



SUBMISSION: PGDB Review of Registration and Licensing (public consultation)

Date: 28/05/2015
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A handwritten signature in black ink, appearing to read "Andrew Curtis", is written over a faint circular stamp.

(Andrew Curtis, CEO IrrigationNZ)

INZ would be happy to discuss the points raised in this submission

OVERVIEW

1. IrrigationNZ (INZ) is a national body that promotes excellence in irrigation. INZ represents the interests of over 3,600 irrigators (irrigation schemes and individual irrigators) totaling over 360,000ha of irrigation (approximately 60% of NZ's irrigated area). It also represents the interests of the majority of irrigation service providers (over 150 researchers, suppliers, designers, installers and consultants).
2. INZ has a strong membership base with irrigation service companies designing and installing irrigation systems on-farm. Over the past 10 years, in partnership with the irrigation industry, INZ has developed nationally recognized codes of practice and standards for design and installation of irrigation systems, including backflow prevention. These provide minimum quality of service expectations for the industry and more importantly a best practice design and installation process. The codes and standards also underpin our training and accreditation programs.
3. INZ (through Primary ITO) has developed and delivers an NZQA level 5 certificate in Irrigation System Design. We also have an irrigation design accreditation program in place www.irrigationaccreditation.co.nz. This involves rigorous requirements to be met for companies to become, and maintain, accredited status. Both are currently in their infancy but have been accepted by industry as the new norm.

4. The design and installation of irrigation systems is very different to plumbing, involving complex pumping and hydraulic design. The majority of plumbers do not typically have this specific skill set.
5. Due to the current uncertainty with the Plumbers Act INZ sought a legal opinion to give clarity to the 'grey areas' discussed below and thus better inform its membership. This can be provided if required.

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6. The main concern INZ has with the Plumbers Act is the varied interpretations of whether a registered plumber is required to sign-off work involving the installation of irrigation systems on-farm. There is currently a grey area when a domestic/business supply is connected to the same water supply source as an irrigation system. As a result some view the whole system as 'sanitary' and therefore requiring a plumber to carry out the work. INZ's view is that an irrigation system that shares the same water supply source should not be deemed as linked.

7. *The Act needs to provide a clear boundary defining at what point a sanitary water supply starts and thus requires a registered plumber's sign-off.*

8. *INZ suggests the boundary is defined as the water supplies point of entry to a dwelling/building. Reasoning for this is given below.*

9. *Takes from the same source*

Some parties have claimed if an irrigation take is from the same aquifer as a take for domestic/business purposes then they are connected and thus the sanitary plumbing requirements prevail. We refer you to the Water-NZ and PGDB backflow prevention guidelines. INZ does not agree with this interpretation and our legal opinion confirms this.

It should be noted that in this instance Regional Council and Unitary Authority plans assess any potential risk to the source (aquifer/river). If a risk is identified policies and rules are included within the regional plan, these outline any additional considerations or consent conditions that must be included upon water take permits. An example of this would be backflow prevention requirements for all irrigation takes within the Christchurch aquifer zone.

10. *Takes from the same bore*

Some parties have claimed if an irrigation take is from the same bore as a domestic/business take then they are connected and thus the sanitary plumbing requirements prevail. INZ does not agree with this interpretation and our legal opinion confirms this.

In this instance the domestic/building supply typically comes from a storage tank that is connected to the irrigation headworks and supplied by the irrigation pump. On the dwelling/building supply side of the storage tank another pump is typically used to pressurise the dwelling/building water supply or alternatively the storage tank is elevated to provide the required pressure. Post this a water supply pipe is then run to the dwelling/building. This

approach ensures the irrigation pump (that is sized for the irrigation take) is not constantly turning on and off (greatly shortening its serviceable life) and also prevents domestic supply interruption when the irrigation system is at peak use.

Based upon this analysis INZ suggests that the logical boundary for the 'sanitary' requirements start is post the water supply pipe to the dwelling/building. This takes into account that irrigation companies are frequently asked to install the domestic storage tank, pump and supply line to the dwelling / building as part of a much larger irrigation development / upgrade. If concerns arise around quality assurance INZ would be happy to discuss the application of its training and accreditation programmes for this.

11. Design and Installation of Irrigation Systems

The scale, size and complexity of the pumping and hydraulic requirements that supply irrigation systems is often beyond the typical skill set of a registered plumber, noting that industrial plumbers have some transferable skills in this area. In fact over the last ten years irrigation pumping and pump control systems have advanced so greatly that it is now often beyond the skill set of any one individual to successfully manage a modern design and install. There needs to be a blending of hydraulic, pumping and electrical knowledge to avoid inadequate and often dangerous installations. Irrigation designers are specialists, as are those that manage irrigation installations. To ensure the continuation of successful outcomes for irrigators (the design and installation of efficient and effective irrigation systems – both energy use and ability to deliver the required amount of irrigation at the right time) it is vital those with the specific skills are engaged to undertake the design and installation. Clearing up the 'sanitary' boundary issue alongside current INZ industry initiatives will do this.

12. Finally it should be noted INZ has no issue with a registered plumber or a plumbing business undertaking the necessary training to become a certified irrigation designer or accredited irrigation design company.

INZ Submission Ends