

## **BEST Case Study**

### **Sustainable Alternative Natural Greenspace in Surrey**

#### **Background**

Guildford Borough Council own 50 countryside sites covering an area of almost 700 acres, making up 2.5% of the borough's land area. One of these sites is Burpham Court Farm, a 32-acre site north of Guildford, leased and managed by Surrey Wildlife Trust (SWT).

Burpham Court Farm is bound to the North by Clay Lane (part of Route 223 of the National Cycle Network) and to the South West by Slyfield Industrial Estate, an important economic hub with 100 businesses providing over 2,000 jobs. There is also an old landfill site located on the South West fringes of the site. It is suspected that polluted leachate entering the site from the embankment adjacent to the industrial estate originates from the abandoned landfill site.

The site currently has no public access. It is on the fringes of urbanised Guildford, with the most significant residential population with direct access being Jacobs Well, as Slyfield to the South West is buffered by an industrial estate and Burpham to the South East by the A3.

The site is currently used by SWT for livestock grazing as well as supporting small areas of wetland habitat with diverse wetland bird interest. The River Wey crosses Burpham Court Farm, with a weir just adjacent to the site. This structure is owned and operated by the National Trust to maintain the head of water for the Wey Navigation. Downstream of the weir, the channel is not navigable, but it supports good quality flow dependent habitats. The weir, however, currently presents a barrier to fish migration.

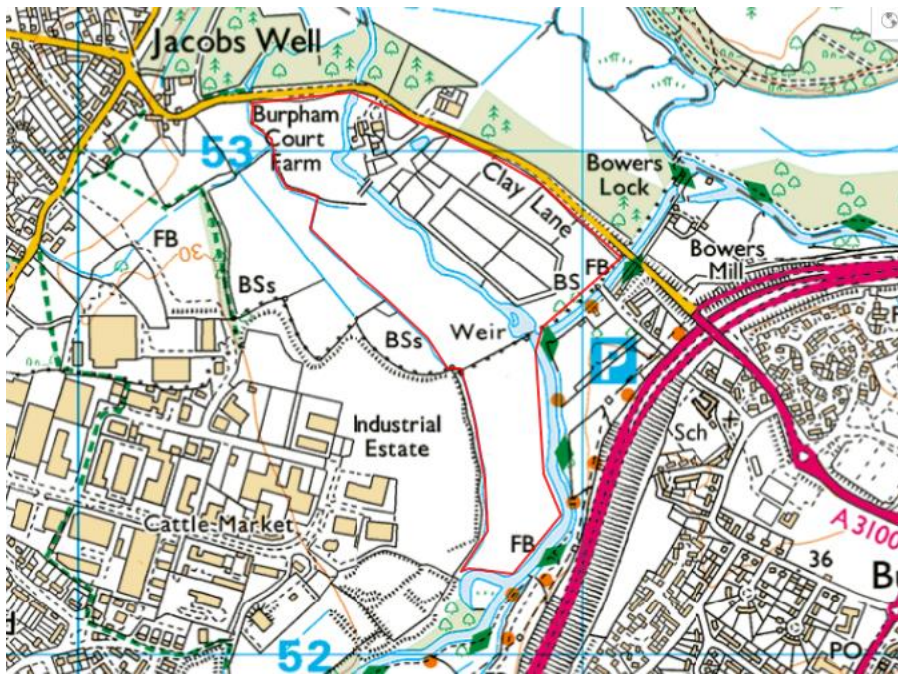
Thames Water's sewage treatment works is to the South of the site. There is also a sewer line running East to West across the site which has at least two manholes showing evidence of surcharge. There are plans to develop more housing and a link road in this area.

#### **Approach**

Guildford Borough Council have developed proposals for this site to be used as a SANG (Sustainable Alternative Natural Greenspace) to support the new housing development. This would mean making this site publicly accessible. A vision for this development would include:

- Guildford Borough Council partnering with Surrey Wildlife Trust to create a wetland nature reserve as a public amenity for the local population;
- Refurbishing farm buildings onsite, owned by Guildford Borough Council, to open a visitor centre and café; and
- Creating a car park at this location to facilitate the new public access arrangements at the site.

There is an opportunity to create a natural bypass channel around the weir to provide a route for fish passage around the structure. The footprint of this new channel will create spawning habitat for fish and support other river wildlife. The site is shown in the map below.



### Results summary

The main results table from B£ST is shown below. The option provides a total present value (PV) benefit of £25.8mn (before confidence) and £7.6mn (post confidence). The benefit cost ratio (post confidence) is 7.6 (range of 1.5 to 38.2).

Present Value Assessment Stage	Total PV Benefits	Total PV Costs	Net Present Value	Benefit Cost Ratio	Benefit distribution score
Present Value before confidence applied	£25,864,537	£1,000,000	£24,864,537	25.9	D
Present Value after confidence applied	£7,638,114	£1,000,000	£6,638,114	7.6	C
Present Value sensitivity - low	£1,529,253	£1,000,000	£529,253	1.5	D
Present Value sensitivity - high	£38,231,326	£1,000,000	£37,231,326	38.2	D

The export report from the assessment is included below. This report includes the following outputs from B£ST.

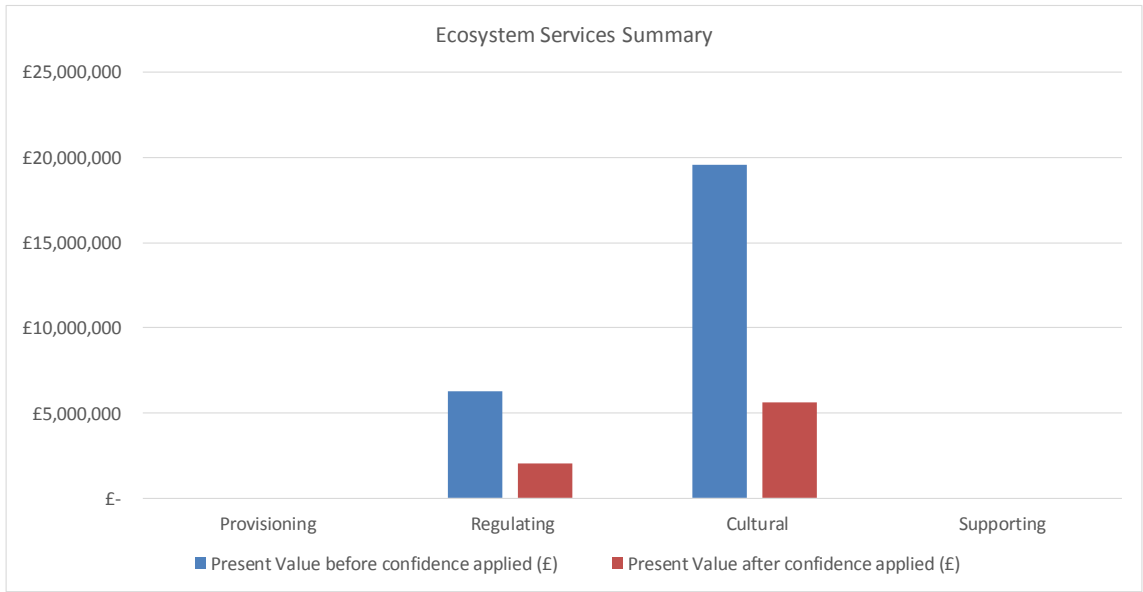
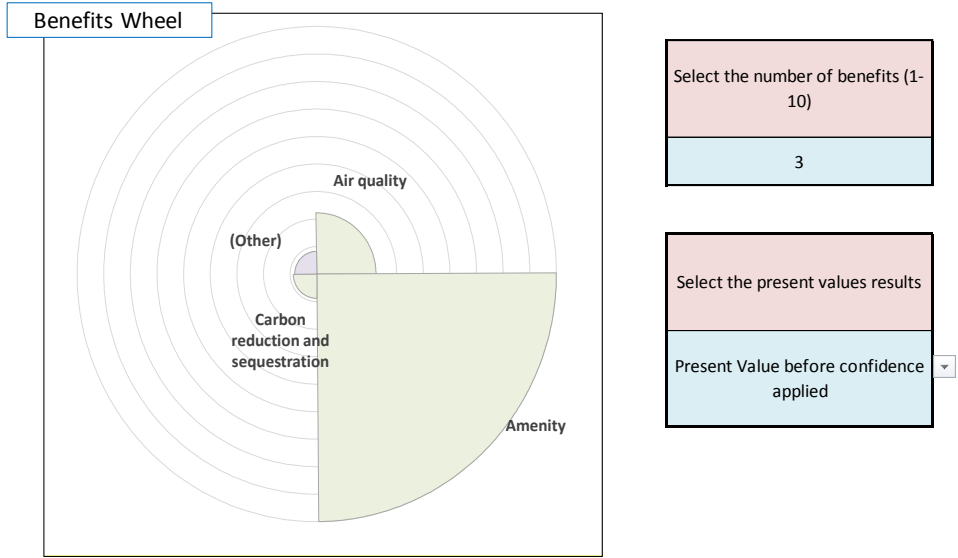
- Project details
- B£ST Results Dashboard
- Written evidence

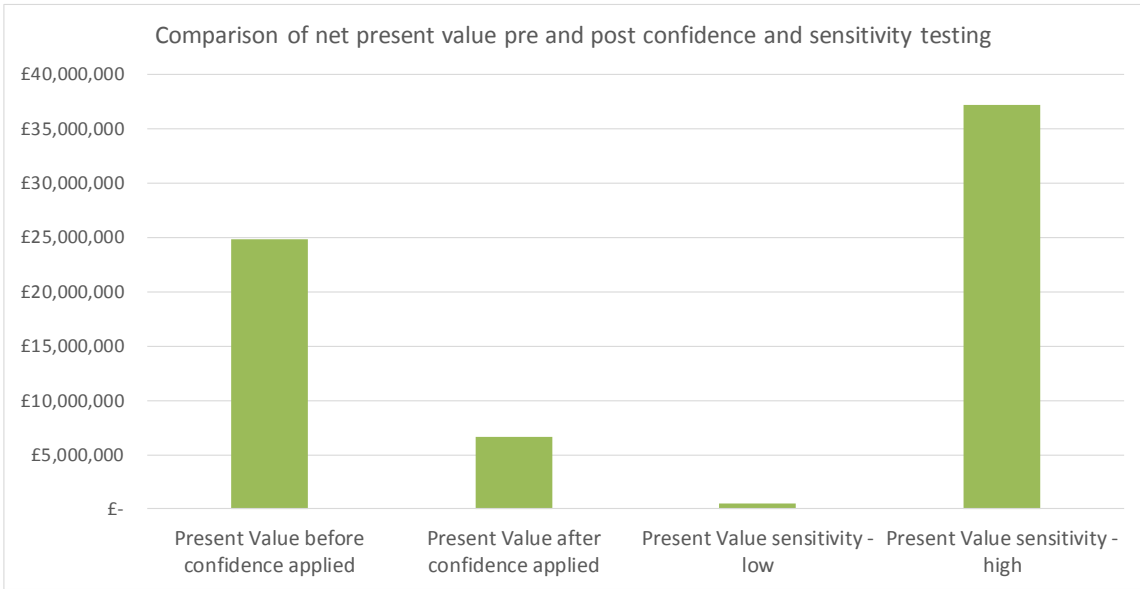
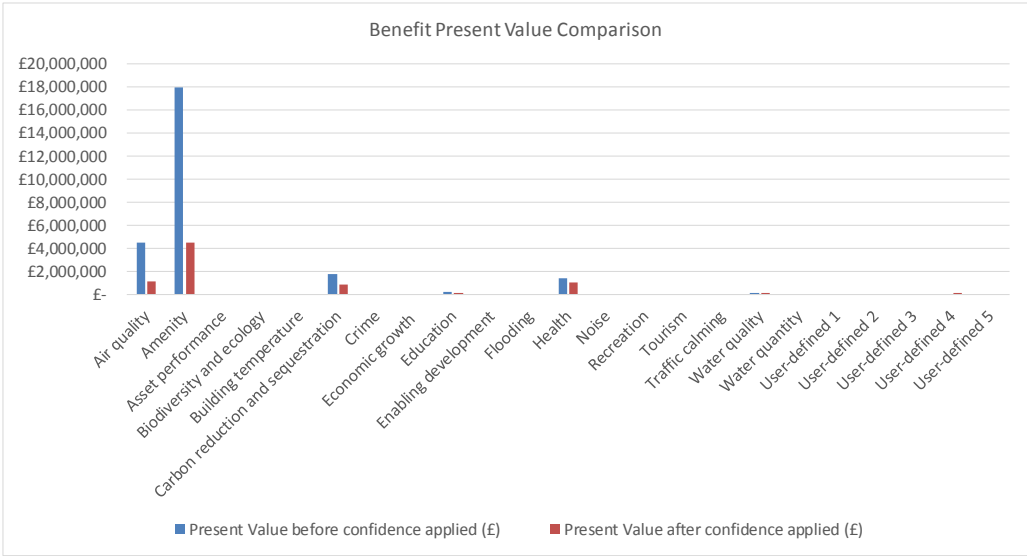
# BEST Export Report

BEST: Version: 4.1., February-2019, 12 Feb 2019, 13:58:00

Author	J McMullan
Date	01/02/2019
Project Name	Burpham Court Farm
Project Reference Number	
Assessment version	1
Location name	Burpham Court Farm
Summarise baseline option	No public access, supports small areas of wetland habitat with diverse wetland bird interest, existing weir impedes fish migration.
Summarise proposed option	Habitat creation/restoration, SANG footpaths & footbridges, fish/eel pass, new water course, education centre & bird hides, car park & cafe.
Baseline option Present Value Cost (if applicable)	£0
Proposed option Present Value Cost	£1,000,000
Scheme supporters	Environment Agency, Local Authority, Water and Sewerage Company
Scheme funders	Local Authority, Water and Sewerage Company
Discount rate to apply	3.5%

# Results Dashboard





## PV Assessment

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## Benefit Category

Benefit category	Present Value before confidence applied (£)	Present Value after confidence applied (£)	Present Value sensitivity - low (£)	Present Value sensitivity - high (£)
Air quality	£4,450,375	£1,112,594	£278,148	£6,953,712
Amenity	£17,994,203	£4,498,551	£1,124,638	£28,115,942
Asset performance	£0	£0	£0	£0
Biodiversity and ecology (not assessed due to risk of double counting with other benefits)	£0	£0	£0	£0
Building temperature	£0	£0	£0	£0
Carbon reduction and sequestration	£1,762,571	£881,285	£110,161	£2,754,017
Crime	£0	£0	£0	£0
Economic growth	£0	£0	£0	£0
Education	£198,683	£74,506	£12,418	£310,442

<b>Benefit category</b>	<b>Present Value before confidence applied (£)</b>	<b>Present Value after confidence applied (£)</b>	<b>Present Value sensitivity - low (£)</b>	<b>Present Value sensitivity - high (£)</b>
Enabling development	£0	£0	£0	£0
Flooding	£0	£0	£0	£0
Health	£1,396,489	£1,047,366	£0	£0
Noise	£0	£0	£0	£0
Recreation	£0	£0	£0	£0
Tourism	£0	£0	£0	£0
Traffic calming	£0	£0	£0	£0
Water quality	£62,216	£15,554	£3,889	£97,213
Water quantity	£0	£0	£0	£0
User-defined 1	£0	£0	£0	£0
User-defined 2	£0	£0	£0	£0
User-defined 3	£0	£0	£0	£0
User-defined 4	£0	£8,257	£0	£0
User-defined 5	£0	£0	£0	£0

## EcoSystem Service

<b>Ecosystem service</b>	<b>Present Value before confidence applied (£)</b>	<b>Present Value after confidence applied (£)</b>	<b>Present Value sensitivity - low (£)</b>	<b>Present Value sensitivity - high (£)</b>
Provisioning	£0	£0	£0	£0
Regulating	£6,275,162	£2,009,433	£392,198	£9,804,941
Cultural	£19,589,375	£5,620,423	£1,137,055	£28,426,384
Supporting	£0	£0	£0	£0
<b>TOTAL</b>	<b>£25,864,537</b>	<b>£7,629,857</b>	<b>£1,529,253</b>	<b>£38,231,326</b>



## Evidence Summary

### Evidence from AQ - Air quality page

- 1: A large number of trees are being planted. This will improve air quality
- 2: • Used <https://www.gov.uk/countryside-stewardship-grants/supply-and-plant-tree-te4> to estimate planting density.
- 3: • Estimated we'd plant 80% of recommended planting density above as shown on section 8 of plan (development buffer) and including some additional trees around car park = 15,580 trees (6,232 large trees, 6,232 small trees and 3,116 medium trees).

### Evidence from Am - Amenity page

- 1: There will be amenity value from the new wetland
- 2: There will be a number of properties that will be positively affected from the proposed scheme.

### Evidence from CS - Carbon sequestration page

- 1: There are a large number of trees are being planted.

### Evidence from Edu - Education page

- 1: Large number of local schools, including primary within close vicinity of the construction, and therefore good access. Simple estimate of the number of children benefitting.
- 2: This scheme also includes an education center and therefore the estimate is at 500 children visiting

### Evidence from H - Health page

- 1: Some positive benefits to physical and psychological of local residents arising from more attractive areas and better quality of local environment

### Evidence from WQ - Water quality page

- 1: The interventions will improve the local watercourses