

POND E, GATWICK

Client: Dyer & Butler

Value: £275,000

Duration: 6 weeks

Project Detail

The project aim was the enhancement and improvement of a watercourse adjacent to a flood alleviation lagoon at Gatwick Airport, West Sussex. Scour protection was improved by installing gabion baskets and a rockfill mattress immediately downstream of a lined section of channel, with the regrading of a failed section of natural bank and replacement of the existing damaged concrete channel.

With the assistance of Suttle Projects, an appropriate permit was obtained from the Environment Agency.

Access had to be gained to a peninsular of land bounded by the lagoon, the watercourse itself and the operational railway. Suttle Projects installed a 32-tonne temporary plant bridge and access ramp adjacent to the existing Network Rail maintained access bridge, which segregated plant and transport from the public.

To maintain fish passage through the worksite, a 300mm continuous pipe was installed. This required the works to be completed in two phases so that the fish pass was in place at all times. Over pumping equipment was installed to deal with excess waterflow past the work site.

The stone filled sacks that had been placed in existing scour holes as a temporary stabilisation measure, to prevent further deterioration of the riverbanks during the previous winter, were removed and stored on site for re-use as part of the proposed works.



Figure 1: Preconstruction

The solution then involved Riprap stone, gabion baskets and mattresses, rock rolls, biodegradable textiles and concrete aprons. This left an attractive, but durable and potentially biodiverse, solution to the long-term maintenance of the channel.



Figure 2: Over pumping in progress with fish pass pipework



Figure 3: Embankment stabilisation



Figure 4: Nearing completion



Figure 5: Completed works to channel