

29 March 2012

Record No: 1298944
File Ref: W270-02
Ask For: Stephen Rooney

Awatere Water Supply Residents

Dear Resident

Awatere Water Supply Treatment

During 2010 and 2011 Council consulted with the community regarding treatment of the Awatere Water Supply. Three alternatives were considered, full treatment, MIOX treatment and point of entry treatment. The results of a poll resoundingly preferred the MIOX treatment option.

Staff have been working towards installation of this system to treat all of the Awatere Water Supply below the Blairich pump station. While there have been some “hold-ups” with the supply of the MIOX unit and upgrades of the power supply at the site it is hoped the system can be commissioned during late April to early May.

To remind you of the MIOX process the following was in the flyer sent in November 2010.

What is MIOX?

MIOX is a brand of sodium hypochlorite generator. It works by passing an electric current through salt water to produce a range of oxidants including free **chlorine**, which is used to disinfect water supplies. The salt used in this process will come from the Lake Grassmere saltworks, and be combined with the Black Birch raw water.

The mixed oxidant solution created by this process is then injected into the water main to disinfect the whole of the Awatere Water Supply network.

The introduction of MIOX will reduce the risk of illness by inactivating E. coli and other bacteria when the water in the Black Birch catchment is clear. Based on the Cheviot experience, the use of MIOX may allow the permanent Boil Water Notice to be lifted.

When the Black Birch water is dirty (in flood) the MIOX system may be ineffective. During these periods it may be necessary to issue a Boil Water Notice for the duration of the event. This is estimated to occur two to four times a year.

MIOX is preferred because it is currently the most economic step toward compliance - for a lower cost than full treatment it provides safer water than is currently available. While MIOX treatment will not be fully compliant with Government regulations it can be used as the disinfection stage of future full treatment (currently required by July 2014).

Operation and maintenance of the MIOX system will be carried out by Council staff and contractors.

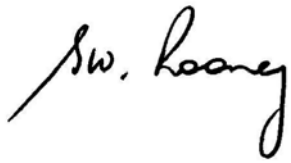
The commissioning process will introduce MIOX chemical (free chlorine) to the system gradually to reduce the impacts of the disinfection processes with biofilms in the water mains. It is documented that biofilm build-up within mains will be reduced with the addition of MIOX but it would be undesirable for this to take place over a short period.

We will seek to maintain an equivalent free available chlorine concentration of 0.6 parts per million once commissioning is completed.

There will be no further direct notification of the systems “switch on” however it will be advertised on Council’s website and in the Council Thursday notices page in the Marlborough Express.

Council sought from the Government Drinking Water Assistance Programme subsidy for the treatment plant’s installation. This was granted in late 2011 with a total subsidy of \$47,807 being approved.

Yours sincerely

A handwritten signature in black ink that reads "S.W. Rooney". The signature is written in a cursive style with a long, sweeping underline.

STEPHEN ROONEY
OPERATIONS & MAINTENANCE ENGINEER