NOTE TO FILE

JBA Project Code	2012s6108
Contract	Danvm Drainage Commissioners BAP Implementation
Client	Danvm Drainage Commissioners
Date	October 2014
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Subject	BAP Implementation 2014-15 – Water Vole Surveys

1.1 Biodiversity Action Plan (BAP) Implementation – Water Vole Surveys (BAP Action 15.3)

As part of the Danvm Drainage Commissioners Biodiversity Action Plan implementation, Water Vole surveys were conducted on selected drains within the IDB district, using the methodology outlined in Section 1.2.

The five drains that have been surveyed as part of the BAP 2014-15 implementation are:

- Engine Dike
- Fowler Bridge Drain
- Kellington Drain
- Kellington Lane Drain
- Woodholmes Drain

1.2 Methodology

1.2.1 Water Vole Survey

The standard field survey methodology for Water Voles outlined in Strachan, Moorhouse and Gelling (2012) was followed. All field signs along the surveyed watercourses were recorded. The most important, diagnostic field sign for Water Voles is the presence of latrine sites. These are locations repeatedly used by Water Voles to deposit their droppings, often in prominent locations along the bank. Water Vole droppings are generally round-ended, 8-10mm in length, 4-5 mm in width and dark green to black in colour.

Other important field signs are the presence of burrows, feeding sites and footprints. Such features provide evidence of Water Vole presence and are useful supporting evidence to latrine sites; however, they are of limited value on their own.

The survey was undertaken from the top of the watercourse banks, continually examining the toes of both banks below for field signs. Upon sighting a potential latrine site, burrow or footprint the banks were descended to obtain a better point of observation.

1.2.2 Other Species

Evidence of any other protected, notable or non-native invasive species was also noted during the survey.

1.3 Results

1.3.1 Engine Dike (14/9/14)

Watercourse Description

The eastern extent of the watercourse is heavily shaded by hedgerows, comprising Hawthorn *Crataegus monogyna* and some Rose *Rosa sp.* Visibility into the drain at this location is poor and the channel appears to be heavily vegetated. The majority of the drain surveyed contained extensive in-channel vegetation, including Reed Canary Grass *Phalaris arundinacea* and Duckweed *Lemna minor*. Along the banks scrub and trees, including Hawthorn and Oak *Quercus robur* are present, in addition to tall ruderal vegetation dominating the banks.

Figure 1: Engine Dike

Water Vole

No Water Vole signs were observed during the survey.

1.3.2 Fowler Bridge Drain (14/8/14)

Watercourse Description

The drain intersects arable fields and has relatively steep sided banks. The channel contained little water at the time of the survey. The banks consist of ruderal vegetation, including Common Nettle *Urtica dioica*, however the banks had recently been flail mowed at the time of the survey.

Figure 2: Fowler Bridge Drain

Water Vole

No Water Vole signs were observed during the survey.

1.3.3 Kellington Drain (13/8/14)

Watercourse Description

The majority of the channel that was surveyed was heavily shaded by bankside vegetation. At the northern end of the drain scrub and tall ruderal species, including Bracken *Pteridium sp.*, Bramble *Rubus fruticosus*, Common Nettle and Great Willowherb *Epilobium hirsutum* dominate the banks. The section of drain that runs along the west of Kellington Lane is partially shaded by a Hawthorn and Elder *Sambucus nigra* hedgerow and is dry in parts. Other species that are present along the banks at this location include

Bindweed and Bramble. At the southernmost extent of the drain the banks had been flail mowed.

Figure 3: Kellington Drain

Water Vole

No Water Vole signs were observed during the survey; however, the heavily shaded nature of the drain obstructed view of the channel. The section of the drain at the most southern extent offers good burrowing opportunities for Water Vole, however the majority of the drain is considered suboptimal for this species.

Non-native Species

Himalayan Balsam *Impatiens glandulifera* is present on the banks at approximately OS grid reference SE 56079 24134 and SE 55700 23218.

1.3.4 Kellington Lane Drain (13/8/14)

Watercourse Description

The northern extent of the drain, north of Roall Lane, is heavily vegetated with Reedmace *Typha latifolia* present in the channel. The drain to the south of Roall Lane is also choked with vegetation and the banks are dominated with scrub and ruderal species including Great Willowherb, Bramble, Bindweed, Thistles *Cirsium sp.* and Hogweed *Heracleum sphondylium*. Towards the southern extent of the drain, the banks remain dominated with tall ruderal species and partially shaded by scrub comprising Willow *Salix sp.*. Himalayan Balsam was present along the length of the drain, particularly south of Roall Lane.

Figure 4: Kellington Lane Drain

Water Vole

No Water Vole signs were observed during the survey; however, the heavily shaded nature of the drain obstructed view of the channel.

Non-native Species

Himalayan Balsam *Impatiens glandulifera* is frequent along the banks of the drain south of Roall Lane.

1.3.5 Woodholmes Drain (13/8/14)

Watercourse Description

The majority of the drain intersects arable fields. Tall ruderal species were present on the banks, including False Oat-grass *Arrhenatherum elatius*, Common Nettle and Great Willowherb, however, most of the bankside vegetation had been recently cut. At the southern extent of the drain, that is adjacent to Sudforth Lane, the drain is heavily shaded by vegetation, including Bindweed, Bramble, Common Nettle and Himalayan Balsam.

Figure 5: Woodholmes Drain

Water Vole

Water Vole activity was recorded along the drain with burrows and footprints observed. Burrows were present at approximately SE 52300 24886, SE 52240 24828 and footprints were recorded at approximately SE 52301 24641.

Figure 6: Water Vole footprints

Non-native Species

Himalayan Balsam is present at SE 53089 23994.