**REDUCING WATER WASTE WITH SAFETY IN MIND**

*Lee Cartwright Unified Water Lavel Association MD highlights why it's important to consider water safety when reducing water waste*

There is a wealth of advice available on how to reduce water waste and the Unified Water Label Association supports those organisations and companies that take the threat of water shortages seriously.

However, what many sometimes overlook is that reducing water waste cannot be viewed in isolation, as there are many factors to consider to ensure the measures introduced are not detrimental to health.

Water usage in both domestic and commercial situations cannot be treated as a stand-alone, water is part of a system, and in the UK, these systems can vary considerably.

It is not only that the UK has different water pressures to contend with but the systems that manage the flow and heating of water can be complex and, in some parts, outdated.
It is therefore important that any decisions consider a holistic view, ensuring products and systems are compatible.

Reducing water flows is not a simple solution as it's not just water flow but velocity that can impact the hygiene aspects of pipework. Water velocity is extremely important to keep pipe work clean and free from air borne pathogens, a fine balance is required to reduce water but maintain hygiene aspects. Reducing flows too much could increase the risk of water borne disease such as Legionella.

Water is carried around buildings by pipework and sometimes that pipework may not take the most efficient route. Piping systems should be designed to reduce any dead legs of water, and heating systems centralised to keep the amount of pipework as low as possible.

There is plenty of choice for hot water heating systems in the market, selecting the best products to work with the chosen system will mean that everything can work together, and the system can operate safely and with maximum efficiency. Homeowners should seek advice from a professional installer or plumber, especially with the increase of differing types of water heaters, heat pumps and solar panels, which are not always suitable for all types of homes or buildings.

Industry is leading the way on water efficiency and has brought to market many innovative products. The best of these products will have considered the user's needs and provide a

water efficient solution that does not compromise on the user's experience. If products do not perform then they will be replaced by ones that do, which may not be as water efficient, compliant, or may even be unsafe.

Education is key if meaningful change is to be achieved. Changing behaviour will increase the amount of water used. No amount of technology can compensate for bad habits but if information is provided then issues such as double toilet flushing can be reduced. Some behaviours can be encouraged via clever design, such as electronic taps which can be set to not flow unnecessarily. Education starts at the beginning by reaching the professionals of the future, via those students currently in education.

In the future, homes and buildings could have a log that records when items have been replaced or repaired. This would promote best practice and help ensure that when the time arises the most appropriate 'swaps' can be made, keeping the integrity of the complete system in place.