

NATIONAL WATER MAIN TAPPING COMPETITION - PROCEDURE

INTRODUCTION

The Water Main Tapping Competition originated in the Australian water industry in the late 1980's.

A water main tapping is the point where the supply to a private property is connected to the water main. This process is conducted on a live water main, avoiding the need for a network shutdown that would then result in a water outage for the customers.

A water main can come in many sizes and materials. Some water main pipe materials consist of PVC, Ductile Iron, Asbestos or Cast Iron.

Our ambition is to hold a Water Main Tapping Competition in every State and Territory across Australia.

Each State/Territory winner will be invited to participate in the national competition, to determine Australia's annual Water Main Tapping Competition team of the year.

It would then be proposed that our national champion goes up against another country, in an international competition. Potentially against the Water Industry Operations Group New Zealand.

The intent of this competition is to raise water industry awareness, acknowledge the work of network operators, and the broader water industry operations sector that provides customer service 24hrs/7 days a week.

COMPETITION RULES

1. The water main tapping will be on a pressurised section of 100mm DICL pipe, set up on a stand, and pressurised from a water tank or town supply.
2. Tapping's must be completed without the use of electrical or pneumatic tools or devices.
3. Teams of two compete in time trials consisting of two teams competing at a time.
4. A safe work method statement or JSA is to be completed by the teams and reviewed by the judge/s prior to commencing the event. Each team member must agree to and sign onto the SWMS/JSA before competition commences. ([Appendix 2 Watermain Tapping Competition – Job Safety Environmental Assessment JSEA](#))
5. Each team member must wear the appropriate PPE required to tap a live water main. The PPE required includes gloves, steel capped boots and safety glasses.
6. Each team is supplied with the necessary tools and fittings to complete a 20mm water tapping on a 100mm DICL pipe.
7. Each team will be provided two opportunities to tap the water main to give each team a chance if a fitting or tool breaks.
8. The teams will carry out an under pressure tapping through a TPFNR ferrule and connect a length of poly pipe to a ball valve.
9. It is up to the team members to check all tools and fittings are working prior to competition. Equipment failure is deemed the fault of competitors. Tool kit to be placed on ground underneath working area.
10. At the beginning of the heats, a countdown and starting whistle will sound and the competitors may start the process of tapping the water main.
11. Two independent timekeepers will time the competitors using stop watches (one for each team).
12. The two-person team install the tapping band and ferrule on the 100mm pipe, tap the water main, install 1 metre of poly pipe, and install a ball valve on the end of the poly. All parts provided must be used to be deemed a full install.
13. When a team has finished, they must:
 - Turn the water off at the ball valve.

- Return all tools to the toolbox (exception is thread seal) & shut the lid; and
- old up their hand which indicates to timekeepers of a completed tap.

14. Once completed, the time will be stopped by the timekeepers and an interim time recorded pending the judge's inspection. ([Appendix 1 – Judges Log Sheet](#))

To participate in this national competition, you must have competed and won at a WIOA State/Territory event:

Location	Event
Queensland	WIOA Conference
New South Wales	WIOA Conference
Victoria	WIOA Conference
Tasmania	Interest Day
Western Australia	Interest Day
South Australia	Interest Day
Northern Territory	Interest Day

NATIONAL RECORD HISTORY BOARD

Year	2024*	1990**
Event	National Titles – Reece/Viadux DC, Melbourne	LOGOV Conference Sydney
Team	Dan Nuku, Tom Brown	Alan Batchelor, Keith Lane
Company	Gold Coast City Council	Gold Coast City Council
Time	1:20.50	1:10

*Current National Record.

**Historical national record set prior to competition Hiatus in 1992.

JUDGING

The watermain tapping and pipe fittings will be inspected for leaks or faults by the judge/s post completion.

- The following penalty times will be added to the interim times:
- Small Leak on service (per leak location) – 10 seconds added
- Major Leak of service (per leak location) – 20 seconds added
- No water to the ball valve – 10 seconds added
- Tapping not through pipe wall – 20 seconds added
- All tools not in toolbox (excluding thread seal) – 30 seconds
- Part not installed into assembly e.g. tap washer - DNQ

When the water tapping is complete and inspected, the judges

will record the time for the heat. The two fastest teams recorded on the day will be announced the competition winner and runners-up.

COMPETITION LOGISTICS

To ensure the smooth running of the event, it is recommended that a minimum of 3 Competition Supervisors are involved from the setup to the completion of the competition.

Competition Supervisors will be required to:

Prior to competition

- Assist in the construction prior to the competition commencing. This includes setting up the water supply to the tapping rig as well as tightening joints that are leaking when the rig is pressurised.
- Ensure that tapping kits have all the required parts and drill bits.
- Ensure there are enough parts provided for each heat to limit the need for removal of thread seal tape and reuse of fitting during competition.

During competition

Clean up of fittings such as removal of thread seal tape from used fittings as required.

- Once tap has been inspected by the judge/s, depressurise the rig by isolating and bleeding pressure through the bleed off point.
- Removal of the ferrule to check if the tapping has gone through the pipe wall in its entirety.
- Installation of the 20mm plug to used tapping band.
- Repressurise the tapping rig before the commencement of the next heat.
- General housekeeping.

Post competition

- Assist in dismantling the tapping rig and associated fittings.
- Pack up used fittings.
- Disassemble the water supply.

MEDIA / COMMUNICATIONS

Reece Civil Viadux are the proud sponsors of this competition. We aim to prominently feature their branding throughout the event, including photos and videos related to the competition, banners, and their logo at key locations. Additionally, we will quote them in all verbal and printed communications whenever possible.

External communications will also include the following themes:

- We have an expectation that we can turn on a tap for a drink of water, to cook or take a shower and give no thought to what it takes to operate and maintain the municipal water

infrastructure.

- Australians are fortunate to have safe, clean, and drinkable tap water compared to other countries.
- The general public may not be aware of the infrastructure and effort that goes into delivering water supplies.
- Ultimately, we want to celebrate our unsung heroes – the water operators, their crews, and the water company, who deliver this service 24 hours a day, seven days a week, year-round to ensure we have a continuous safe supply of drinking water.

PROCEDURE CONSULTATION TEAM

- WIOA Watermain tapping competition Chair.
- Reece Civil & Viadux
- WIOA Staff

EQUIPMENT LISTS

The water main competition pipework will comprise of a length of Ductile Iron Cement Lined (DICL) PN35 Flange/Flange Pipe, with hydrant risers, bends and tees for legs, connected to the water supply provided at the event. Water supply pressures should not exceed 600kPa if supplying via a Pump or portable reservoir system to ensure safety of competitors and spectators whilst conducting the live tap.

[View full Equipment List](#)