

June 2019

**Notes from meeting held Thursday 27 June 2019, at Level 13, 40 Mercer St, Wellington.**

**In attendance:** Nick Hewer-Hewitt (Wellington Water), Jim Graham (Water NZ), Karen Beirne (MOH), Bruce Nesbitt (Kapiti Coast Council), Ian Couling (Opus-WPS), John Clemens (Timaru District Council), Mike Grumball (Connexis, Chair), Rebecca Fox (Connexis), Marty Simpson (Connexis), Nigel Hesford (Connexis), Michele Miller (Connexis, minutes).

**By Skype:** Tom Dyer (Dunedin City Council)

**Apologies:** Hugh Blake-Manson (City Care)

Meeting opened at 9.30 am. Welcome, health, safety & wellbeing.

Introductions.

**Terms of Reference** were accepted.

### **Presentation**

The water treatment industry is critical for public health and safety, environmental protection. The event in Havelock North showed current practices are not sustainable. New regulations are predicted as a result of the Three Waters review.

A qualified workforce is required. According to Infometrics NZ, 3200 people work in Water Supply (both drinking water and wastewater), 989 plant operators. The workforce is ageing.

Roles in water treatment include plant assistant, small system operator, plant operator and supervisor, and drinking water assessor. An additional role identified is wastewater system designer (design, installation, monitoring, and regulation of on-site domestic wastewater systems) included in some Regional Plans. Previous NC Domestic Wastewater Treatment not replaced in 2012 review.

Plant operators at Huntly power station previously able to do water treatment qualification but excluded from drinking water qualification (the water used in boilers is not for drinking). Does the qualification in Boiler operation include water treatment (En Chem)? Suggestion that there are other places that treat water for other purposes e.g. Fonterra.

At 27 June there are 113 trainees enrolled in NZC Water Treatment (Level 4). Most are enrolled in the strand for drinking water multistage processes, and about half as many in the wastewater multistage processes strand. Small numbers in drinking water and wastewater strands. There have been no completions.

Discussion of feedback from survey:

- Employers need more information e.g. outline of programme, expected duration, dates of block courses, how to support trainees. A training resource recently developed for CSAMs may address this gap.
- SimPlant has mostly received great feedback, not “just about changing timers”.
- A key theme of the feedback was lack of course notes or reference material. General agreement that reference material beyond links in the e-learning course is required. Recommend WIOA handbooks (Water Industry Operators Australia) which are written for operators and include trouble-shooting suggestions.

<https://wioa.org.au/publications/practical-guides/>

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- Course material is due to be finished in July and it will be reviewed in 2020 as first trainees finish.

### **2240 NZC Water Treatment (Small System Operator) (Level 3)**

This role is likely to become more important as new regulations for small water systems are put into place. “Every water supplier will need to demonstrate competence.” New regulator is likely to stipulate a certain level of training. Water suppliers will be required to publish information about their performance, including the qualifications of their workforce.

Although there is demand, the cost and organization of training has been a barrier. A 40 credit qualification is too big for the volunteer or part-time operator at a marae, for example.

Recommend:

- Modify qualification to encompass both drinking water and wastewater in strands. Delete “treatment” so that this qualification is about the whole system. Remove sentences in general conditions: “A small scale water supply system for the purposes of supplying drinking-water refers to a supply that will be operating to Section 10 of the DWSNZ (2008) or any subsequent amendments. Water supply can be for a range of purposes.”
- Develop a microcredential tailored for the location and delivered on-site. Perhaps several packages e.g. rainwater, bore water.

### **2241 NZC Water Treatment (Level 3) with strands in Drinking-water and Wastewater**

Originally intended to be a pathway to the level 4 qualifications. Employers unlikely to fund both level 3 and level 4 training. Few plants have assistants now.

Recommend:

- Set this qualification to expire without replacement.

### **2244 NZD Drinking Water Assessor (Level 5)**

When the new drinking water regulator is established, the number of drinking water assessors will need to increase. A team approach with specialists is proposed e.g. science or engineering graduates who train in the theory of water treatment. The role will be solely on drinking water, unlike current health protection officers. Assessors have to be able to challenge the water suppliers where necessary. Need to understand Water Safety Plans, inspections, and risk assessment. The auditing and assessment skills can be learnt separately.

The graduate profile outcomes of the current diploma don’t meet these requirements.

Recommend:

- A new diploma at level 5, 60 - 80 credits to cover theoretical aspects of water treatment.
- Set 2244 to expire.

### **Domestic Wastewater Treatment**

Domestic Wastewater unit standards (25124 – 25129) are being used in Auckland and Bay of Plenty Regions for wastewater system designers. Noel Roberts (Water NZ) is currently developing a best practice guide for on-site wastewater which is intended for use by Regional Councils across New Zealand. The six unit standards need review. They were used in the National Certificate in Domestic Wastewater Treatment (On-site Domestic Wastewater System Design), which was discontinued in December 2018.

Recommend:

- A working group to review the unit standards and begin the process to develop a replacement qualification.

### **2242 NZC Water Treatment (Level 4) with strands in Drinking Water, Wastewater, Drinking water multistage processes, Wastewater multistage processes.**

Strategic purpose statement is still relevant. Discussed “Graduates will work under broad supervision.” GPOs do not need to specify number of processes or volume of water. Operators at plants without chlorination have to go to other plants to meet GPO 2 and 4.

Recommend

- Remove the statement about broad supervision
- Remove numbers and volumes in GPO 6, 7, 9, and 10
- Remove 2241 from Education Pathway
- Add sampling and testing to General Programme Conditions and remove other conditions relating to the Graduate Profile.

### **2245 NZD Water Treatment (Level 5) with strands in Drinking Water and Wastewater**

Confirmed relevance of strategic purpose statement and graduate profile outcomes.

Need to correct third sentence by deleting ‘s’ from skills. Indicative credit values may alter to align with recommendations of the programme review (see below).

Noted an appreciation for Maori values is in one of the assessments although not specified in qualification.

Recommend:

- Remove conditions relating to Graduate Profile (critical report, Water Safety Plans)

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### **Delivery of Diploma programme**

In February the programme was reviewed. A new knowledge-based unit standard was written for wastewater and the number of elective unit standards was reduced.

Connexis plans to launch NZD Water Treatment (Level 5) later this year. There will be three, three day block courses with a provider. These will include theory and site visits. Provider will develop all materials for the block courses, including pre-reading material. With the time-frame, not all resources and assessments will be developed by the time the learners start their first block course in October. Each block course will be evaluated after it is delivered. Connexis is to develop all assessments, which will mostly be done on-job. Re-sits of assessments will be possible.

Dates of block courses and expected duration will be communicated to give employers and trainees time to plan ahead. Trainees need to understand they are Connexis learners. Pastoral care and encouragement will be given by CSAMs through visits between block courses. Connexis is to establish a mechanism for tutorial support or mentors.

Interest in the programme is high and initially about 40 enrolments are expected. This will probably drop to 20 enrolments annually.

Noted risk in raising industry expectations and not being able to deliver to timelines.

### **Review of unit standards**

Most of the Water Industry unit standards are due for review 2021. Connexis propose to split them into theory and practice so that learners can progress through theory more quickly and also upskill in areas that their plant does not operate in. This would be useful for CPD.

### **Update on Review of Vocational Education**

Announcement from Minister of Education has been delayed to late July. It is likely to involve more work-based training rather than more classroom-based training. Industry needs to continue to encourage learners to enrol in programmes and support them as they train.

Meeting closed at 2.15 pm.