



## Case

# STUDY

## BENTOTEX®

Fernhill Farm

Wetland ecosystem



### MARKET SECTOR:

Environmental



### LOCATION:

Fernhill Farm  
Cheddar Road, Compton Martin



### CONTRACTOR:

Biologic Design Archenhills

## The

# BACKGROUND

**The Fernhill Farm site is in a very sensitive ecological area;**

It is in the middle of the Mendip Hills (AONB) Area of Outstanding Natural Beauty as well as being in Bristol Water's SP3 catchment area - a very sensitive aquifer where water is abstracted to supply the reservoirs for Bristol.

With an effort to create a sustainable resource with support from Mendip Hills AONB and in consultation with the Environment Agency plans were drawn up for construction of a WET System (a constructed wetland ecosystem) for wastewater purification.

## Our Client's

# REQUIREMENTS

Construction of a multi-species, soil-based Wetland Ecosystem

**In order for the WET System to be totally contained, to be a total absorption system and have no outfall - as was required by the Environment Agency it was calculated that it would need to be 0.7ha (approx 90m x 60m) and be planted with over 10,000 willows.**

## Our Value Engineered

# SOLUTION

**The Geosynthetics Bentotex® GCL100 Clay Liner was put forward by Biologic Design due to its self-healing abilities it also meant that the contractor did not need to transport any of the welding machinery, power or geotextile protection fleeces associated with manmade HD/LD liners to this remote site.**

After providing a study undertaken to assess the effects of root penetration, a method statement and a system of leak detection (incorporating our Duodrain® GMG412 product) were put forward. All parties reached consensus and were happy that the products would perform in this demanding application.

Even though the installation was undertaken during a period of high winds, horizontal rain, fog and some snow - as well as brilliant sunshine - all quite normal for the Mendips, the installation was completely successful and the WET System was operating, with no leaks, less than 2 weeks after the liner was installed.

The benefits of using Bentotex® GCL in this case were self-healing abilities, It does not need any of the welding machinery, power or geotextile protection fleeces associated with manmade HD/LD liners.

