

**Industry:** Sewage and Water Treatment  
**End User:** Watercare Mangere, New Zealand  
**Application:** Peak Cap Bearing in Primary Sedimentation Tanks  
**Thordon Grade:** SXL  
**Date of Original Installation:** 2010

### Challenge:

One of the issues with the greased white metal (Babbitt) bearings is the grease lines as they can be subject to damage from sticks, rags or trash moving through the tank. If the grease doesn't get to the bearings for any reason, then the bearings will gall, pick up or seize. Dewatering a tank in order to replace the bearings costs a lot of time and money.



*Typical PST (Primary Sedimentation Tank) Setup*



*Peak Cap bearing, shaft and grease line*

### Solution:

In 2010, a trial was run at Water Care Mangere where Thordon SXL bearings replaced greased white metal (Babbitt) bearings in the Primary Sedimentation Tanks. The shafts are made of mild steel and they run 24/7 at a very slow speed. The staff at Mangere wanted to remove the grease lines. Thordon SXL was recommended due to its grease free operation. The objective of the trial was to determine if the shafts could operate without grease without having corrosion issues.



*Thordon Sxl Grease-Free Bearing*



*White Metal Babbitt Bearings*

### Results:

After 18 months, there was no wear on the grease-free SXL bearings and only minimal wear on the shafts. Due to the successful trial, the white metal bearings are now being replaced with Thordon SXL grease-free bearings in the tanks that are coming up for service.