

12th March 2020

NEV Water – Water & Sewer Connection Specifications

This specification sheet is for Plumbers and Contractors who are performing works within the Narara Ecovillage development and sets out the connection requirements as required by NEV Water who is the water supply authority within the development.

NEV Water is the owner of all the water and sewer infrastructure within the development site and holds water utility Network Operator and Retail licenses under the NSW Water Industry Competition Act (WICA) to supply potable water, non-potable water and sewer services to all the houses and community facilities within the village. (NSW Licence Number: 17_040)

NEV Water obtains bulk potable water from Central Coast Council and pumps this water, via a break tank, up to header tanks located at the rear of the property (85-meter RL). These tanks then service the village by a gravity feed ring main reticulation network. Plumbers should note that tests undertaken since the completion of civil works have measured at 620 kPa at the lowest point in the system.

Connection requirements.

1. **Potable water.** NEV Water will provide a riser from the main with isolation valve and water meter (RWC P.D. Water Meter w/NSW coupling. WM KIT 231) which has a dual check non return valve built into the meter, at the property boundary. There is no requirement to install any additional non return valves. Plumbers should make their own evaluation of water pressure and, based on the household equipment being installed, make their own decisions with regard to additional pressure limiting valves. It is the plumber's responsibility to connect the house plumbing up to the water meter.
2. **Non-potable water** supply (Lilac system). NEV Water will provide a riser from the ring main with isolation valve and dual check valve. The non-potable water supply is a non-metered system, so no meter is supplied or required. NEV Water does not require any additional non return valves for this system as this non potable water is only to be connected to flushing toilets and some outdoor taps (identified as lilac). It is a requirement of the NEV Building standards to connect all flushing toilets to the lilac non potable water system and not to the potable water supply. Residents can elect to connect their flushing toilets to their own rainwater tank system. It is the plumber's responsibility to connect the house non potable water system to the non-potable water riser.
3. **Rainwater.** Narara Ecovillage has obtained an exemption under the BASIX requirements for rain tanks, as there is a 45 mega litre dam on site, so it is not necessary to install a rain tank on each house. However, most homeowners are choosing to install rain tanks as a sustainability measure. The most recent plumbing

code allows for rain tank water to be used as a potable supply throughout the house, so long as appropriate measures are installed in the collection and distribution chain, such as first flush diversion, vermin proofing and filtration. NEV Water's position is that so long as the dwelling meets both the plumbing code of Australia, the construction code and appropriate AS, then utilising rainwater as a potable supply is permitted. A potable rainwater tank system may require back up connection to the NEV potable water ring main to be able to refill empty tanks. In this case an air gap is required between the two systems and no direct interconnection is permitted.

4. **Sewer.** All sewer mains within the NEV site are owned and operated by NEV Water. The sewer is a gravity feed system that drains down to buffer tanks located at the lowest point of the system. The sewer mains are constructed of MDPE (Medium Density Poly Ethylene) and require a specific welding tool to connect joins and fittings. There is a specific adapter coupling that is required to connect MDPE to PVC (110 – 100 PEAP 1110) that is available from most plumbing suppliers. If your usual supplier does not carry this adapter, then Eagles Plumbing in west Gosford will be able to supply it.

All plumbing is required to meet Australian Standards, the Plumbing Code and the Building Code of Australia and is inspected by the local Authority to ensure that all work performed meets these standards.