

Wanganui Soft Water – Stage One

Questions and Answers

ABELARD BORE

- 6.5 million litres/day
- Start at 5 million litres/day and slowly ramp up over two weeks
- Test and control treatment, system switched regularly on and off for fine tuning and commissioning.
- Water temperature is 19°C

WATER SUPPLY

- Q. What does Stage One mean?
A. Hardness is currently at 180 ppm - 200 ppm (parts per million) Calcium Carbonate equivalent which will reduce to less than 130 ppm depending on how much water the city needs in a day.
- Q. Will we see an immediate difference?
A. The change will be gradually increased over the next few weeks so as to allow us to manage treatment and overall water supply operation. We mix the new soft source with the existing hard source.
- Q. Will everyone now get the water?
A. Yes
- Q. Will there be differences during the year?
A. Yes – The more water people use, particularly during summer, the more hard water source is needed to supply the city. Stage Two is required to increase the level of soft water supply and provide greater consistency.
- Q. When can we expect more consistent lower soft water levels?
A. Stage Two (Heloise Bore) is currently being cleaned so that water samples can be retrieved and tested. Depending on water quality, it is possible this source would come online about April 2010. A further bore site is being evaluated.

WATER HARDNESS

- Q. What is hardness?
A. Hardness is the amount of Calcium Carbonate (Lime) in the water. This becomes noticeable when the water is heated which allows the calcium to drop out (eg. the Lime in the jug).
- Q. What is the current hardness of the City water supply?
A. The City supply currently sits at 180 ppm – 200 ppm (parts per million).

- Q. What will happen to the hardness at this time?
- A. We will aim for a level of hardness of less than 130 parts per million (ppm) of calcium carbonate equivalent for 2009/10 (Stage One). It will likely reach 100 ppm particularly during lower City water demand periods.
- Q. Can we expect even softer water?
- A. After 2009/10 the consistency target is to achieve less than 100 ppm.
- Q. Will the hardness vary?
- A. Yes, hardness will vary with the seasons and daily peak water demand, plus for operational purposes. Bores require maintenance and will be taken off-line as required which will increase hardness temporarily if water demand is high.

SOFTER WATER BENEFITS

- Q. What are the benefits of softer water?
- A. Hard water has the effect of clogging fittings with scale, scale formation on hot water cylinder elements, loss of heating efficiency in water heaters, increased consumption of soaps and detergents. It is estimated that hard water causes appliances to wear out 30% earlier than in soft water areas.

A summary of costs per household:

Water heater repair/maintenance	\$50.00
Soaps/detergents	\$118.50
Additional energy use for water heating	\$62.60

Total rounded	\$230.00
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- Q. What other benefits will occur?
- A. The new source will provide additional protection during high water use times or periods of drought. Also if any other source fails, the new source minimises the consequences.

WATER QUALITY

- Q. Is the water safe?
- A. Yes – The water is tested regularly and is required to comply with the New Zealand Drinking Water Standards. Commissioning of the source water (Stage One Abelard) will take up to one year to refine the treatment and operation (to cover winter and summer periods). During commissioning numerous locations around the City will be tested.
- Q. Will there be taste and odour issues during the year?
- A. Yes – The water supply naturally develops taste and odour issues primarily associated with chlorine treatment.
- Q. Will the odour and taste disappear?
- A. The system will be regularly altered and refined plus the water pipes will be regularly flushed. Flushing will alleviate this and refinement of full scale chlorine control will take time. Taste issues for any water supply are common regardless of the sources.

Q. Will the water supply be discoloured?

A. The water in the existing system can naturally discolour, and where it is too noticeable we flush the water mains. We do not expect an increase in normal operational requirements.

WATER SOFTENERS

Q. If I have a water softener can I stop using it?

A. Residential people with water softeners should retain their softeners until commissioning is complete over the next year. There will be no need for people to get rid of softeners, as they may wish to achieve lower softening levels, depending on what they wish to achieve.

Q. I was going to buy a softener, should I still get one?

A. For those who do not have softeners and are thinking of getting one you will need to make a cost/benefit decision whether you require one over the next year or beyond, and to what level you may wish to go to.

Q. Can Industry rely on the supply of soft water?

A. Those industries requiring soft water should always maintain their own softening capability and capacity, which is similar to having chlorination capacity. Council cannot guarantee that softening to less than 100 ppm will be always available in times when maintenance, breakdown, or excessive demand may occur. Industry may also require specific levels beyond that which Council will provide.

Q. Will Industry notice a reduction in cost?

A. Yes, on average, if Industry heat water, they will notice reductions in costs of maintenance.

CONTACT

Q. Who do I call if I have an issue with water?

A. Contact the Council (06) 349 0001. Council staff are trained to ensure water issues are dealt with. Our water operators, engineers and specialist contractors are fully trained to operate a water supply and its requirements 24 hours/day.