

# Ratana Water Supply Upgrade

## Newsletter – March 2015 (Issue 2)

---

The major upgrade of the Ratana Water Supply system being undertaken by the Rangitikei District Council is now under way. This newsletter provides an update on progress to date and information on what works are still to be carried out and when.

In response to concerns that the water supply was not suitable for consumption the Council applied to the Ministry of Health Drinking Water Capital Assistance Programme in 2008 for funding to identify a new water source for the community. That application was successful, and in 2010 a new bore was drilled to a depth of 185m, tested and developed which included the installation of a screen.

Subsequent to that a further application was made in 2012 for new treatment and storage facilities together with other associated works. This was approved in October 2013.

### Scheme Details

Water from the new bore is generally of good quality, and is free from microbiological contaminants but requires treatment to reduce its hardness and ammonia content in line with the requirements of the Drinking Water Standards New Zealand 2008. A new treated water reservoir, pump station and transfer pipelines are also required. The new treatment plant and reservoir will be sited 1 km to the north of the township just off Ratana Road.

### Scheme Progress

Preparation of the site for construction, including extensive earthworks has now been completed. This involved the excavation of around 2000m<sup>3</sup> of material from around the old silage pit.



**New Water Treatment Plant Reservoir Site off Ratana Road**

It is intended to commence installing the new treated water and process water return pipelines from the treatment plant to the community and the pipeline from the new bore to the water treatment plant before Easter this year with completion expected by mid-2015. Construction of the new 766,000 litre storage reservoir is planned to be completed by the end of May. The reservoir will be a 12.8m diameter by 7.5m high circular tank constructed from dark green glass coated bolted steel panels.

The detailed design of the water treatment plant is currently being developed by Filtec who are water treatment specialists. It is intended that the water hardness and ammonia level will be reduced by using Cationic Ion Exchange and Break-point Chlorination processes. Site trials have been undertaken to confirm the suitability of these processes and to identify the most suitable resins to use in the Cationic Ion Exchange process.

### **Ratana Water Supply Upgrade – Key Facts**

Project cost (total)	\$1.672 million
Government contribution	\$1.034 million
New treatment plant capacity	350m <sup>3</sup> /day (350,000 litres per day). Increasing to 500m <sup>3</sup> /day (500,000 litres per day) during major events, such as the Ratana Festival
New reservoir capacity	766m <sup>3</sup> (766,000 litres)
Total length of new pipelines	2,200 metres – includes the pipeline from the bore to the treatment plant, the treated water and process return pipelines from the treatment plant to the township and the overflow pipeline from the reservoir to the stream
Completion date	End 2015

### **Rangitikei District Council Contact**

For further information contact Mike Fletcher, Senior Project Engineer or Joanna Saywell, Asset Manager Utilities on 06 323 0000.