

ONLINE LEARNING – THE FUTURE OF TRAINING IN THE WATER INDUSTRY IN QUEENSLAND



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Typically, the water industry consists of a geographically dispersed workforce that includes remote locations, workforce limitations and budget restrictions. This is partly why attracting and retaining staff has become such an issue for many water authorities. There are also public perceptions of the water industry that reflect old fashioned notions of the “Water Board” with its associated negative connotations- unskilled dirty, boring work with little chance of advancement and little prospect of a rewarding career.

Surveys of the water industry carried out during 2007 and 2008 show the problem will only get worse if the industry takes no action to address the root causes.

1.0 ICE WaRM Audit Results

The ICE WaRM Audit, commissioned by COAG and released in 2008 confirmed what many already suspected, that the water industry is experiencing difficulty in filling a growing pool of vacancies. The audit revealed:

- an aging workforce
- the water industry can't compete with more glamorous industries
- a 12% current job-vacancy rate.

Various surveys have confirmed current national job vacancy rates in the water industry of between 8 and 15%.

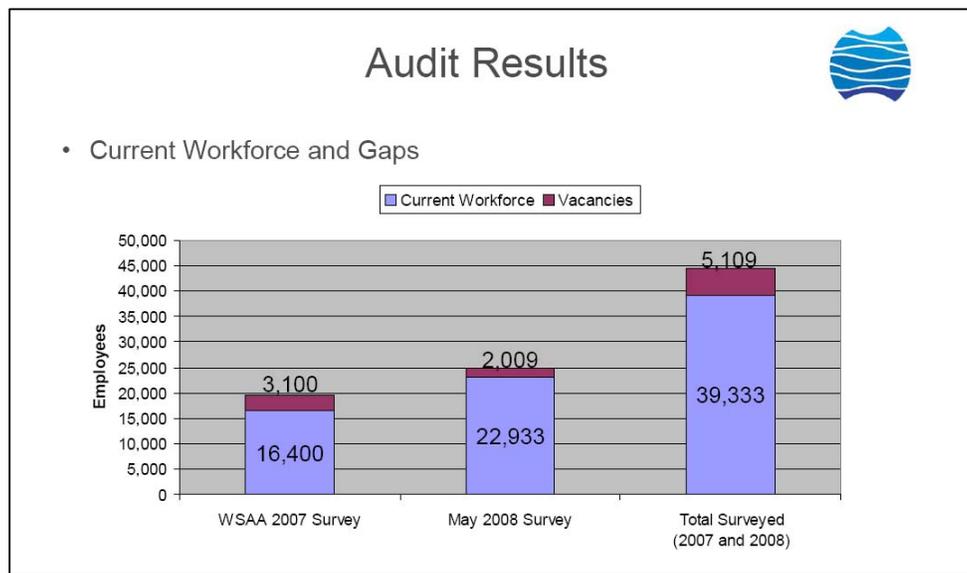


Figure 1: 2007 WSA survey, 2008 ICEWARM survey and combined results

Courtesy of ICEWARM: National Water Skills Audit and Strategy
Consultation and Strategy Development Document

The future for water industry vacancy rates is even grimmer (despite the immediate effects of the current global financial crisis).

Audit Results



- Projected Workforce and Gaps – 2018, additional factors

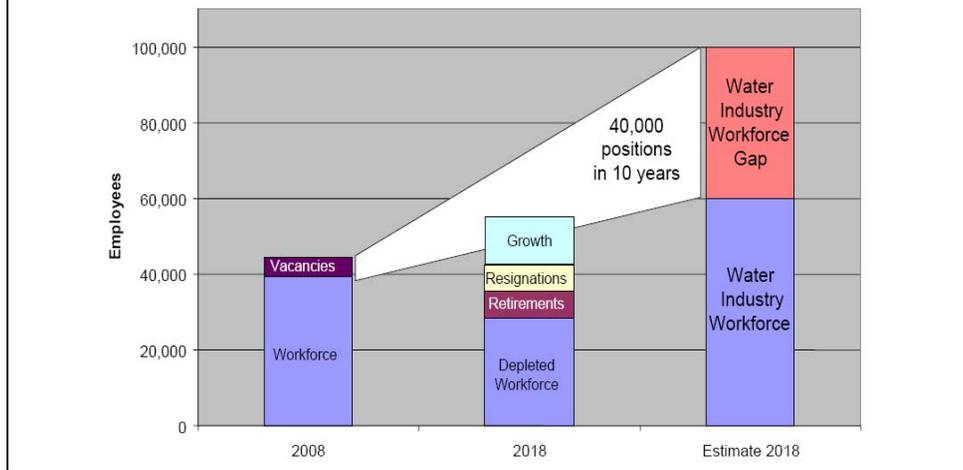


Figure 2: *Projected Vacancy Rate in 2018*

Courtesy of ICEWARM: National Water Skills Audit and Strategy Consultation and Strategy Development Document

Without action, by 2018 the vacancy rate will have ballooned out to 40 percent. To help redress this impending shortage, the water industry needs to come up with strategies that will result in:

- higher staff retention rates
- competitiveness in attracting staff
- appropriately skilled and adaptable staff
- a flexible work environment offering defined career pathways which provide opportunity for advancement
- an accredited qualification structure which facilitates career development and is linked to career pathways

The qualification structure should be a framework of formal, portable and accredited qualifications for water industry workers. The notion that there is *unskilled* work for anyone working in a water utility in the 21st century also needs to be discarded. There are no unskilled tasks in a 21st century water utility.



Vocational Training and Training Delivery Methods

Vocational training is about *proving competence* so a qualification can be awarded. This concept is not widely understood within the water industry and this shows in a recent state-wide survey carried out by the Qld Water Directorate to gauge the Qld water industry's future vacancy rates and requirement for vocation training.

Industry Preferred Delivery Methods

Table 1: *Results of water Utility Survey (Qld Water Directorate)*

	Vocational	Higher Education
Most Preferred	• Workplace Delivery	Part Time (online/distance)
Intermediate	• Workshop Style Delivery • Distance Education	Part Time (classroom)
Least Preferred	• Online/Internet • Classroom Style	Full Time

Table 1 shows the results of the section of the *qldwater* survey on the water industry's preferred training delivery methods.

The benefit of part-time online/distance higher education are easily understood-convenience of working at home in your own time. The responses to vocational education preferred delivery methods are, surprisingly, almost opposite. Online and classroom style are least preferred and "workplace delivery" is the most preferred.

Workshop style *is* classroom training and, in fact, it could be argued that online training is the only feasible "workplace delivery" method because the whole assessment process is based on the student proving his competence in what he actually does.

This confusion stems from industry misperceptions about online training that include:

- Inconsistent quality
- Concerns about required computer literacy
- Isolation from the teacher and other support mechanisms

In fact online learning offers considerable benefits to the water industry:

- No need to travel
- Staff can study at their workplace
- Workplace and technical support from employers
- Slower students *get more attention*
- Encourages computer literacy

Of course not every competency can be taught or proved online but the above certainly applies to the vast majority of water industry competencies.;

Experienced employees may also get credit for "Recognition of Prior Learning" which often means they get their qualification without doing any or some of the course.

The screenshot shows a Moodle LMS interface. At the top, there's a navigation menu with 'groups', 'labs', 'lists', and 'me'. The user is logged in as 'tracie.regan@deta.qld.gov.au'. The main content area is titled 'Wide Bay Institute of TAFE' and contains a welcome message: 'Welcome to The Wide Bay TAFE EdNA group for experienced Water Industry operators! Wide Bay TAFE would like to congratulate you for taking the first steps in seeking Recognition of Prior Learning (RPL). RPL means that your existing knowledge, skills and training can be recognised and taken into account when you study any of our programs. When applying for RPL, you will be required to provide evidence as to how your prior life experiences relate to the required competencies of the Water Industry training package. Once you have had a look around this site, and considered what type of evidence you can start gathering, contact Tracie Regan, Senior Training Consultant, Water Industry Online Team, Wide Bay TAFE to discuss your options.' Below this, there are two yellow boxes: one for 'Tracie's contact details are: email: tracie.regan@deta.qld.gov.au' and another for 'Post your completed Application to: Water Studies RPL'. The right sidebar contains a 'Latest News' section, a 'Calendar' for March 20, and a 'Water Treatment R' section with links to 'Add/Edit Fe', 'Vertical Loop Reactor', 'Biological Treatment', '10 States Standards', 'Berkey water filters', and 'Rayne Quality Water'.

Online learning, or E-Learning as it is sometimes known, is extremely flexible in adapting to the requirements of the workplace: it maintains productivity and builds a culture of shared learning among trainees. The focus of strong Motivational Workplace Learning On line supports good business activity. From a business point of view, more employers are realising e-learning is cost effective, ready-in-time at any time, provides self-paced adult learning strategies and is contextualised to suit their needs.

The Trainers

Industry based trainers have good knowledge on current industry practice which enables them to fully support both students and workplace coaches.

The keys to motivational workplace online learning are simple:

- Support for the Student
- Support for the Workplace
- Support from the Trainer

The Students

From the student's perspective this means course work is linked to practical activities, workplace skills, and workplace duties. In turn, learning in the work place encourages discussion and confirms learning outcomes with other colleagues doing the same course work.

The Water Utility

For the water utility online learning serves to embed workplace procedures, provides flexibility, maintains productivity and builds a culture of sharing and learning.

Motivational e-Coaching

- **e-Coaches know effective learning is also about successful relationships.**



E-coaches know effective learning is about building successful working relationships with their students.

Trainers must maintain up-to-date knowledge of water industry requirements, techniques and procedures. Therefore trainers are usually, but not always, employees of water utilities.

2.0 CONCLUSION

Online training provides an opportunity for water utility staff to receive accredited qualifications which recognise their knowledge and skills in their particular field. They are able to complete assessments for the tasks they do every day in their workplace environment while actually at work.

Online trainees receive support and guidance from trainers who are predominantly employed in the water industry. They have up-to-date knowledge on industry technology, practice and procedures. The trainers are able to spend more time with students who are having difficulty because they are dealing with the students one-on-one.

The water utility benefits by having the trainee remain at their workplace while doing their assessments- no travel and accommodation cost or unnecessary down time.

Everybody wins- but the student is the big winner with an accredited qualification recognised nationwide under the National, NWP07 Water Training Package.