INDUSTRY SKILLS 360 SERIES – WATER WEBINAR

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Panellists:

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Q & A WITH THE PANEL

> 1. *How has COVID-19 affected the Water industry?*

Dave Cameron: Thanks very much Paul, I jotted down a few notes for the first one, the others are a couple of cans of worms, so maybe you'll try to go through this one a bit quickly so there's more time for some of the others. In my experience, so keeping in mind that I'm fairly parochially Queensland-ish and we've got a different sort of business model up here with mostly local governments running water and sewerage services, a bit like New South Wales, our lens on the world might be a little bit different. From our perspective it clearly exposed some vulnerabilities in supply chains and skills where there might actually be operator shortages. So, you've got to turn these kinds of things into benefits and work out what you're going to do about it because we really weren't hit as badly as we potentially could have been. For the larger utilities there's clearly been an economic impact because they've had to implement more hardship policies and there's been a bit of a lag with that obviously with billing generally being a lag. I know a lot of them are experiencing return to work challenges now people are getting used to the virtual environment but I'm sure that's common across most sectors. Publicly we've had an active role in things like sewage monitoring. You would have seen the methodology developed by various Queensland universities and CSIRO and that's all happening with sampling going on at sewage treatment plants. For the broader industry and the way supply is engaged, it's fundamentally changed. So, I know George's business has suffered from this a bit but the old model of big trade displays at annual conferences and those kinds of things

has paused for a bit which has had a massive impact on suppliers and the host of those events. The other positive I guess is we've been trying to promote online opportunities for a long time. Online opportunities, remote monitoring technologies and it's just instantly given all those things a shot in the arm. This morning I've just come off a webinar, we run a fairly simple model where you just get a subject matter expert to talk about a specific task or topic for an hour or so, record it, do a bit of editing and whack it up on the website. So we're accumulating quite an excellent library with an audience that was completely unreceptive to that kind of thing sort of 18 months ago, so there's been some good things as well. Do you want to add George?

George Wall: You've got it pretty well there Dave.

2. *With limited RTOs in Victoria to deliver water resources how will support TAFES, [TAFEs be supported] as Chisolm has removed training.*

Dave Cameron: I can certainly give you an industry view and the types of things that we're trying to grapple, but I can't speak for government. In general, I think the RTOs kind of have it a bit rough in our sector. It's a well acknowledged thin market, you've got a commercial imperative to meet but you've got a limited number of customers and in our case they're quite spread. Delivery is a challenging thing. They all want to be trained on site and on their own gear and all that introduces extra costs. And quite often you might only have one trainee located in a very remote location. So, there's significant challenges, you've got to meet ASQA requirements, you've got to come up with innovative learning materials and all of that is quite a significant kind of undertaking. So, from an industry perspective we get together quite frequently to share good ideas to address those sorts of problems. We've just had a skills forum last week which is focused on a lot of that sort of stuff and that does involve the RTOs, the utilities, various sort of employee representatives and government representatives and there's always good things that come out of that. I guess we've been collectively doing more advocacy nationally to try to ask questions of ASQA about what we can do to improve and free up some of the perceived restrictions around the issues that George raised in his presentation around introducing subject matter experts currently employed in the sector to be more involved in training processes through co-provision models and that kind of stuff. I think that it touches on one of the later questions as well too, that there's also separate investigations around things like introducing mandatory minimum qualifications. But the proviso on something like that is, you know you don't want to shock the system, you don't want something that's then going to attract dodgy brothers RTOs into the

markets. You need to carefully manage the implementation of such things but you've also got to kind of recognize that the more you streamline these things or the more the industry or governments choose to tackle some of the other sector challenges, which includes the way that the sectors spread. So in Queensland for example we've got 370 water supply schemes and 75 plus urban water providers and there's plenty of pundits that would suggest that there needs to be some rationalisation. But if you rationalize that you're also reducing the number of trainees entering the market effectively. Because other states which are just as large and challenged, that might only have one utility or a few utilities, are probably dealing with a fraction of the trainees, so you're thinning an already thin market and then trying to keep it commercially viable. So, it's a multi-faceted problem is what I'd say and good luck to governments, but industry is doing its best to work with them to try to come up with a range of carefully considered solutions.

George Wall: Just on that one Dave, if I can jump on the top as well, you did mention advocacy and the amount of work that we're doing lately and in reality, the IRC is a very, very representative national group. It's probably one of the best-established groups because it does, as I said at the start, it does have people from every state and a whole different range of experience and expertise. And with the sort of things that we're working on, how do we, can we make (we have sorry made an approach to ASQA) so we're still waiting for some response back to[see] where that goes, but we are hoping to have a meeting with them to try and get some clarity around how they perceive that their own guidelines should be read into industry. If it is the fact that we can make it, as Dave said, better co-provision, better ways of getting our skills into training and actually make it easier for the RTOs to do it. We're trying to work on those avenues and they're areas where the IRC hasn't really worked on in the past. I think it's really important when we have got a group like the IRC that we can have a bit of a go at some of these national issues if we really need to and I think I think it's important.

3. *Is there any national strategy to meet minimum training requirement for water and wastewater treatment?*

Dave Cameron: I touched on that briefly in the last response and I think the short answer is no, there's no national attempt to try to set a minimum standard. I'm interpreting the question to mean, should you now regard water operators, or whatever is a trade equivalent type thing, where you require some sort of licensing arrangement or a minimum qualification. We know a lot about this space. We've been dealing with it for a long time, we know that the

answers are mixed as George described in his overview. You've got some very simple systems and some very complex systems and the last thing you want is to have people doing unnecessary training if all they ever need to focus on is something simple. There's heaps of materials out there to determine how a minimum standard might be derived but there's no national coordination for it because water is regulated by each state and territory. In Queensland I know that there are investigations underway to look into this kind of stuff but it's too early to actually draw any assumptions on where it might actually go. We've got very strong views and I guess I have to be a little bit careful about what we say and yes there's certainly an opportunity to stimulate the training supply market if you had something like that. But as I said you've got to be careful. Everyone refers back to pink bats and all that sort of stuff as soon as you implement a regulatory trigger. Without really thinking through implementation, you run into all sorts of issues with externalities.

George Wall: Yep, and just from my side with that one, with my conflict-of-interest hat on as well given that WIOA is the nationally endorsed certifying body by the certification task force, there is currently a voluntary scheme that exists. It started out in Victoria going back to about 2012. I's now a national scheme covering water wastewater and recycled water. As I said it's totally voluntary. There's around about 200 or so operators who've taken up that opportunity to be certified over that period of time. it's in essence a minimum standard it's making sure that operators do actually meet the skills requirement for their individual plants so that they can effectively deliver the services to our community. I'm also aware Dave that New South Wales has got a similar program of investigation underway at the moment and again, without pre-empting anything, they're going to come up with and they're certainly looking at what should minimum standards for our industry look like. And again, if I throw my hat away this time and just say I think it's almost a no-brainer that everybody everywhere should be able to demonstrate that they've had training from our nationally endorsed package for all of the unit processes that they're operating on. I think that the sooner we get there the better from that point of view.

Dave Cameron: There's so much work going on in this space we probably should also mention Water Research Australia and its value of operator competency work. They're looking to enter into phase two of that project. I guess phase one demonstrated, as George suggested, it's a no-brainer. Phase 2 is more focused on what the appropriate regulatory options are to try to introduce, to stimulate and have an appropriate response to that work.

4. *Are small cohorts training viable for RTO and who makes the rules?*

Paul Walsh: ASQA is the skills quality authority for training organizations so it obviously consults broadly with government and other stakeholders. It effectively sets the rules to ensure that there is a quality framework that surrounds the delivery of training through audits and inspections etc. But the thing that you mentioned earlier David about how you've been able to consult with us - we've talked to those things.

They [ASQA] have certainly become, in more recent years, a lot more open to hearing from industry. They certainly consult with us about issues, or an interpretation of assessment requirements and Training Packages and the way Training Packages are written. So, they're certainly quite receptive to talking to industry and to stakeholders and SSOs about how they can attempt to smooth things out without reducing that quality. So hopefully that answers your question.

5. *Operator certification do they exist are they contained in the Training Package?*

Dave Cameron: I'm sure George will want to talk about this one. There are some Skill Sets defined in the Training Package which deal with aspects of certification for simple systems, but at the end of the day the whole program is based on the Training Package. It's a competency mapping approach. It covers drinking water, wastewater and recycled water systems and attempts to actually match every process that you're responsible for at a plant with a Unit of Competency in the Training Package, rather than say is it embedded in the Training Package I think the whole certification program is fundamentally based on the Training Package.

George Wall: There might be some other issues Dave in the way organisations in particular perceive it. Some organisations will get their operators a Certificate III and that's fine, but it contains 11 Units of Competence and three of those are cores and then eight electives. Just the mapping experience that we've had, looking at a number of, even some not big, but complicated treatment plants with a number of processes. We've seen organisations that need maybe 15 or 16 separate Units of Competence from NWP to effectively manage their treatment plant. And the issue then is that if a management view is that we've got a Cert III therefore we're covered, well you may be covered for maybe only eight of the 15 Units of Competency that the operator would need and there's no other driver, you can't get another certificate on top of that. This is part of the discussion around the Skill Set side of things. Can we actually help

organisations to pick up those skills gaps so that we do have operators that cover off the whole gamut of what they're actually operating? But [can we] find a way to get that into the funding models and everything else for various states because they're all different in each state.

Dave Cameron: At the start George mentioned a little bit more about that as well. Is a Cert II or a Cert III still what it should be. The benchmark or the model used for supporting funding where it exists and those kinds of things, when there's becoming a case for more than a qualification. We had a bit of work up here a while ago. We've had two intakes where our State Training Authority generously funded some gap training to get some people through certification beyond the 11 units of competency in a Cert III. It supported 50% funding for up to seven units to be certified, but we've been trying to get a mechanism in place to turn that into an ongoing thing for a while. And we've looked at Skill Sets and they talk about competency clusters and all that kind of stuff. But we're still learning about what are ASQA rules and what are AISC rules and how we can actually get some more flexibility into the package to recognize that a qualification is not really where all of these processes are going. It's more about trying to map something to a job and there's a lot of diversity in the jobs.

> 6. *What is the process for developing a UoC as performance and knowledge can sometimes miss the mark?*

Tricia Fidock: I'll take it. When we review a unit or any project, we employ a group of people, industry experts who are technical advisors and form a Technical Advisory Committee. We might get a small group from that Technical Advisory Committee, remembering with water being so diverse, and we want to cover off everything. We normally would have a sub-TAC that would have the skills specific to whatever the unit's about so if it's a network unit or a water treatment unit or waste unit, we get people in who have those particular skills. They're not always on the technical advisory committee. People who are on the Technical Advisory Committee might say they can get a work member or colleague to do this because they work in that particular area. When we review the unit, we go through the elements and the performance criteria and then we make sure that whatever is in the performance evidence and the knowledge evidence maps to the unit of competence itself. So, if you believe that there's a unit out there or units out there that have issues, let us know because we can't fix them if we don't know about it. We've just reviewed the whole Training Package and each Unit of Competence gets reviewed. Each qualification is out in the public domain for your comment for at least a six-week period, four weeks in the middle of the project and two weeks towards

the end of the project so consultation time is made available to you. If you are not receiving our updates about our product going out to market, you're not hearing about draft units being available, you're not on our mailing list. So do yourself a favour and go to our website and get on our mailing list and you will hear about when units and qualifications are available for public feedback. When we do get that feedback, I then take that back to the committee. I do not decide whether it's relevant or not, your technical committee does, so that's the process. I hope I have explained it okay.

George Wall: And just from my side Trish as well, as a rep on some of the TACs (I will not say which ones), so people can't punch me behind the ear if they're wrong, but the process in the past was probably - let's do a brain dump of everything we think we know about this particular issue. And that all ended up in the bottom end and again we are well aware that RTOs had real problems trying to match up how all of that could be demonstrated through the course of the unit. And being a rep on TACs, particularly with Trish as our leader, she was ruthless in making sure that we knew exactly how it all tied together. That we didn't have anything in there that was not referred to in the PC and the elements that got into the knowledge, and the skills and the assessment requirements. I think the other side of it is, and again I do know that lots of TAC members are on the webinar today, that we did go back to other competencies that people really, really need to be able to demonstrate they have done this job. We took a lot of information that was probably driving people to have to do a whole range of different things to demonstrate competence, to saying well hang on this is what you need to know and if you want to know the context for that go and have a look at the companion volumes. A lot of that information got moved up to there, so I hope that the question might be still referring to the previous version of NWP rather than the current one. But as Trish just said, and we're all over it, if there are comments, we need to know about them and we'll do it - we'll fix them, it's as easy as that.

Tricia Fidock: Absolutely.

> 7. *What would be the savings to the Water industry for units with cameras and microphones for maintenance?*

Dave Cameron: I think the short answer is I've got no idea, but I'd be really interested to work it out. Perhaps more importantly, I mean the reason that things like CCTV are on the agenda, is that whether something becomes a unit in the Training Package is sort of part of the whole product life cycle thing. Someone introduces a proprietary technology, and it gradually gets taken up

and then sort of genericized, and then becomes common practice. CCTV has been underway for a really long time in a lot of utilities now and it's at that point where we kind of need to nut it out because it's business as usual for many. There are heaps of things that are on the cusp you know and constantly talked about at the IRC. And if you want to look at the extension of CCTV, I'm constantly getting approached by suppliers with interest in artificial intelligence who do a lot of the automation around the interpretation of CCTV results. So maybe in a few years we'll be talking about units on how you actually drive that software rather than the visual inspection type thing, so I don't know the answer to the question.

8. *Is there any plans to developing a restricted licensing to work on government works*

Dave Cameron: Yeah, on you Brad. I'd like to acknowledge Bradley. He's always stuck his hand up for every one of the network TACs and does a fantastic job and is very experienced and has great input. He's picked a really specific issue there, for something that I probably need to follow up with, because we've been having discussions with our State Department of Housing and Public Works over this issue. It is a kind of national issue because the excuse that we're being used for not being able to get any traction on the restricted license is the sort of national plumbing laws. No one wants to weaken the profession or weaken the trade at the moment so we're not actually getting very far, but to me it's a no-brainer. There are people who work for utilities and work around that point of connection between the sewage infrastructure on a property and then what the utility owns. And you're at risk of breaching current licensing requirements just for doing something simple like wanting to poke a camera down a hole on a resident's property or clearing a block as Bradley suggests, so I'm going to follow up on that one with you Brad.

9. Is the *water infrastructure being replaced at an appropriate pace*?

Dave Cameron: Yeah, another can of worms. We've got a couple of reports that are available on our website which focus on buried infrastructure, so it's a well-known issue. There's terminology floating around like infrastructure cliffs and most of the debate is around at what point are we going to hit that. And I think the general summation is it's maybe not going to be so much of a cliff but a gradual thing with increased scope and renewal programs and all that kind of thing over time. There's lots of things that impact pipes and how well they last, so soil types and w materials and things. AC pipe asbestos cement pipe is one

of the big ones for the industry because you've got all these extra costs in ripping it out and disposing of it. But it's also something which doesn't stand up very well over time in certain conditions. We also have members who just say to us we're ripping stuff out of the ground that looks the same as the day it went in, even though it might have been done 40 years ago or whatever. So, lots of variation in it in terms of the question - the paper from memory said that for Queensland's example we added up all of the work money that was going into renewal of pipework's and then applied that to what we knew about the assets. It was going to take 170 years to replace all the assets at the current investment rate which suggests pretty obviously that there's a bit of an underspend there. Then you've got all those other questions like is the asset appropriate in the first place? Are we meeting the minimum sort of standards? So, I think my short version after that ramble is there could always be money spent on infrastructure but there's lots of debates around whether the way we service customers at the moment will change. Someone might come up with a magic way of delivering the services and it's very hard to make decisions about assets that you want to last for a hundred years without knowing where technology might go. We talked about CCTV, lots of advances and realigning technologies and all that kind of stuff as well.

George Wall: Yeah, I was always going to mention the realigning stuff, Dave. In terms of the package what tends to happen with a lot of these technologies is that they're proprietary or contractor owned. They generally look after the operation of those sorts of works, but then at some point in the future, a bit like some of the vacuum trailers and things like that, it goes out of that contractor space into normal, business as usual, water utility world. It's probably at that time that we start to get a bit more engaged and involved - in well, okay if their water industry people doing this and it's now no longer a proprietary company that's doing it, how do we fit that training into the package? I'd probably suggest a lot of the recent changes have come about because of those sorts of issues. We've had new gear that may be becoming mainstream for our industry and we're looking at picking it up.