

Sweeneys Lagoon Monitoring Update

April 2007

Groundwater monitoring took place at Sweeneys Lagoon on the 9th of February, and groundwater and photopoints were also monitored on the 5th of March. Thanks to Aimee, Louise and Craig who helped out.

The wetland and the creek are now completely dry, with the wetland bed displaying large cracks in the clay. Surface water obviously could not be sampled at these times.

Photopoints

A single photopoint has been established at Sweeneys, with 4 directions used. Photos from direction '01' are displayed and show the change in water level and development of dry wetland bed vegetation.



Photopoint (direction 01) established 28th July 2006. Wetland still has water due to high river levels and pumping project. Lots of floating azolla on edge of water, red gum in background looking healthy. Good work Ben!



Photopoint 01- 7th December 2006.

Clumps of juncus have increased just behind Tumi. Water has receded to a small puddle in centre of wetland (out of view of photo). Rats-tail couch (native grass) starting to spread, but wetland bed is still relatively bare.

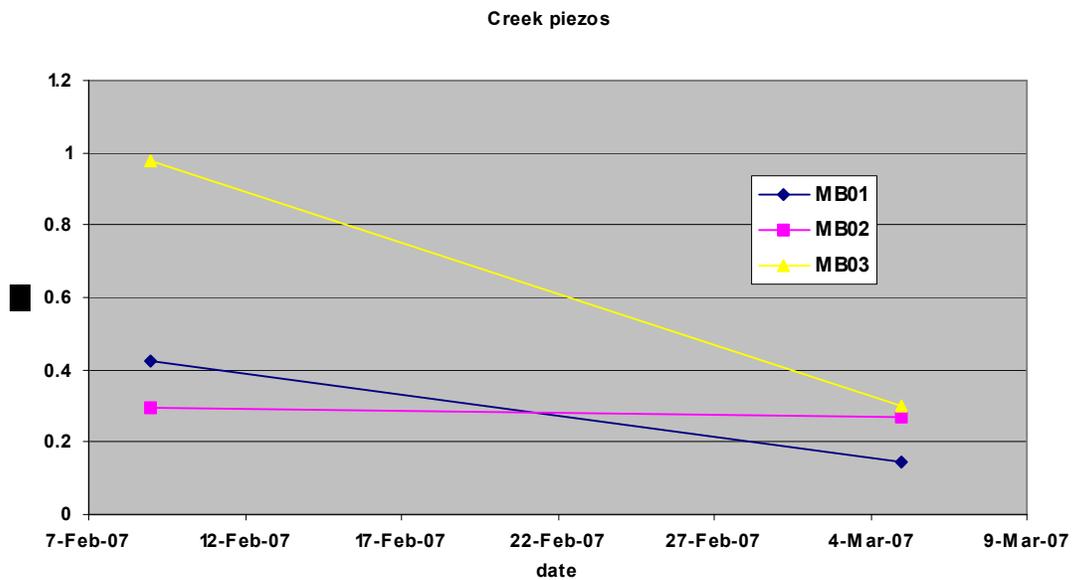
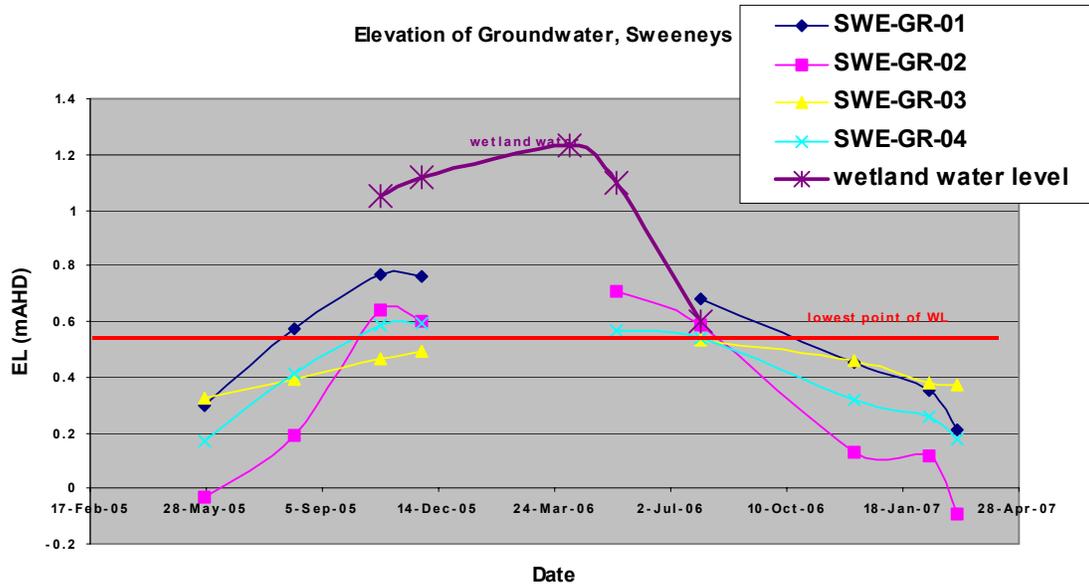


Photopoint 01- 5th March 2007.

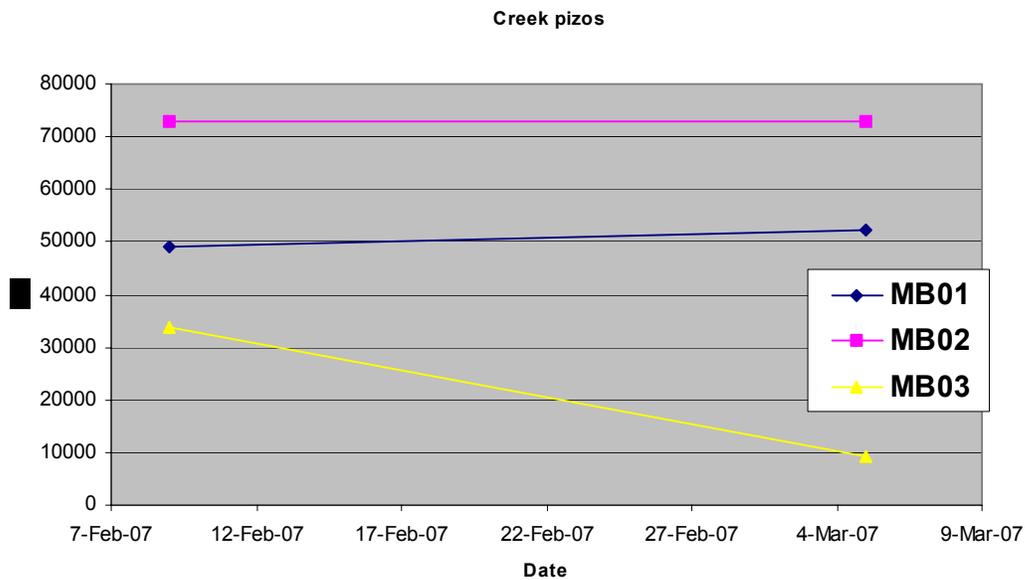
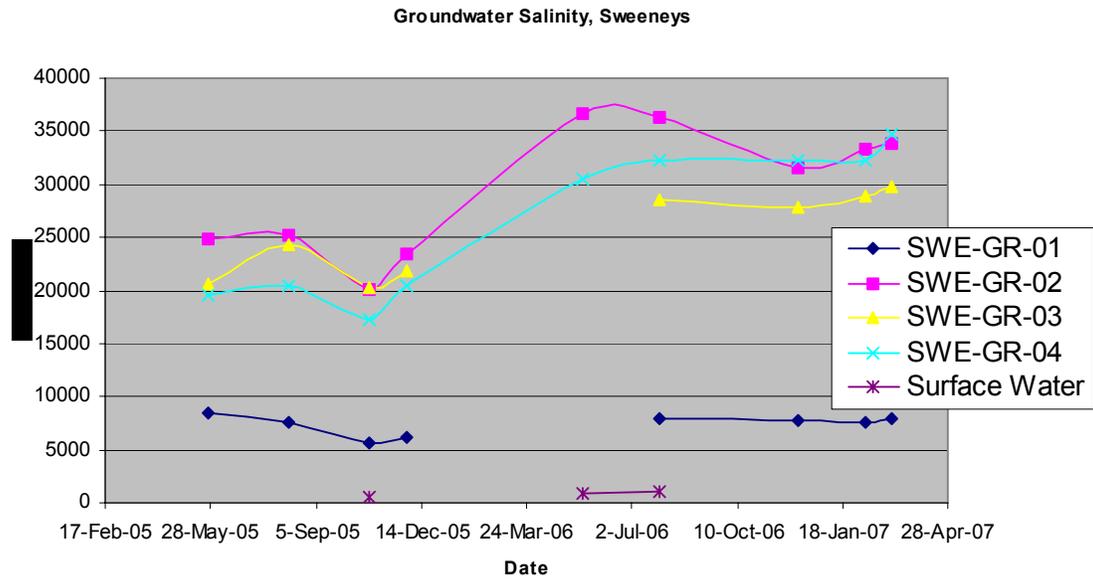
Red gum in background has significantly less foliage. Lignum still looking healthy, rats-tail couch and chenopods establishing and covering wetland bed. Typha in background looking stressed from lack of water.

Groundwater

Groundwater levels around the wetland have dropped rapidly in conjunction with the fall in surface water levels and the drop in river level. Results show that groundwater flow is likely in a south-westerly direction, as the highest elevations are found in the north-east section of the floodplain. Groundwater levels have also fallen in the temporary creek beds- most likely a result of river levels also dropping. All groundwater levels are much lower than the elevation of the wetland bed, indicating that it is unlikely that groundwater is entering the wetland basin.



Groundwater salinity levels have increased slightly over the last few months, with the highest salinity recorded in piezo MB02, situated in the creek, at 73,000EC (about 1.5 x seawater). The freshest salinity was recorded at piezo SWE-GR01 (located next to the wetland), which has remained fairly constant. The biggest drop in salinity was seen in piezo MB03, the most northerly of the creek piezos.



Vegetation

Permanent vegetation monitoring quadrats have been set up at two sites at the wetland based on elevation gradients. Data has been collected for two consecutive years in summer. A total of 33 plant species have been surveyed in the small area covering the quadrats.



Some of the different vegetation communities surveyed