

CASE STUDY

Racecourse Drainage

Location: Tweed River Jockey Club, Murwillumbah, NSW

One of the major performance and financial issues for racetrack owners is flooding and poor drainage.

There have been many techniques developed to overcome this problem, including sand slitting and narrow sand filled trenching.

Capiphon™ has been shown to have superior performance when compared to Ag Pipe in many different situations. It does this through its capillary and syphoning action as well as gravity.



Andrew Small, Projects Manager, Racing NSW, arranged for this comparative trial to be undertaken at Murwillumbah with the financial and in-kind support of Racing NSW's Country Racecourse Development Fund and the Tweed River Jockey Club.

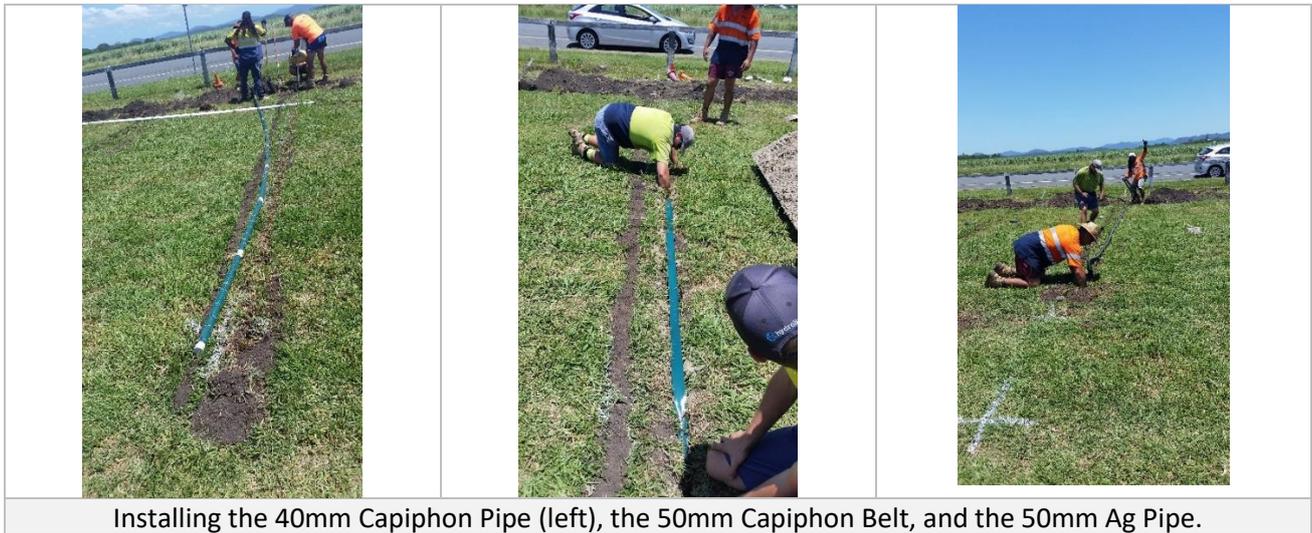
Two different configurations of Capiphon were tested against the standard Ag Pipe system specified by Racing NSW, making three treatments in total.

1. The standard Ag Pipe system of 50mm slotted poly drainage pipe (Ag Pipe) placed in a 70mm wide trench, some 350mm deep, and backfilled with approximately 250mm of 5-7mm diameter gravel, thence coarse sand to the surface.
2. Capiphon belt wrapped around one metre lengths of 40mm DWV PVC pipe, joined together (through a patented method). The resultant pipe was placed on a shallow bed (<10mm) of coarse sand in the bottom of the trench before backfilling with washed coarse sand.
3. 50mm Capiphon belt placed directly into the trench and backfilled with coarse sand.



Outflow from each treatment trench was combined, and measured by flow gauges.

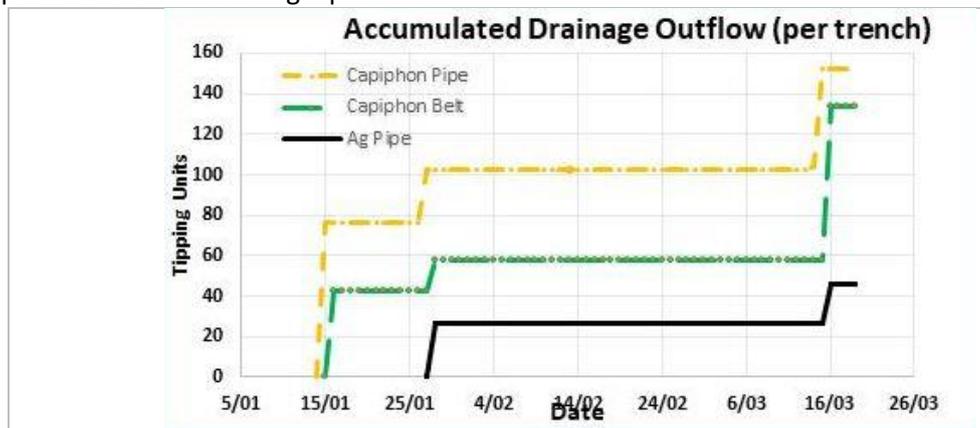




The trial was seriously disrupted by a major flooding event which lead the entire track, including the trial area, to be some two metres underwater.

None-the-less, evidence from ground staff mowing the track is that the whole trial area was greatly improved compared to the adjacent non-drained area. (Staff were not told where the three treatments were located). It is hoped that some comparisons can be made in the future, after the track has returned to normal after the floods.

Despite the shortened time for the trial, early results showed the greater performance of the Capiphon systems compared to the standard Ag Pipe based method.



Even more significant than the increased efficacy of Capiphon, the independent contractor ([Sports Turf Services](#)) installing the system reported that Capiphon installation costs were much lower, to the extent that **the installed cost of Capiphon drainage was some 40% less than the standard drainage.**

The detailed report is Commercial in Confidence but is available on application by interested parties.

Installation proudly sponsored by

- [Racing NSW Country Racecourse Development Fund](#)
- [Tweed River Jockey Club, Murwillumbah, NSW](#)