

Balancing Pond Surveys

Detailed drainage and ecology investigations



Balancing Pond survey underneath the M20 and CTRL

Benefits

- Drainage asset surveys assist pollution control.
- High risk ecological sites identified.
- Surveys enable creation of maintenance plans.
- H&S site access issues identified.
- Accurate reports and shape files produced for upload into HADDMS.

Drainage Asset Inventory Surveys

Since 2006, BBMMJV (previously known as InterRoute) have been populating the Highway Agency's HADDMS database in HA Area 4. Due to the amount of missing data, they took the decision to prioritise capturing drainage information on the balancing pond assets. The benefits of this approach were three-fold: Firstly they would be able to capture and record the pond locations, enabling them to respond to highway spillages with a targeted approach. Secondly, the BBMMJV Ecology team were able to identify high-risk sites that would require special consideration. Thirdly, BBMMJV would be able to programme a maintenance regime sympathetic to the species living in and around the ponds.

Previous Collaboration

Carnell have undertaken a number of highway schemes on behalf of BBMMJV, on their piped drainage network. All of these projects involved accurate GPS measurements, high pressure pipe jetting and CCTV camera surveys to both the comprehensive HD43/04 standard and HADDMS input requirements.

BBMMJV felt confident in commissioning Carnell to undertake detailed surveys of their 87 Balancing Ponds, in the knowledge that they too would be completed to these precise standards.



Considerate approach to diverse wildlife



Drawings produced detailing ecology and access information

Ecological Surveys in Sensitive Sites

Due to their holding function for surface water run-off, and protective perimeter fencing, the sites had a healthy and undisturbed environment, sensitive to investigation. It had to be ensured that the works caused limited disturbance in areas deemed to be 'high risk'. BBMMJV's own ecology team had very little information on these sites so, in conjunction with Carnell's experienced engineers, detailed ecological surveys were undertaken with the general survey works.

Carnell's Single Point Solution

The works were given further added value by Carnell's site team including the watchman role of producing a report on how the access to each site conformed with health & safety requirements, thus ensuring the safety of maintenance staff accessing site in future. This involvement of everyone from the beginning helped produce a joined up approach between ecology and maintenance:
A SINGLE POINT SOLUTION!

Comprehensive Reports

On completion of the works, BBMMJV were not only given the complete 'shape file' for upload into HADDMS but were also issued with an A1 sized OS based drawing, detailing not just the aerial layout of the pond but also a selection of site photos and comments invaluable to future visiting engineers!

The Key to Success...

BBMMJV's Strategy Manager, Ian Kennard said: **"Key to the success of this project was the excellent working relationship between the two parties. This enabled Carnell to fully understand the requirements of BBMMJV's environmental and operational teams."**

Additional Services

Flood-Risk Surveys

At-risk areas are investigated to calculate the capacity of the drainage network. The impacts of varying degrees of storm events are modelled, and solutions provided to mitigate risks.

Flooding Hot-Spots

Areas prone to flooding during periods of heavy rain are surveyed to discover what is causing the flood. Methods to rectify the situation are provided.

Outfall Surveys

Carnell locate the outfall of the piped drainage network and record its position, capacity and condition. This assessment helps to generate emergency spillage plans.

Validation Surveys

Many old drainage records have been digitised to enable upload onto the HADDMS database. Carnell will take these digitised drawings (shapefiles) to site and verify their accuracy to the new standards.

