

**DAVID CLEMENTS ECOLOGY LTD**

**LAND AT HERBERT ROAD NEWPORT  
OTTER MITIGATION STRATEGY**

**MARCH 2017**

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<b>Version No./Stage</b>	V2	Amended 16.02.2017	
	V3	Amended 20.03.2017	

## 1.0 INTRODUCTION

- 1.1 This report has been prepared by David Clements Ecology Ltd (DCE) on the instructions of Asbri Planning, on behalf of Keepmoat, and refers to land off Herbert Road, Newport (ST 31736 8933).
- 1.2 The western boundary of the site lies adjacent to the River Usk which is the most important feature on the site being a Special Area of Conservation (SAC); a public footpath runs along this boundary. The eastern boundary lies adjacent to Herbert Road and the railway line, the southern boundary lies adjacent to housing and the northern boundary lies adjacent to Glan Usk Primary School. Habitats within the site include grassland, scrub and trees, a wet ditch and reed beds.
- 1.3 Planning permission (Ref 13/1279) has been granted for the creation of 251 dwellings within the site boundary. Condition 5 of the planning permission requires an otter mitigation strategy be designed for the site and agreed with the LPA.

### *Condition 5 Implementation of Offsite Otter Mitigation Area*

*Prior to the commencement of any development on the site details of the offsite otter mitigation areas outlined at bullet point 3 of Paragraph 7.120 of the 'Addendum to Environmental Statement – Land South of Glan Usk, Newport' (April 2014) shall be provided to the Council. The scheme shall include details of a future maintenance programme both for the short term (5 years) and longer term (10 years). Following the Council's written agreement the approved details shall be implemented fully as approved prior to the commencement of any other works within 10m of the top of the river bank unless otherwise agreed in writing.*

*Reason: to protect the conservation objectives of the River Usk SAC, namely otters.*

- 1.4 A suite of ecological surveys, including otter surveys, of the site were completed during 2012 and 2013 by Sturgess Ecology (Sturgess Ecology, 2013) and presented in a Chapter 7 of the Environmental Statement. The otter surveys highlighted that the site has limited potential for undisturbed resting places due to disturbance by dogs and humans and it is thought likely otters pass by the site via the river or lower bank. As all habitats within the site will be lost as a consequence of the proposed development, it has been agreed with the LPA that off-site habitat enhancement within the SAC margins, including the siting of undisturbed resting areas and an artificial holt will be implemented.
- 1.5 It is a requirement that the mitigation scheme be implemented before works commence on the site.
- 1.6 Due to the time lapse since the original ecological surveys (2013) the site was visited by Vicky Hannaford and Jonathan Lee from David Clements Ecology Ltd on 25<sup>th</sup> January 2017 to assess the current condition of the habitats, particularly along the river bank. The site was also visited on February 2<sup>nd</sup> 2017, this time by Vicky Hannaford, Dylan Hammett and Thomas James from Keepmoat and Katie Godfrey, County Ecologist for

Newport CC, the purpose of this visit was to highlight a suitable area for the otter mitigation to be implemented.

## 2.0 STRATEGY

### *Off-site habitat enhancement*

- 2.1. The area highlighted for the off-site habitat enhancement lies along the riverbank between the north of the site and the M4 bridge, see Plan 1. A Phase 1 habitat survey of the site was carried out by Sturgess Ecology during 2013 and is included in the Environmental Statement, Appendix 7.4 (Asbri Planning Ltd, 2014). The site was subject to a walkover survey on January 25th 2017 by David Clements Ecology Ltd, the purpose of the visit being to assess the habitats currently present on site and compare them to those reported in 2013. The outcome of this visit determined there had been no significant changes to the habitats in the Phase 1 area of the site since surveys carried out in 2013 by Sturgess Ecology. Habitats include dense and scattered bramble scrub, scattered trees, reeds and large stands of Japanese knotweed (*Fallopia japonica*). These habitats have some potential to provide suitable resting places for otters, however due to current high levels of disturbance by dogs and humans it is thought unlikely otters will use them in the present situation. Otters, a species listed on Annex II of the EC Habitats Directives, are one of the primary reasons for the designation of the River Usk as a SAC and as such any improvement to the habitat in respect of otters will protect the conservation objectives of the River Usk. As a European Protected Species, otters and their resting places, such as holts and couches, are afforded the highest level of statutory protection in the UK.

### *Induction*

- 2.2. Prior to works commencing on the off-site habitat enhancement, all contractors will be provided with a site induction outlining the protected status of otters and the River Usk SAC. Site personnel will also be issued with the contact details of an appropriately qualified ecologist who will be available on an 'on-call' basis at any time when such a person is not actually present on site. A survey of the area where work is to be carried out will be undertaken immediately prior to works commencing, to ensure no otters will be disturbed during this time.

### *Installation of fencing*

- 2.3. Pre-construction mitigation measures aim to create undisturbed areas on the riverbank in order to provide suitable resting areas for otters. This will be achieved by the provision of mesh weld dog proof fencing, 1.5m high, 90m long with two 15m returns to the river. In order to create otter proof fencing, a 300mm return at the top of the fence angled at 30 degrees towards the river will also be implemented, see Plan 2 Mitigation Details for location and design. The fencing will be situated within the scrub approximately 3m from the edge of the grassland. Installation will be achieved using hand tools only with the posts being driven into the ground rather than using concrete to avoid contamination of the River Usk. The bay will be installed within 10m of the river bank, however any construction within 8 metres of the bank will need NRW consent.

### *Artificial otter holt*

- 2.4 The building of an artificial otter holt is also included in the pre-construction mitigation. The holt will be sited within the fenced off area of the river bank (see 2.2 above) and be situated above the highest winter flood level. The holt will be supplied in kit form (or ready built), made from recycled plastic and have two entrances and a ventilation pipe. Details of dimensions and suppliers of the artificial holt can be found in Appendix 1. The holt will be built underground and covered in brash making it as unobtrusive as possible, with the installation carried out using hand tools only. This particular artificial of holt has been designed in conjunction with Surrey Wildlife Trust and has featured on BBC Springwatch and Countryfile (<https://www.filcris.co.uk/product/otter-holt-kitblack-1200-x-830-x-380-otterholt>).
- 2.5 The services of an appropriately qualified ecologist will be available to assist as required throughout the off-site enhancement operations, and will be available to attend the site at short notice on an ‘on-call’ basis as required. If at any time an otter holt is found during works all work must stop and a licence obtained from Natural Resources Wales.

### *Maintenance of Holt and Fencing*

- 2.6 A yearly inspection of the holt will be carried out over 10 years ensuring the entrances and ventilation pipe are kept clear of vegetation. Any vegetation blocking the holes will be cleared. Fencing used to create the undisturbed area will also be inspected on a yearly basis. All inspections and relevant maintenance measures will be carried out by Keepmoat Regeneration Ltd up until December 2020, thereafter the annual inspections/maintenance will be carried out by Charter Housing Association.

### *2.7 Habitat Enhancement*

Within the northern area of the otter mitigation zone there is a stand of Japanese knotweed which will be removed by a specialist contractor as recommended by Keepmoat Regeneration Ltd. After eradication of the knotweed within this area, the gaps are to be replanted with thorny trees and shrubs e.g. blackthorn and hawthorn to provide suitable resting places for otter.

### *Other Species Measures*

- 2.8 Any works affecting hedgerows and scrub (i.e. felling, clearance or lopping etc.) will be undertaken on the site, ideally during the winter months. Any such works should avoid the main bird nesting season, which runs approximately from March to August inclusive. Alternatively, any works which must necessarily be carried out during this period will be immediately preceded by a survey to ensure that no nesting birds are present, and any which are present will be allowed to complete their nesting cycle unmolested.
- 2.9 In the event that nesting birds are discovered or suspected anywhere on the site at any time, all work in the immediate area will cease immediately and the advice of the Supervising Ecologist will be sought (in addition to trees, hedgerows and scrub, this can include grassland, bramble beds and buildings). The ‘immediate area’ will include any

occupied tree in its entirety, and any other habitats for an area of at least 5m radius around the find-site. The affected area will be clearly demarcated on the ground (e.g. by means of striped bunting) and made off-limits to all site personnel.

### 3.0 REFERENCES

**Sturgess, Ecology (2013)** *Land off Herbert Road, Newport, Environmental Statement, Chapter 7* Unpublished Report.

**Sturgess, Ecology (2013)** *Land off Herbert Road, Newport, Environmental Statement, Appendix 7.4* Unpublished Report.

<https://www.filcris.co.uk/product/otter-holt-kitblack-1200-x-830-x-380-otterholt>

[http://www.otterspecialistgroup.org/Library/Papers/Building\\_a\\_Holt\\_from\\_Recycled\\_Plastic\\_2\\_Low\\_DPI.pdf](http://www.otterspecialistgroup.org/Library/Papers/Building_a_Holt_from_Recycled_Plastic_2_Low_DPI.pdf)

**APPENDIX 1: DETAILS OF ARTIFICIAL OTTER HOLT**



## Building a Holt from Recycled Plastic

### Introduction

The otter needs up to 20 safe lying-up sites within its territory for resting during the day. The building of artificial holts by local conservation groups is a useful way to compensate for the loss of natural cover, which has resulted from land drainage, bankside clearance, river engineering and highway schemes plus, of course, riverside housing development.

Artificial holts should be located where there is little natural cover, since an otter will probably resting sites in preference to man made ones. The holt should be built as close to the river as possible, with a pipe entrance leading to the water's edge if necessary, and where there will be little human disturbance.

The otter is a solitary animal, except when a female has her cubs, so a large structure is not essential. This design creates a secluded "room" that is 2' x 2' x 18", reached by a series of internal tunnels, all within a 4' x 3' box. It is a permanent, strong, maintenance free home that is large enough to act as a nursery but small enough to create the intimate conditions preferred by the otter.

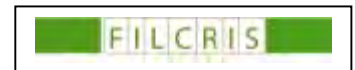
### Location

Provided the site has minimal disturbance from humans, and particularly dogs, the holt can be built anywhere: along rivers, streams, lakes and ponds, in meanders, field corners, riverside woodlands, islands and stream confluences. It should be built as close to the water's edge as practical and preferably within the 8-metre zone. It is better if an external pipe entrance connects the holt to the river's edge at normal water level so that the animal can enter unobtrusively direct from the river. **Any construction within 8 metres of the bank on main rivers will need Environment Agency consent.**

### Tools required

- 2 Battery power drills with 5mm drill bits & size 3 pozidrive bits
- 1 Breaker bar (useful if the ground is very hard)
- 1 Mell or sledgehammer
- 1 Spirit level at least 600mm (2 ft) long
- 1 Corner post level
- 1 Tape measure
- 1 Wood saw
- 1 Marker pen
- 1 Garden spade & mattock (if the ground needs levelling or the holt is to be built underground)

This holt was designed in consultation with Filcris Ltd, The Old Fire Station, Broadway, Bourn, Cambridge, CB3 7TE  
Tel: 01954-718 327



[www.filcris.co.uk](http://www.filcris.co.uk)  
[sales@filcris.co.uk](mailto:sales@filcris.co.uk)

They are familiar with the requirements and all the materials needed to build the basic holt are supplied on the pallet including the template and screws, and everything is cut to size.

**If an external tunnel is to be fitted this should have been arranged with Filcris beforehand as you will need extra upright posts to fix the tunnel to the holt and to stake it along its length.**

If a tunnel is being fitted then plastic land-drain pipe to a minimum diameter of 260mm should be used. **This is a separate item not supplied with the holt.** Such land-drain pipe can be obtained from Polypipe: [www.polypipecivils.com](http://www.polypipecivils.com) or other similar manufacturers.

**A detailed plan is shown on the last page of this leaflet.**

## Preparation

1) If an external tunnel is to be fitted then a short length of the extra post material should be cut as below:



2) Select a suitable site for the holt that and make it as level as possible with the roof on the ground.



You may have to dig soil away to achieve this.

## Construction

1) Stretch the template out on the ground and peg firmly in place.



2) Hammer in the posts, using the holes in the template, to a height of 43cm (17"), remove the template and level the posts accurately using the spirit level and corner post level.

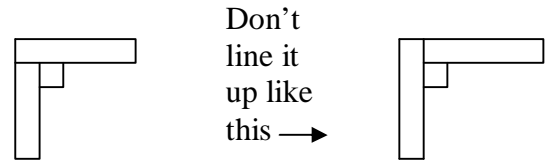


3) Fit the inner walls (there is not room to operate the drills with the outer walls in place). It does not matter whether the tongue or the groove in the plank is uppermost as long as all the walls are the

same. There is a smooth and rough side to the planks. The smooth side should face inwards.



Drill and screw the top row first, locating the planks 10mm down from the top of the posts. This is to make a gap which will create a little airflow, reducing condensation forming inside the holt. Slide the lower planks onto the upper ones locking them using the tongue & groove slots and screw them in. Any gaps at the bottom can now be made up with soil. **IT IS IMPORTANT TO FOLLOW THE PLAN EXACTLY.** If the plan says that a corner lines up like this:



4) Now fit the outer walls and fill any gaps under the bottom of the walls with soil as above.

**Errors will creep in due to underground roots or stones** but any minor adjustments can be made with the saw for an accurate fit.



5) The external tunnel (if fitted) should be fixed now. Line the pipe up in place over the entrance door allowing space to fit the pipe support allowing clearance above the entrance hole, and draw the shape round the pipe with the marker pen. Get an assistant to hold the support in place. **MAKE SURE THE DRILL BIT CANNOT GO THROUGH THE SUPPORT AND INTO THE ASSISTANT'S HAND.**

6) Fit the screws. Slide the pipe over the support and drill through the pipe for the

screws. Finally fix supports to hold the pipe firmly to the ground to make the pipe as rigid as possible.



- 7) Position the roof on top of the holt. Lay the template onto the roof, lining up the corner posts with the template holes. This will enable you to locate the internal posts for their screw fixings.



- 8) The finished holt is small enough to be inconspicuous but it can be covered with brash to hide it from human interference, to improve insulation and to be more aesthetically pleasing. Soil can also be packed around the pipe entrance (if fitted) to improve stability and exclude light.



On sites where there is a risk of flooding the holt can be staked to the ground using sheep netting for extra security. **Note: Extra posts, screws and/or staples will be required for this.** If possible a few plants such as hawthorn, dogwood, and dog rose can be planted around to grow up and hide everything. Fencing off the patch of land is recommended particularly if livestock are present.

On a flat site that does not need much preparation the holt can be built in less than a day using 3 or 4 volunteers.

## Advantages

Whilst the materials may seem quite expensive, the end product is strong, totally weatherproof, provides good insulation, is difficult to vandalise and is permanent. It is reasonably light to handle during construction and needs no ongoing maintenance so that labour costs are kept to a minimum. Replacement of any brash cover can be easily done whenever the holt is monitored for otter presence. Finally, being quite small, the holt is easily made unobtrusive.

Plastic holts can be buried underground as the materials will not rot. However, more time will have to be allocated to allow for excavation for the hole and trenches for the pipework. Extra pipe will also be required for the back entrance. It would also pay to drill a hole in the roof of the sleeping chamber and insert a small ventilation pipe (about 40mm diameter) with a cranked end to prevent rain getting in. This can be disguised on the surface by covering with a bit of brash. The pipe could also be used to insert a small surveillance camera.

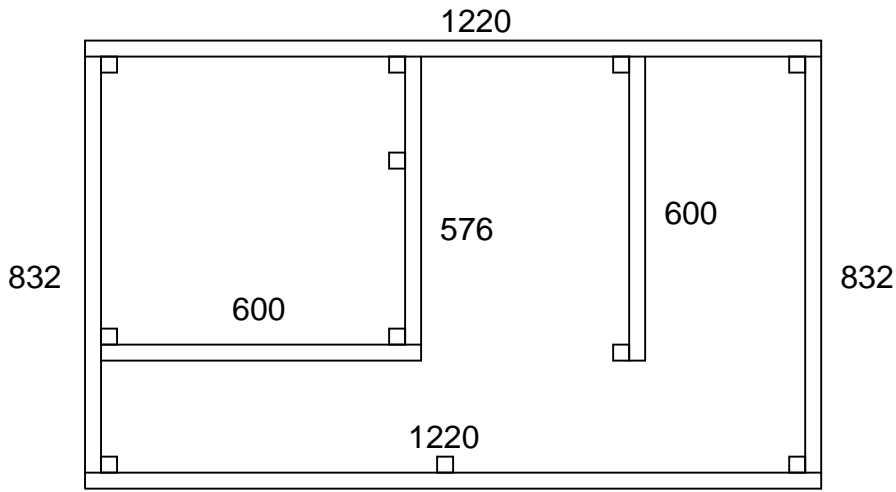
If you have any queries or comments either to improve the design of the holt or this leaflet please feel free to contact me.

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Surrey Wildlife Trust's Otters & Rivers Project is co-ordinated by the Wildlife Trust Partnership's Water for Wildlife project and is sponsored by:

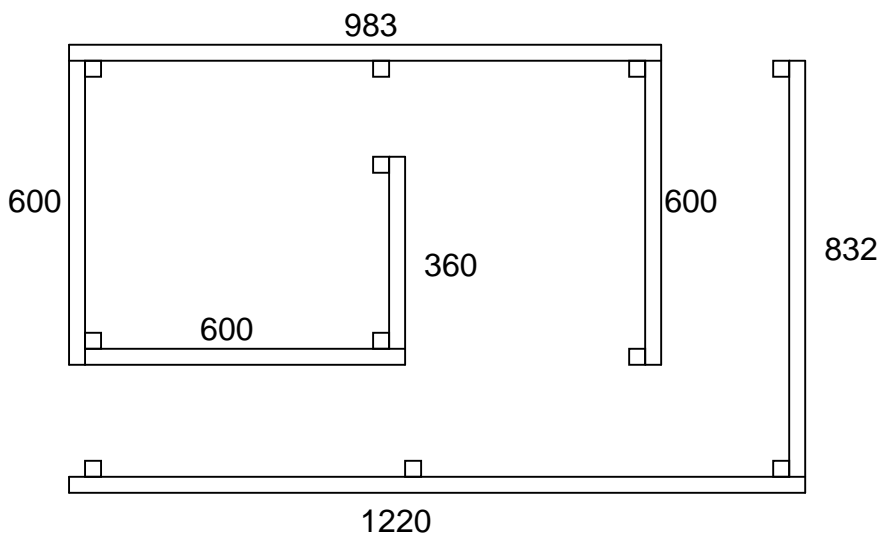
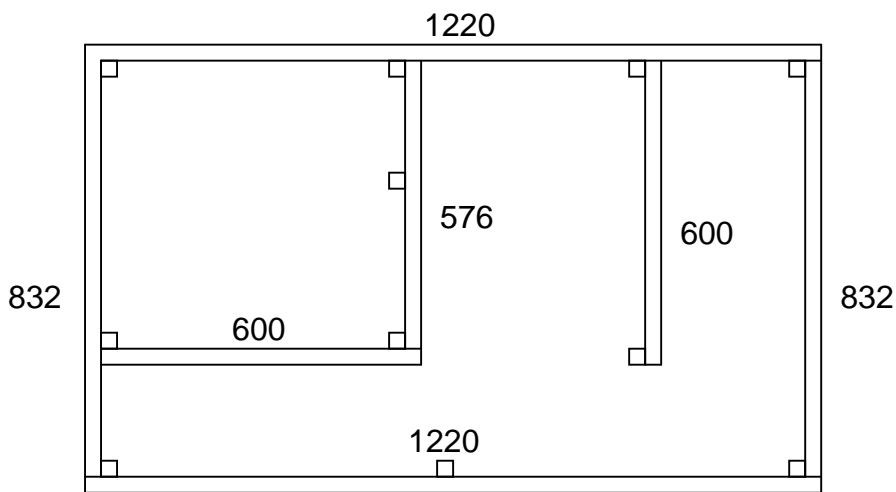


**Detailed plan for holt**



1220 x 2  
832 x 2  
600 x 2  
576 x 1

**Top Layer**



1220 x 1  
832 x 1  
600 x 3  
360 x 1  
983 x 1

**Base Layer**

Land off Herbert Road, Newport  
Otter Mitigation Strategy

Plan 1: Location of Off-Site Habitat Enhancement

DCE 908

NTS

February 2017



**KEY**

— Site Boundary

— Off Site Habitat Enhancement

