



## WATER & UTILITIES

**Project:**  
Gatwick North Sweeper Tip  
Concept Design

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**Location:**  
Gatwick Airport

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**Market Section:**  
Process

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**Region:**  
South

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**Client:**  
Working on behalf of Costain  
for BAA

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**Value:**  
£20k for Concept Design  
Approx £200k for Final Solution

Barhale's process engineering division were commissioned to provide a concept design for modifications to a sweeper tip, to ensure BAA met the discharge requirements set out by the Trade Effluent license with Thames Water.

The sweeper tip is a discharging area for sweeper and scrubber vehicles that operate airport wide, to maintain cleanliness of aircraft stands, taxiways and roads both airside and landside. Removal of solid and liquid deposits is the purpose of the sweeper tip. Liquid run off is laden with oils, silts, contaminants and solids which need removal before the liquid enters the foul sewage system.

The issue we faced was that the sweeper tip was not fitted with a working interceptor, sediment tank or filtration system and as a result levels of some substances were in danger of exceeding the maximum discharge limits.

Barhale completed initial sampling and surveys at the airport and provided a concept design which involved installation of the following:

- Grit trap
- Oil separator
- New pumping station
- Two stage resin filters
- Sample points
- Analysers
- MCC and Controls

We proposed to test and develop our concept in order to provide process guarantees.

Our proposal was accepted and we were asked to develop the concept into a detailed design with an estimate for installation and commissioning of the new works.