentials to come onstream related to this qualification.

Section B1.5 On-Site Construction Investment Advice Table

NZQA Code	NZQA Qualification Title	Mode	Regions	Scale of Change	Priority
4186 ¹⁰	New Zealand Certificate in Concrete (Specialist) (Level 4) with strands in Concrete Sawing and Drilling, Prestressed Concrete, Precast Concrete, Concrete Pump Operation (Line Delivery System), and Concrete Pump Operation (Boom Delivery System) <i>see footnote 10</i>	Preference Work Based Learning		+35	Medium
4188	New Zealand Certificate in Concrete Construction (Commercial and Civil Infrastructure) (Level 4) with optional strands in Premanufactured Elements, and Post-tensioned Concrete			+105	Medium
4189	New Zealand Certificate in Concrete Construction Skills (Level 3) with strands in Formwork, Reinforcing, Placing and Finishing, Specified Concrete Finishes, Concrete Product Manufacture, Concrete Sawing and Drilling, and Precast Concrete Manufacture			+25	Medium
4572	Demolition and Renovation Skills (Micro-credential)	Preference Work Based Learning		+20	Medium
4573	Introductory Exterior Envelope Skills (Micro-credential)			+30	Medium
4574	Introductory Interior Linings and Joinery Skills (Micro-credential)			+20	Medium
4575	On-site Assembly Skills (Micro-credential)			+25	Medium
4842 ¹¹	NEW: Steel Fixing/Reinforcement Installation for Construction and Infrastructure (Entry-Level) (Micro-credential) <i>see footnote 11</i>	Preference WBL		50	Medium
4971 ¹¹	NEW: Trades Essentials (Micro-credential) (Level 2) <i>see footnote 11</i>	On Campus or WBL		200	High
5058 ¹¹	NEW: New Zealand Certificate in Demolition (Level 3) <i>see footnote 11</i>	Preference WBL		40	Medium

¹⁰ **Ref:4186** New Concrete Pumping strands were introduced in February 2024, and we anticipate that on top of the 2023 baseline there will be an additional 30 learners in 2026.

¹¹ **Ref: 4842 Ref:4971** and **Ref:5058** are recently registered credentials where overall there were no or limited numbers of registered learners in 2023. The 2026 scale of change is based on learner numbers identified during the business case and development of each credential / qualification.

Plumbing, Gasfitting and Drainlaying (PGD)

While the overarching project pipeline for construction provides a context for the sector's activity, we have seen a different profile of learner numbers for PGD. While most of the construction sector has seen a decline in learner numbers since December 2022, PGD learner numbers peaked in 2023 and have remained strong in 2024. Based on this profile with the forecast improvement in the construction sector (as noted above), we are forecasting a continued increase in PGD learner numbers through to and including 2026, which will see 2026 reflect 2023 numbers.

Section B1.6 PGD Investment Advice Table

In our 2023 supplementary and in cycle advice, we asked the TEC to give effect to a freeze on funding for the [2660] New Zealand Certificate in Plumbing, Gasfitting and Drainlaying (Level 3) at 2023 levels. Evidence from Nga Kete (4/9/24) indicates that there have been **505 learners for the 2024 year to date**, this equates to an increase of 90 (+21.7%) learners on the 415 full year learner count for 2023. Interim data suggests that to date six delivery sites have exceeded 2023 delivery volumes, three have maintained them and four have reduced them, meaning there are compliant sites masking the true increase at non-compliant sites with two sites increasing delivery by 100% in 2024 over 2023. Please note that data from one provider/site is suppressed for 2023 suggesting the volume of delivery in 2024 already exceeds a 100% increase in learner numbers.

We need TEC to give effect to our previous advice and address provider non-compliance in 2024.

In line with supplementary advice for 2025:

- ▶ Limit providers to one Level 3 programme per provider, or provider delivery site, per year. This would effectively reduce the current cap further and support those providers that are investing in new delivery sites or facilities while freeing up capacity to deliver Level 4 block courses.
- ▶ Providers do not receive TEC funding for any over duration apprentices. Previously this would have been monitored through 'offsets' but this doesn't appear to be a mechanism in the current funding system. The perception therefore is that there are currently no financial incentives for reducing the over duration issue.
- ▶ That TEC specifically monitors over duration and programme completion rates for Plumbing, Gasfitting and Drainlaying programmes to ensure that apprentices are more likely to achieve their programme/s on time through the achievement of a minimum of 75 credits per year.
- ▶ That apprentices are not charged provider fees post their normal duration.

More detailed information is provided for PGD to support the above point. Although, we are currently not proposing any changes for 2026, but ongoing industry consultation may indicate a need for adjustments.

NZQA Code	NZQA Qualification Title	Mode	Region	Scale of change	Priority
2660	New Zealand Certificate in Plumbing, Gasfitting and Drainlaying (Level 3)	Off Job	National	-135 ¹²	High

¹² **Ref:2660** Please note the reduced cap model of one Level 3 programme per provider, or provider delivery site, per year would translate to approximately 280 learners or a reduction of 135 over 2023.

Civil Infrastructure

In June, the Government released the final Government Policy Statement on Land Transport 2024 (comes into effect 1 July 2024), which sets out how funding for land transport will be invested, including \$22Billion into the transport network over the next three years. The GPS reintroduces RONS and introduces the Roads of Regional significance as well as a number of major public transport projects.

This is clear signalling from the government around secure funding for the transport system The Minister for Transport has stated that they expect an increased focus on performance and efficiency, and to that effect, has stated that NZTA is expected to identify how they and all road agencies will:

- ▶ Increase the capability and capacity of the transport sector.
- ▶ Improve asset management practices across the sector.

This is clear signalling from government around secure funding for the transport system that reinforces our infrastructure context set out above pointing to greater certainty for increasing workforce and training needs across the country. If announcements and prioritisation of this work will have an impact on training investment in 2026, we will provide supplementary advice.

Key Insights from the Civil Infrastructure SRG

- ▶ **The sector needs multiple pathways for training** to be delivered so training can meet people where they are so they can learn when they are ready. This has the flow on benefit that people will be optimally placed to enter or transition into the workforce when projects start. This includes on the job, face to face, extramural, gateway or in-school programmes. Their key is more choice in provision for learners and employers.
- ▶ **Upskilling in leadership and management remains a very clear message from the sector.** The sector continues to want to consider how to train its future leaders better. Ringa Hora has leadership qualifications within its ambit. Waihanga Ara Rau can look to consider inclusion of that work within its advice to TEC, however, more consideration would need to be given to tailoring for construction and infrastructure before clear message could be formulated for our sectors etc.
- ▶ **Diversity remains a key issue also,** the Civil SRG has two key aspects, one is around the low numbers of female representation and flagging that the mahi is far from over in improving attraction of women into the workforce and two, that incidentally the sector needs to continue that work as well as around neuro-diverse and disabled communities.
- ▶ **Apprenticeship Boost:** The government recently announced that Civil apprenticeships have been excluded from Apprentice Boost. Given there is signalling around funding for infrastructure projects the sectors view is that excluding the sector from the scheme will make it more difficult to scale up its workforce to meet demand when infrastructure projects begin to come on stream. that reinforces our infrastructure context set out above pointing to greater certainty for increasing workforce and training needs across the country.

Section B1.7 Civil Infrastructure Investment Advice Table

NZQA Code	NZQA Qualification Title	Mode	Regions	Scale of Change	Priority
2522	New Zealand Certificate in Infrastructure Works (Level 2)	Mixed mode but Preference for Work Based Learning <i>However, industry feedback is all options must stay on the table: including On Campus and Extramural</i>	National <i>Consider recent regional learner split as a baseline for regional allocation</i>	+33	Med
2725	New Zealand Certificate in Infrastructure Works (Civil) (Level 4) with strands in Earthworks, Road Construction, and Road Maintenance			+27	Med
3856	New Zealand Certificate in Infrastructure Works (Level 3) with optional strand in Plant Operation			+150	High
4440 ¹³	New Zealand Certificate in Infrastructure Works (Level 3) – Ref:4440 replaced Ref:3856 see footnote 13			100	High
4922 ¹⁴	NEW: Temporary Traffic Management Design (Micro-Credential)			500	High
4923 ¹⁴	NEW: Temporary Traffic Management Risk Assessment (Micro-Credential)			110	High
4924 ¹⁴	NEW: Underground Utility Location (Micro-credential)				

¹³ **Ref:4440** replaced **Ref:3856** The last date for assessment for the replaced qualification is 31 December 2023 however in 2023 there were 385 learners in Ref:3856 and 855 in Ref:4440 equating to 1,240 learners. The scale of change is based on the aggregation of Ref:4440 and Ref:3856 learners in 2023 as the baseline for Ref:4440 in 2026 and the +150 scale of change is in addition to this.

¹⁴ The new delivery for qualification codes **Ref: 4922, 4923 and 4924** is based on development of new micro-credentials in response to changes to the approach around Temporary Traffic Management (TTM). NZTA is working with its construction suppliers to roll out a risk-based approach to TTM at worksites on state highways. This work includes changes to contracts, a new way of training, and monitoring to ensure the new way of working meets both safety and cost efficiency outcomes. For more information see [link](#). These programmes are already being promoted and are either currently offered or soon to be offered by providers.

Electricity Supply

Workforce Data

Work is being undertaken to better model and forecast the Electricity Supply Industry workforce including the development of common role titles and descriptions and how to align roles with the significant forecasting work the sector does including work related to asset development and management. While this work will continue to enhance our forecasting ability, we are confident the current level of investment will be in line with wider infrastructure investment and may well exceed it. Waihanga Ara Rau will provide out of cycle advice updates to the TEC as the modelling work develops.

Qualification Reviews and Impacts

We are about to begin a review of the New Zealand Certificate in Electricity Supply (Traction Line) (Level 4) [Ref: 3988]. At this stage, it is too early to determine what changes may occur or if any new credentials will be introduced as a result. Additionally, the EWRB is implementing changes to registration classes, which will likely impact the relevant qualifications and have implications in areas such as Fault Response and Switching within the Electricity Supply Industry (ESI).

Section B1.8 Electrical Supply Investment Advice Table

NZQA Code	NZQA Qualification Title	Mode	Regions	Scale of Change	Priority
2136	New Zealand Certificate in Electricity Supply (Introductory) (Level 2) with strands in Electrical Works, Telecommunications, and Wind Farm	Mixed mode	All regions <i>But consider historical regional learner distribution</i>	+123	High
2197	New Zealand Certificate in Electricity Supply (Introductory) (Level 2) with strands in Electrical Works, Telecommunications, and Wind Farm			+83	High
2227	New Zealand Certificate in Electricity Supply (Line Mechanic Distribution) (Level 4) with optional strand in Live Low Voltage Lines			+33	Med
3586	New Zealand Certificate in Electricity Supply (Fault Response and Switching) (Level 4) with strands in Fault Response, and Network Switching			+30	High
4204 ¹⁵	New Zealand Certificate in Electrical Trade (Level 4) with strands in General Electrical, and Electricity Supply – Ref:4204 is replaced Ref:2388 see footnote 15			+20	Med
4243	New Zealand Certificate in Electricity Supply (Utility Arboriculture) (Level 3)			+32	Med

¹⁵ **Ref:4204** is included in two advice sections (here and B1.2 Electrotechnology) the General Electrical strand is replacing **Ref:2388 over time** with a significant number of learners but no forecast growth. The scale of change in this table is based on growth in the Electricity Supply strand which had a 2023 baseline of 165 learners, the +20 scale of change is in addition to this.

Section B1.9 Gas Infrastructure Investment Advice Table

NZQA Code	NZQA Qualification Title	Mode	Regions	Scale of Change	Priority
3591	New Zealand Certificate in Reticulated Gas Pipelines (Level 3)	Mixed mode	National (Key regions noted by SRG: Auckland Wellington Waikato Manawatū)	+5	Low
3593 ¹⁶	NEW: Zealand Certificate in Reticulated Gas Pipelines (Level 4) with strands in Metering and Pressure Control, and Polyethylene Pipeline Construction			10	Low
5063 ¹⁷	NEW: Gas CoC Protocol: Foundation Skills for Working on Gas Infrastructure (Micro-Credential)			100	High
5134 ¹⁷	NEW: Gas CoC Protocol: Excavation for Work on Gas Infrastructure (Micro-credential)			10	Low
5135 ¹⁷	NEW: Gas CoC Protocol: Low-capacity Gas Measurement Systems for Gas Infrastructure (Micro-credential)			10	Low
5136 ¹⁷	NEW: Gas CoC Protocol: Safe Practice for Working on Gas Infrastructure (Micro-credential)			10	Low

¹⁶ **Ref:3593** 2026 provision is based on input from industry and key providers, who anticipate a transition rate of at least 25% from the Level 3 (3591) to the Level 4 qualification. In 2023 there were 40 learners in Level 3, leading to the scale of change being 10.

¹⁷ **Ref:5063, Ref 5134, Ref:5135 and Ref:5136** These four micro-credentials were developed to align with the components of the Gas Certificate of Compliance (CoC). The 2026 provision is based on the current number of individuals holding CoC for the relevant components.

Water Services Act - Reform Impacts

Since 2019, the water industry has experienced significant change, including the creation of an independent water services regulator, Taumata Arowai¹⁸. Part of this was to establish an authorisation framework to introduce requirements about what training, skills and/or experience operators of drinking water and wastewater networks should have. This authorisation framework was initially set to be established by 2026.

Government's recent repealing of the Water Services Act 2021¹⁹, highlights that the **authorisation provisions of the Water Services Act (the Act) will extend to individuals involved in work related to drinking water supplies and wastewater networks, including maintenance, repairs, or renewals**. This will have an impact on the current and future sector workforce, including learners.

There is limited data, mainly from councils and local government, to accurately assess workforce needs based on project pipelines for water services. While some Water Service plans are being submitted to the Department of Internal Affairs (DIA), others may not be submitted in time to allow for robust analysis of this information. As a result, the data reported by local councils (and used in forecasting) is likely on the lower end of what is actually needed, which is an important limitation to acknowledge.

Waihangā Ara Rau Water Qualifications Review

Seven Water Services qualifications are now due for review. Waihangā Ara Rau has completed Phase 1 of the review, which gathered insights from the water services sector on seven qualifications and standards to identify what is working, what is not, and what is missing. One key recommendation arising out of Phase 1 is that training support for the operators of smaller community water systems is needed, further information will be provided via out of cycle advice once the needs and timeframes are clear.

As Waihangā Ara Rau work through the next phases and complete the qualification review, we anticipate that there will be significant changes to the water qualifications suite – likely resulting in a suite of credentials heavily aligned to regulatory requirements. Learner numbers will be impacted as we work to align the regulatory framework and credentials framework with demand to be driven by what is specified in regulation.

There are a number of micro-credentials already in development (refer below), any further micro-credentials are likely to be created based on early investigation to allow for the required flexibility in training requirements. This includes considering how we can enable other qualified practitioners, such as plumbers, to be upskilled to work on the water system.

Discovery workshops with Taumata Arowai and industry are being held in November 2024 and February 2025, which may escalate urgency around some credentials, like making something available at Level 3. Recommendations from prior phases, discovery workshops and wider consultation will likely see

¹⁸ Government is proposing to amend the Water Services Act 2021

¹⁹ [Paper-3-Local-Water-Done-Well-stage-3-further-decisions-redacted.pdf \(dia.govt.nz\)](#)

the sector prioritise qualifications and standards in 2026 (or sooner) which may require out-of-cycle investment advice. We anticipate that this will include an increase on the suggested 'scale of change' provided in 2023 advice (for 2025 delivery), as authorisation under the Act is now wider.

Lastly, it's important for the sector that they acknowledge the impact of the reforms on the future of water qualifications. However, front of mind, is that there will likely be increased funding, which will drive infrastructure development, leading to a greater demand for a skilled workforce and, consequently, more learners.

Water Micro-credentials

We are aware that four micro-credentials have been developed by a provider (with support from Waihanga Ara Rau). These are for Applying Risk Management to Drinking Water Supply Management, Applying Risk Management to Wastewater Treatment Management, Pipeline Disinfection for Water Supply Systems and Waste Stabilisation Pond. At this stage, the provider will not be seeking TEC funding to deliver these credentials. If this changes, Waihanga Ara Rau will provide additional advice.

Section B1.10 - Water Services Investment Advice Table

NZQA code	NZQA Qualification Title	Mode	Regions	Scale of Change	Priority
3858	New Zealand Certificate in Infrastructure Works (Pipeline Construction and Maintenance) (Level 4) with strands in Drinking-Water, Stormwater and Wastewater, and Trenchless Technologies	On job, Face to face and/or extramural	National	+82	High
4138	New Zealand Certificate in Drinking-water Treatment (Level 4) with optional strand in Multistage Processes			+46	High
4142	New Zealand Certificate in Wastewater Treatment (Level 4) with optional strand in Multistage Processes			+30	Med

Construction & Infrastructure Services

Construction & Infrastructure Services sits in a unique place within the construction and infrastructure sectors, disciplines within the strategic reference groups scope and associated qualifications span the gambit of professional services. There are also a wide range of qualifications and programmes at degree, and above which are relevant to career and vocational pathways but outside the scope of this advice.

As a result of the industry scope segments of the sectors workforce are impacted by different project drivers which is why both construction and infrastructure forecasts have been included as context to this advice.

In general construction specific activity is quiet in the fourth quarter 2024 but with OCR and mortgage rate changes there is an awakening of the market which has retained much of the intention to build (Project Pipeline Value) but has been impacted by decisions on when to build. With promising signs of activity, we are forecasting construction activity and associated workforce and training demand to come back to 2023 levels during the 2026 calendar year and have forecasted training volumes in line with this.

Infrastructure demand has also dipped post-election, primarily due to a lack of decision-making regarding project prioritisation and activation. However, there is a strong pipeline of work supported by large infrastructure projects (including the roads of national significance) and regional infrastructure funding. The forecast is for a 12% increase in infrastructure project activity between 2023 and 2026 and in light of this we are forecasting infrastructure activity and associated workforce and training demand to come back to 2023 levels during the 2026 calendar year.

We, alongside the sector and other organisations (ConCove), have been exploring the concept of diploma level apprentices (or also commonly referred to as degree-level apprentices). At the core, this is looking at how to address the workforce shortages within the sector which an important aspect, is the ability to ‘speed up delivery’ of qualifications, to deliver the workforce without compromising on the quality.

Section B1.11 Construction & Infrastructure Services Investment Advice Table:

NZQA Code	NZQA Qualification Title	Mode	Regions	Scale of change	Priority
2416	New Zealand Diploma in Architectural Technology (Level 6)	Mixed	All	+145	High
2420	New Zealand Diploma in Construction (Level 6) with strands in Construction Management, and Quantity Surveying			+298	High
2612 ²⁰	New Zealand Diploma in Engineering (Level 6) with strands in Civil Engineering, Electrical Engineering, Electronics Engineering, Mechanical Engineering, and Fire Engineering			+59	High
3030	New Zealand Diploma in Building Surveying (Level 6)			+26	Medium
3179	New Zealand Certificate in Infrastructure Procurement Procedures (Level 6)			+23	Medium
4515	NEW: New Zealand Diploma in Detailing (Structural) (Level 5) with strands in Light Steel Frame, Steel Reinforcing, Structural Steel, and Precast Concrete			+26	Medium

²⁰ Please refer to Section F (thematic section relating to “[Sustainability](#)” for more information around workforce need).

SECTION C – NEW PROVIDERS

C1. Are there qualifications or credentials that you want TEC to consider new providers for?

Qualification	Mode	Specific regions?	Rationale for inclusion (no more than 50 words)	Evidence status (already supplied, attached, available on request)
ACCESS TRADES				
Ref:3730: New Zealand Certificate in Cranes (Level 3) with strands in Cab-Controlled Overhead Crane, Dogman, Load Lifting Rigging Production, Pendant-Controlled Overhead Crane, Self-Erecting Tower Crane, and Truck Loader Crane	Mixed mode	National	The Cranes industry has supported the desire to expand their delivery partners, outside of those currently delivering the qualification.	Evidence is available on request. Provider(s) have received programme approval to deliver the specific qualification and supported by industry.
CIVIL INFRASTRUCTURE				
Ref:4922: Temporary Traffic Management Design (Micro-Credential)	Seeking blended model of training. Industry is seeking hybrid model with blended training that is not just on the job and not just in class. Model that is already largely used in civil sector for training anyway. For employer to be recognised in the training process.	National	There is industry demand for more choice to meet defined employer/company needs in the TTM space. The market is therefore looking for a greater range of choices who can deliver on these needs via these qualifications.	The TMO and STMS warrant system will end on 1 November 2024. TMO and STMS warrants will be replaced by awarding unit standards, or skill standards as they become available. This has the effect of opening up delivery of TTM micros to a wider range of providers without compliance with old CoPTTM. The flow on effect is an increased bandwidth of provision. This coupled with industry appetite means there is axiomatic evidence that there is a case for consideration of new providers for these qualifications.
Ref:4923: Temporary Traffic Management Risk Assessment (Micro-Credential)				
Ref:4924: Underground Utility Location (Micro-credential) – no providers for this qualification at the moment.				

SECTION D – NEW QUALIFICATIONS AND CREDENTIALS

Qualifications or credentials under development that will be available in the next 12-18 months

Area of provision and/or qualification/ credential name	Level	Mode	Type	Availability Date	Description of content
ACCESS TRADES					
1. Tube and Coupler MC	TBD	TBD	Micro-credential	2026	Approved for development. Included in previous advice rounds (2023).
2. Temporary Works Procedural Control	TBD	TBD	TBD	2026	We are currently developing the business case.
3. MC in Exterior Cleaning	3	TBD	Micro-credential	2026	Being developed. Included in previous advice rounds (2023).
4. Cranes Entry MC	TBD	TBD	Micro-credential	2026	Being developed. Included in previous advice rounds (2023).
5. Edge Protection MC	TBD	TBD	Micro-credential	2026	Being developed. Included in previous advice rounds (2023).
6. Power Access Technician credential	TBD	TBD	TBC	2026	Developing the 'idea' with industry. Potentially outside of coverage.
7. Gantry Cranes	TBC	TBC	Micro-credential	2026	The idea is being developed with industry which will include identifying our involvement.
ELECTROTECHNOLOGY					
8. Electrical Supervision	TBC	TBC	TBC	2026	Developing business case.
9. Mains Parallel Generation Systems	TBC	TBC	TBC	2026	Developing business case.
10. Hazardous Areas	TBC	TBC	TBC	2026	Developing business case.
11. NZC in Electrical L5	TBC	TBC	Qualification	2026	Developing business case.
12. Ref:3970 New Zealand Certificate in Telecommunications (Level 4)	4	WBL	Qualification	2026	Qual review scheduled in 2025 to address a current barrier, forecast 100 learners when complete

Area of provision and/or qualification/ credential name	Level	Mode	Type	Availability Date	Description of content
FINISHING TRADES					
13. Floating Floors MC	TBC	TBC	Micro-credential	2025/26	Has been approved for development.
14. Carpet Tiles MC	TBC	TBC	Micro-credential	2025/26	Has been approved for development.
15. Suspended Ceiling Design credential	TBC	TBC	TBC	2026	Currently developing idea further with industry.
16. Internal Wet Area Construction (Tiling)	TBC	TBC	TBC	2026	Currently developing idea further with industry.
17. Introduction to Flooring Installation	Level 3	TBC	Qual	2026	Likely to result from review of training scheme.
18. Flooring Fundamentals	Level 2	TBC	Micro-credential	2026	Likely to result from review of training scheme.
ON SITE CONSTRUCTION					
19. Paving qualification	TBC	TBC	Qualification	2025/26	This has been approved for development. More details will be provided as the project is developed further.
20. Swimming Pools Construction credential	TBC	TBC	TBC	2026	Developing business case.
21. Sustainability MCs	TBC	TBC	Micro-credential	2026	Developing business case. Part of a wider project (Core Construction).
22. Garage Door Installation credential	TBC	TBC	TBC	2026	Idea being developed further.
23. Complex glazing project management	TBC	TBC	Micro-credential	2025/26	New product resulting from review of NZC Glazing (Level 4) [2945-2].
24. Frameless glazing installation	TBC	TBC	Micro-credential	2025/26	New product resulting from review of NZC Glazing (Level 4) [2945-2].
PLUMBING, GASFITTING, DRAINLAYING					
Public Health – Hydraulic Engineering	TBC	TBC	TBC	2026	To provide in-depth knowledge of the science and engineering associated with protecting public health of building occupants, i.e. large commercial, hospitals.

Area of provision and/or qualification/ credential name	Level	Mode	Type	Availability Date	Description of content
CIVIL INFRASTRUCTURE					
25. MC TTM Assist (L3)	TBC	TBC	Micro-credential	2025/26	Approved for development.
26. MC TTM Mobile Supervision	TBC	TBC	Micro-credential	2025/26	Approved for development.
27. MC TTM Advanced Design	TBC	TBC	Micro-credential	2025/26	Approved for development.
28. MC Low risk/Low impact TTM	TBC	TBC	Micro-credential	2025/26	In Development - Temporary Traffic Management.
29. MC TTM Knowledge	TBC	TBC	Micro-credential	2025/26	In Development - Temporary Traffic Management.
GAS INFRASTRUCTURE					
30. 4 x Gas COC MC's <i>(Safety Induction, Safe Working, Low-Capacity Gas Measurement)</i>	3	TBC	Micro-credentials	2025/26	In development as part of a suite of Gas MC's being developed related to the reticulated Gas - Competency Protocol.
31. 14 x Gas COC MC's <i>PE Pipelaying, Construct PE Mains, Construct PE Services, Safety Induction, Construct Steel Maina & Services, Standard Pressure Control, Complex Pressure Control, Network Leakage Response, Replace GMS, Leakage Response GMS, Disconnect or Reconnect a GMS)</i>	3	TBC	Micro-credentials	2025/26	Approved for development as part of a suite of Gas MC's being developed related to the reticulated Gas - Competency Protocol.
CONSTRUCTION & INFRASTRUCTURE SERVICES					
32. Introduction to detailing	5	TBD	Micro-credentials	2026	Stackable into the NZDip Detailing (Structural) L5 [Ref: 4515].
33. Detailing practice	5	TBD	Micro-credentials	2026	Stackable into the NZDip Detailing (Structural) L5 [Ref: 4515].

SECTION E – FUTURE WORKFORCE NEEDS

Area of need or project	Occupations or skills impacted	Timeframe	Who is involved
Changes to Industry/occupation setting and impacts on Immigration system.	All (scaffolding, cranes and rigging may have slightly bigger impacts)	2024 - ongoing	Stats NZ, MBIE (Immigration NZ) are involved in a piece of work where adjustment of industry classifications (ANZSIC) are likely to have flow on effects on immigration operational policy. The work is around making ANZSIC (and later ANSCO) more accurate so INZ can ensure the right skills are coming through the immigration system.
Literacy and numeracy capabilities are falling	All (scaffolding, cranes and rigging may have slightly bigger impacts)	2024 - ongoing	Industry and government agencies. The sector's approach to addressing this issue is still being refined.
<p>Opportunity to expand gas distribution: Increasing momentum around generation of renewable natural gas by converting waste into biomethane.</p> <p>The need for skills grows as plants upgrade to be able to leverage bio-methane alongside current gas sources.</p> <p>There are a significant number of hydrogen projects either complete or under development requiring workforce.</p>	Gas network technicians Specialist gas network technicians	TBC	<p>Industry, Government, Tertiary Providers and Waihangā Ara Rau.</p> <p>Skills needs are increasingly relevant with plants already in operation in Reporoa. However, workforce needs become increasingly more relevant from 2025 onwards with upgrades to natural gas plants in Manawatū.</p>
Off Site Manufacturing	A list of some of the roles that may be impacted: Project Managers, Site Supervisors, Architects and Designers, Engineers, Quality Control, Inspectors, Estimators	2024-2026	<p>Offsite NZ, Hanga-Aro-Rau, industry, and other Government agencies are exploring opportunities to conduct further research into the Offsite Manufacturing (OSM) Sector, particularly how to improve efficiency, reduce waste, and enhance.</p> <p>There is potential for the development of an OSM apprenticeship. The project is still in its infancy; however, it has the potential to accelerate quickly. If this will impact delivery in 2026, we will provide out-of-cycle advice.</p>

Area of need or project	Occupations or skills impacted	Timeframe	Who is involved
Sector specific leadership qualifications that are focussed on direct upskilling workforce into leadership roles. Sector does not want to see increased provision without a clear net increase in these skills.	All sectors affected.	Continuous	Waihanga Ara Rau, Ringa Hora, all tertiary providers, Industry supporting.
Greater emphasis on driver licensing training as a basic skill. Increased investment still required to address supply of training (particularly into hard-to-reach places).	All sectors and occupations affected.	Continuous	Schools, Kura. Waihanga Ara Rau, Industry supporting. Hanga Ara Rau – note that there is a unit standard required in order to be able to deliver this training.
Digital literacy skills training. Upskilling with AR, VR and digital tools.	All sectors and some occupations affected	Continuous	Waihanga Ara Rau, all tertiary providers, Industry supporting.

SECTION F – OTHER

System-level issues with vocational education or other matters related to investment

Overarching themes

The following are thematic topics relevant across all Construction and Infrastructure sectors, covering issues, challenges and opportunities that wrap around our investment advice.

Leadership

The sector consistently advocates for increased investment in leadership qualifications – and in particular, investment that moves the needle on actually growing and keeping them. The lack of leaders limits the growth of the sector. Encouraging competent leadership and management skills within the workforce is seen as a clear enabler. Increasing the pool of leaders means the sector will have greater bandwidth to take on more workers secure in the knowledge that they will be managed safely and productively. Alongside the push to improve leadership skills overall is the importance of giving focus to nurturing the growth of Māori and Pacific leaders within the sector, particularly if improving inclusivity from these communities.

Diversity and Cultural Competency

There is a need for increased cultural competency in training, including consideration of diverse groups and perspectives, especially those of Māori and Pacific learners. This, along with supporting gender and ethnic diversity, as well as neurodiverse and disabled communities within the workforce, is key to improving workplace environments and improving attraction from a broader talent pool.

Active engagement of Māori and Pacific Peoples is seen as essential, encouraging them to apply for positions within organisations and become association members. Historically, these communities tend to remain in entry-level roles, limiting their progression to higher positions. This is why creating meaningful pathways to enable Māori and Pacific Peoples to move beyond entry-level positions and into leadership roles and successful business ownership is noted as crucial.

Gender diversity was also a significant focus, with generally lower rates of female participation across sectors (Civil Infrastructure at 6%, PGD at 2%, and Access Trades at 1%, to name but a few). There are active initiatives to help, such as Girls in Hi-Viz - inspiring and attracting young women to the sector. There are obvious benefits to the inclusion of disabled individuals for both the sector, the wider economy and the individuals themselves through improving access to employment, decreasing underemployment, and utilising the talents of our disabled population.

Workforce challenges and opportunities

The sector is grappling with a range of workforce challenges including skills shortages, attraction and retention of skilled workers, an aging workforce, competition for talent and migrant worker integration. Top of mind right now, however, is the effects of businesses downsizing due to a reduced pipeline of work. This is expected to improve in 12 to 18 months however it is having impacts on everything from attraction and retention, to reduced industry appetite for training.

The sector is looking forward to an increasingly certain pipeline of work as set out in the narrative below, but it also wants to make sure that workforce planning is done wisely so that when there is an uptick in activity, the flow on effects of the current trough has already been mitigated through smarter planning. This includes attraction and retention (covered below) but also includes decent investment in training, strategic use of immigration and good planning around workforce mobility so that current workforce can be re-distributed, as projects come online or in the event of a natural disaster, deployed to where they are needed most.

Attraction and retention

Labour shortages and the ability to attract and retain skilled workers is a common challenge across multiple sectors, significantly impacting productivity and project completeness. To ensure the long-term sustainability of the sector, effective succession planning and knowledge transfer strategies are vital. Leveraging the experience and wisdom of the aging workforce through pathways that allow them to become trainers/mentors ensuring the preservation/transfer of valuable skills.

Progression

There are a range of considerations around career progression including clear career pathways, mentorship programmes, promotion of trades careers and industry engagement with schools that the sector is thinking about. The sector is particularly mindful that developing clear career pathways and mentorship opportunities is vital for attracting and retaining talent, as well as ensuring knowledge transfer within the workforce. Incidental but related is how best to recognise the skills of their experienced workers – this is a crucial issue to iron out given many workers have years of experience that has not been recognised formally.

Training

There is need for specialised training, and an awareness that currently there are limited training options needing more investment in training programmes and more support for internal training systems. There is also a call for multiple pathways for training to be delivered so training can meet people where they are so they can learn when they are ready. This has the flow on benefit that people will be optimally placed to enter or transition into the workforce when projects start. This includes on the job, face to face, extramural, gateway or in-school programmes and trades academy (currently capped). The key is more choice and flexibility.

Emerging technology

There is an eye over the influence of technology on existing roles, such as automated stop-go signals creating efficiencies, which require new skills to operate and maintain. Visibility of technology on the horizon is important to the sector as it changes the kinds of skills needed and consequently how we train for them leading to increased integration of AI, VR and digital tools as these are picked up the sector. Integrating technology into training enhances learning experiences and prepares workers for modern industry demands.

Sustainability

There is momentum around turning towards renewable energy to help meet our growing energy needs as a country and the sector is very aware of this momentum. The implications of increasing reliance on renewable energy as a source of energy is translating into more work which in turn means the sector has to find a way to address the demand. This pipeline is relatively stable as it is often privately funded and therefore presents a consistent pull-on labour and skills demand. Over time that will lead to increasing re-direction of workforce into the development of renewal energy infrastructure. Both Civil Infrastructure/C&I Services industry stakeholders have both provided feedback that is particularly true for skills/qualifications relating to construction management and engineering because they are relevant cross sector and people who have them are more likely to see re-deployment based on changing project demands. In terms of training this points to integration of sustainable practices in training and construction and promotion of green skills. Another connected part of this is climate resilience work in relation to the built environment and mitigating the impacts of climate change which is also a steady workforce presenting yet another draw on workforce supply.

Wellbeing

Workforce wellbeing is a key area of focus for the sector due to the fact that work can be physically and mentally challenging and operates within a boom-bust cycle – with the current cycle being somewhat atypical. Construction experiences one of the highest rates of suicide for any one sector in New Zealand, with evidence suggesting rates of suicide are disproportionately high relative to the size of the workforce. This is a serious concern among employers setting aside the simple productivity benefit that comes with securing the physical and mental wellbeing of your workforce. Employers are always looking for ways to improve the safety, health and wellbeing of their workforce.