



**Land at Blewgarth, The Warren, Caversham,
Reading, Berkshire RG4 7TH**

Ecological Impact Statement

September 2021

on behalf of Tom Luke

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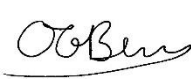
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1 Background

Windrush Ecology Ltd has been commissioned to provide an ecological impact statement for the proposed development at the Land at Blewgarth, The Warren, Caversham, Reading, Berkshire RG4 7TH (referred to as the 'site').

Windrush Ecology Ltd previously undertook a Preliminary Ecological Appraisal in October 2020 and provided a Preliminary Ecology Appraisal (report) which was submitted by the application as part of the planning application. The appraisal concluded that the site has negligible ecological value in its current condition. The appraisal also provided a number of recommendations which the applicant has incorporated into the planning proposal.

Windrush Ecology has subsequently evaluated the proposed development plans (as available on the RBC Planning Portal) in order to evaluate the likely ecological impact of the proposed development in order to produce this statement.

2 Summary of Proposed Development

The proposed redevelopment of the property comprises:

1. Demolition of the three existing structures including summer house, shed and former boat house.
2. Erection of a summer house, approximately 36 sqm in footprint, which incorporates a large void area beneath the building to provide flood water storage during flood events.
3. Excavation of the current concrete slipway to the river, replacing with a wet dock, approximately 1.2 metres in depth, 33sqm in footprint, with a boat house built over.
4. Hard landscaping including replacement retaining wall; reduction/removal of soil levels south of the retaining wall to create an area of flat ground, providing increased flood storage capacity and; the removal of soil, dead tree stumps and other materials from the east side of the existing mooring, approximately 1.8 metres in width.
5. Removal and reinstatement of a privet hedge to create an entrance area
6. Soft landscaping including:
 - a. Sowing of wildflowers across the sloped bank, approximately 100 sqm in area
 - b. Planting of hedging to replace existing fencing on the south-east boundary
 - c. Installation of a coir roll and planting of Common Reeds to the south-east corner within the coir roll and on the bank
 - d. Planting of two new trees (Alder and Golden Aspen)

2.1 Relevant Planning Policies

The following planning policies and frameworks have been identified as relevant to this proposal:

- Paragraph 175 of the National Planning Policy Framework (NPPF). These recognise that the planning system should conserve and enhance the environment by minimising impacts on and providing net gains for biodiversity.
- Policies EN11 'Waterspaces' and EN12 'Biodiversity and the Green Network' in the Reading Borough Local Plan, adopted November 2019.
 - Policy EN11 includes:

Where development in the vicinity of watercourses is acceptable, it will:

 - Be set at least ten metres back from the watercourse wherever practicable and appropriate to protect its biodiversity significance;
 - Improve the quality of watercourse environment through protecting and enhancing habitats and ensuring that habitat creation is balanced with access and urban uses;

- Policy EN12 includes:
 - On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible. Development should: Protect and wherever possible enhance features of biodiversity interest on and adjacent to the application site, incorporating and integrating them into development proposals wherever practicable; and
 - Provide new tree planting, wildlife friendly landscaping and ecological enhancements (such as wildlife ponds, bird and bat boxes) wherever practicable.

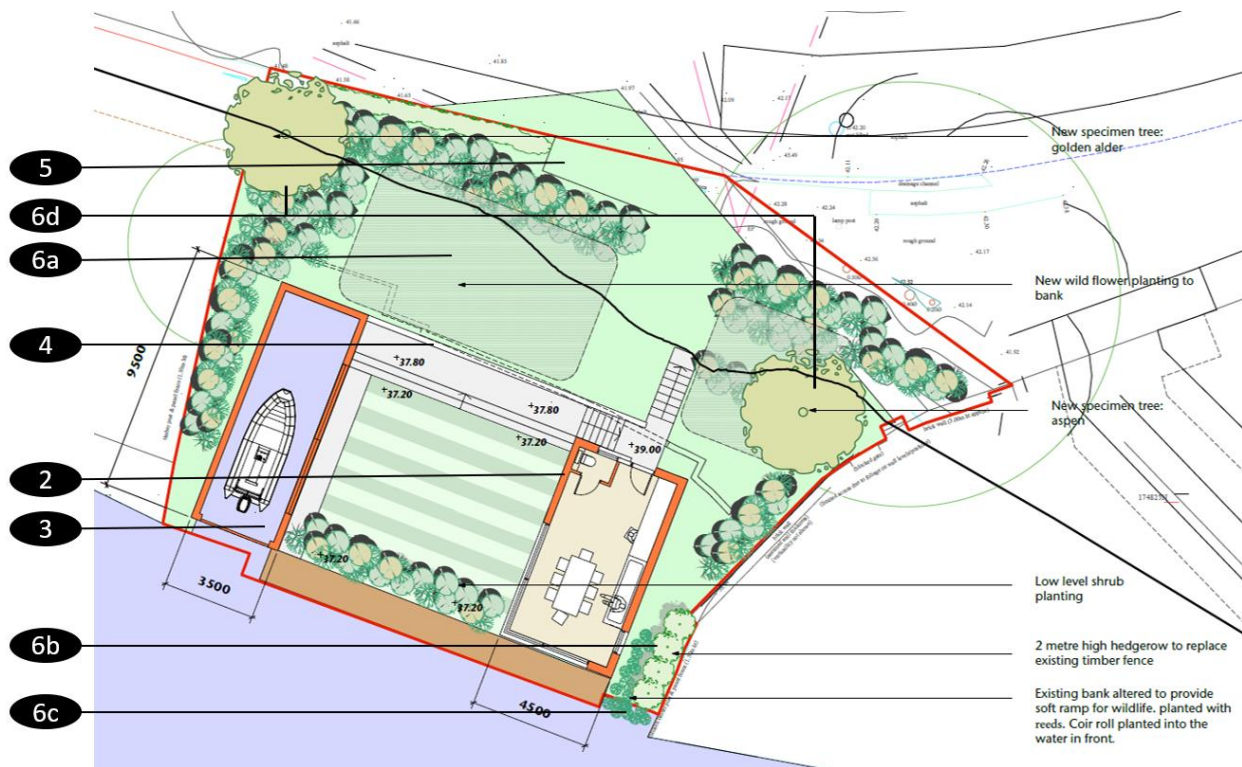


Figure 1. Plan of proposals.

3 Impact Assessment

3.1 Demolition and Construction Works

The demolition and construction works will take place within close proximity to the River Thames, which is a priority habitat for aquatic life. There is a risk that construction works could create dust, debris and run-off which has the potential to enter the water course and cause harm.

All appropriate measures and construction methods should be taken to minimise the likelihood of any debris or materials entering the river.

The existence of the concrete revetment on the bank offers an advantage in reducing the likelihood of run-off entering the water course.

A Flood Risk Activity Permit is likely to be required for the development of this site and should be obtained, if applicable, before construction begins and any conditions of the permit should be adhered to.

3.2 Impact of New Structures

3.2.1 Boathouse and Wet Dock

The replacement boathouse is to be located in approximately the same position as the current dilapidated boathouse. The current boathouse and slipway contain loose materials and debris and poses a risk of further partial or full collapse leading to release of debris into and contamination of the river.

The replacement boathouse offers a minor improvement to the existing, from an ecology standpoint, as it is less likely to cause contamination of the river through collapsing and release of debris.

The creation of a wet dock under the boathouse will result in the removal of concrete and other debris and materials from the water course and river margin. The wet dock will provide a habitat for aquatic plants and invertebrates and a refuge for fish. The creation of the wet dock and boat house will therefore create a net positive impact to the ecology at the river margin.

3.2.2 Summer House

The replacement summer house is proposed to be installed approximately 1.5 metres from the river's edge. Policy EN11 in the Reading Borough Local Plan states that developments should be set back 10 metres from the river's edge wherever practicable and appropriate to protect its biodiversity significance.

However, as the site is already developed up-to the river's edge, with the existence of a concrete revetment (mooring), the introduction of a new structure is unlikely to have any negative impact to the ecology or biodiversity significance of the site or river.

The building is south-facing and will not cast any shadow into the water at any time of day nor at any time of the year. There are no external lights proposed facing the river and therefore the impact of light pollution into the river will be negligible.

The large flood void area underneath the building provides a potential habitat for small mammals.

The proposed development of the summer house in its proposed location is unlikely to have any negative ecological impact on the site or any impact to the biodiversity of the river. It is not practical nor appropriate to locate the new buildings 10 metres from the river edge, the development is therefore considered compliant with policy EN11.

3.3 Landscaping

3.3.1 Creation of Reed Bed

The creation of a reed-bed area on the south-east of the site will be implemented through the removal of materials at the water's edge, including two tree stumps, soil and other debris, in addition to the addition of a coir roll in the river. The area and coir roll will be planted with Common Reeds. This reed area offers a habitat for swans, water vole, otters, fish and also provides a method of ingress and egress from the water.

3.3.2 Wildflower Planting

The planting of native wildflowers, covering an area of c.100sqm will provide pollinators and insects with food from leaves, pollen, nectar, shelter and places to breed. This is expected to provide an enhancement to the ecosystem, including encouraging insectivores such as frogs, toads and bats to the site. The wildflowers will also reduce soil erosion and increase the soil quality.

3.3.3 Trees and Shrubs

Two new trees (Aspen and Golden Alder) will be installed on the development and will provide a habitat for birds.

A variety of dwarf shrubs will be planted across the site, at the edge of the river, and around the site boundary, providing a habitat for insects.

Overall, the proposed landscaping will make a material enhancement to the ecology of the site, including at the river margin.

3.4 Potential Additional Measures

3.4.1 Removal of Hard-standing

It is noted that the removal of some or all of the existing concrete hard-standing (mooring) and replacing it with a soft engineered bank could add additional ecological value. However, the property is used as a leisure plot and a boat mooring and a hardstanding is an appropriate feature for the properties intended use.

It is also noted for context that the property is located on a stretch of river which sees a high volume of river traffic that is likely to cause bank erosion. Both sides of the riverbank, in 1km in both directions upstream and downstream from the site, are protected by a hard bank (either concrete or sheet piling), including the south bank, which is maintained by the Environment Agency, which is protected by a concrete bag embankment. In areas where this concrete bag embankment has failed, substantial erosion has occurred.

A soft engineered solution could add additional ecological value at the river margin, incremental to the enhancements included, however, is likely to lead to bank erosion and diminish the utility of the property in its intended purpose as a leisure plot.

4 Conclusions

- There are no anticipated ecology impacts during the construction phase, provided that appropriate measures are taken during the construction process; that a Flood Risk Activity Permit is obtained from the Environment Agency and that any conditions of the permit are adhered to.
- The proposed structures being developed on the site are unlikely to cause any adverse effects to the ecology or biodiversity of the site nor the river.
- The proposed planting scheme of wildflowers, trees and shrubs will have a positive impact on the ecology of the site and will create a net positive effect on biodiversity.
- The proposed installation of a wet dock and reed bed area (to the west and east of the mooring, respectively) will have a positive impact to the ecology at the river margin.
- There is an opportunity to remove some or all of the existing concrete mooring and extending the proposed reed bed area, however, considering the context and intended use of this site, this is unlikely to be an appropriate measure. The other measures already ensure a positive enhancement to the ecology of the site and river margin.

The National Planning Policy Framework and RBC's Policies EN11 and EN12 state that developments should conserve and enhance the biodiversity of the site.

Overall, the conclusion is that the proposed redevelopment will achieve a net positive impact to the ecology value and biodiversity of the site, including at the river margin.

5 Responses to Environment Agency Questions (received 16 August 2021)

This section details the responses of the client, Tom Luke, to the Environment Agency Questions (received 16 August 2021).

1. Confirmation of the current nature of the 1.8m stretch of riverbank at the eastern end of the property. Is it currently a natural bank?

Yes, this section of land is currently natural, however, it has a low ecological value. It comprises two tree stumps with ivy growth on a soil embankment. The soil is contaminated with pieces of concrete and hardcore. There are large deposits of hardcore and concrete in the water in front, at a depth of 60cm. See Figure 1.

2. Details of the proposed enhancements to this 1.8m width of bank. What seed mix would be used and what native plants would be in the coir rolls?

The proposal is to restore this area to a reed bed planted with Common Reeds:

The hardcore and other debris on the riverbed shall be removed, up-to 1.5 metres from the bank of the river and replaced with sand or other suitable natural material. Coir roll(s) will be added onto the riverbed and planted with Common Reeds.

The tree stumps shall be removed from the bank. This area will be planted with Common Reeds and grasses.

3. Details of the other ecological enhancements including some potentially off-site, that the applicant has offered to carry out. These should, as far as possible, be enhancements to river corridor habitats.

The following is a list of the proposed ecological enhancements to the site.

1. As noted above: Installation of a coir roll(s) planted with Common Reeds; removal of tree stumps and bank softening to the east of the mooring. This will provide a new river corridor habitat.
2. Removal of existing concrete slipway (figure 1) to create a wet dock c.27m² footprint. Offers a new area for aquatic plants, invertebrates and a shelter for fish. Also increases flood storage area by c.50 cubic metres. This will provide a new river corridor habitat.
3. Planting of mixed wildflowers covering an area of approximately 100m² on the south-facing slopes.
The mix of wildflowers will include: Paper Daisy, Pheasant Eye, Pot Marigold, Cornflower, Dwarf Morning Glory, Corn Marigold, Evening Primrose, Forget-Me-Not, Four o' Clock, California Poppy, Baby's Breath, Chamomile Daisy, Love-in-a-Mist, Corn Poppy, Corncockle, Golden Tickseed, Blue Lupin, Borage, Purple Tansy, Blanket Flower, Clarkia, Cosmos Mixed Clovers, Marsh Mallow, Clovers, Yellow Rattle, Corn Marigold, Dahlia.
The applicant is willing to accept alternative proposals of seed mixes / species.
4. Planting of two new trees (Golden Alder and Aspen) each installed with a minimum stock height of 2 metres, as shown in 352.P.14-Tree Plan.
5. Planting of dwarf evergreen shrubs along the length of the bank between the two new buildings (c.10 metre length) as shown in 352.P.02-15B Proposed Floor Plan Rev B
6. Addition of 2 new bird boxes and 1 bat box to the buildings.

6 Appendix 1. Figures

Figure 1: The area spanning ~1.8m to the east of the mooring, comprising a soil bank with 2 tree stumps with ivy growth.

The proposal is to remove tree stumps / dead plants and install Common Reeds in the riverside bank and also within a coir roll planted into the water directly in front, providing a new river corridor habitat.



Figure 2: large deposits of hardcore and concrete at the riverbed

Proposal is to remove and replace with sand or other natural substrate.



Figure 3: Proposed enhancements to area east of the hardstanding

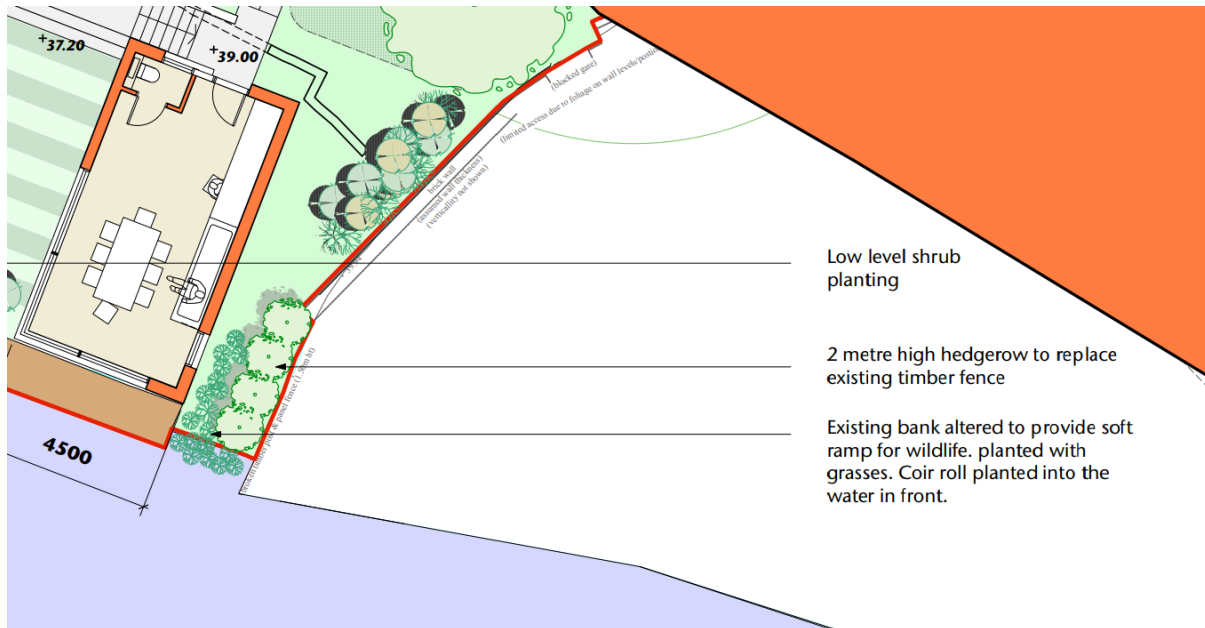


Figure 3: Current boathouse / concrete slipway comprising a broken concrete base.

Proposal is for this to be removed and replaced with a wet dock to provide a habitat for aquatic plants, invertebrates and a shelter for fish.



Figure 4: Tree plan showing the locations of two new trees to be planted.



Figure 5: Proposed floor plan highlighting locations of proposed ecological enhancements

