Mark Russell

Ethical Partnership

Via email only to: mark@ethicalpartnership.co.uk

Our Ref: ECN19 115

Date: 24th November 2021

Dear Mark,

Re: Revised Water Vole mitigation scheme on the river Don, North Road, West Boldon, Tyne and Wear.

Thank you for asking EcoNorth to provide a revision the existing mitigation scheme with particular emphasis on water voles for the above site. This letter-style report seeks to provide written confirmation that EcoNorth carried out a revision of the existing mitigation scheme embedded with the West Boldon PEA and PBRA final report dated February 2020. The site is centred on North Road, near West Boldon in Tyne and Wear, NZ 34785 61189. The revision was completed by Kevin O'Hara, a highly knowledgeable and nationally experienced water vole expert. The revision has been undertaken to advance planned development works on site and enhance the location for water voles known to be present on the adjacent river Don.

In context, a residential development is proposed for the site which is currently used as pasture for horses. At the time of writing, the plan in Figure 2 is the current layout and footprint of the proposed development. The area in blue is retained as a 10m buffer along the River Don, and the area outlined in red is the development footprint. No drainage works are proposed which would directly or indirectly affect the watercourse.

This report is designed to highlight key ecological enhancements that can be made on top of those already recommended in the PEA and PBRA reports to improve the watercourse for water voles and support the full planning application.

To give further context, records of water vole were provided from immediately adjacent to the south-western area of the site, along the River Don.

Two probable water vole burrows were noted along the bank of the River Don during the previous field surveys. Due to the survey evidence, the suitability of the River Don and adjacent habitat, and the known presence of a good population of the species along the river, it is likely that water vole will be present along the site boundary site adjacent to the river.

Figure 1 shows the development site.



Figure 2: Present Site Layout

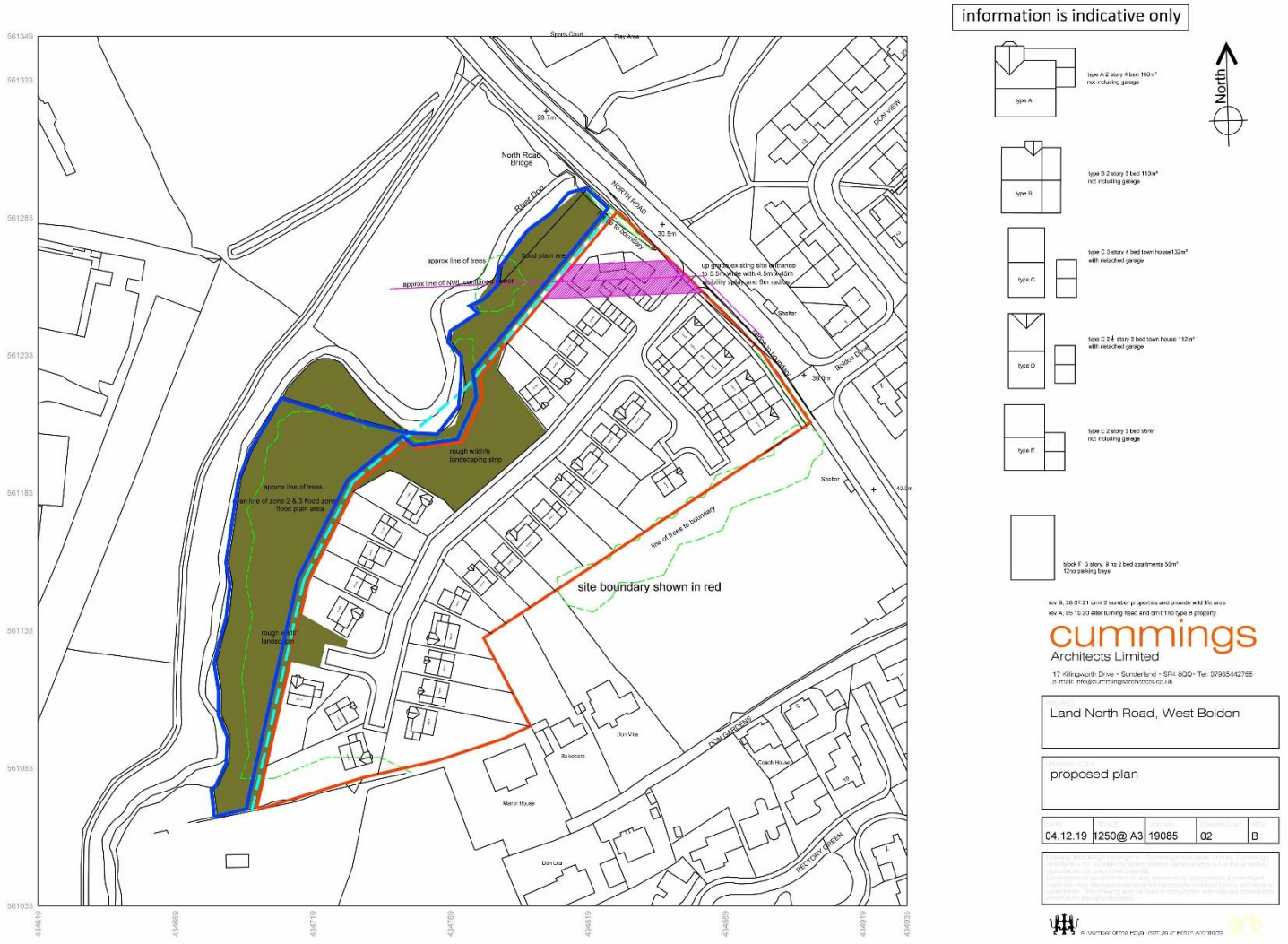


Figure 3. indicative location of enhancement works (actual detail of exact locations can be carried out at a later date from the ground)



Revised Mitigation and Compensation Strategy

The following general measures will be implemented in order to minimise the ecological impacts of the proposals, including the risk of protected species being adversely affected:

The ecological function of the river must be retained with no negative impacts, either direct or indirect, on the watercourse or adjacent habitats.

All hedgerows should be managed and or retained as outlined within this section.

The scattered trees consisting of mainly hawthorn and where overcrowding along the immediate riverbank creates to much shade preventing understory growth, may be removed, or managed in such a way as to improve the light source to the riverbank, improving the understory for foraging and burrowing water voles. If removed, then they must be replaced with locally appropriate native species on a 1:1 basis in an appropriate location on site, possibly between the housing blocks to form a new copse.

Pre-works check for nesting birds prior to works commencing if undertaken during the breeding season.

The following measures will be implemented in order to minimise the ecological impacts of the proposals, including the risk of protected species being adversely affected:

- All hedgerows will be retained and subject to an appropriate management regime throughout the lifetime of the development
- The scattered trees consisting of mainly hawthorn and where overcrowding along the immediate riverbank creates to much shade preventing understory growth, may be removed, or managed in such a way as to improve the light source to the riverbank, improving the understory for foraging and burrowing water voles. If removed, then they must be replaced with locally appropriate native species on a 1:1 basis in an appropriate location on site, possibly between the housing blocks to form a new copse.
- Any mature trees along the River Don (along the southern and northern border) will be retained
- Vegetation clearance and building works will not be undertaken during the bird nesting period (March – August inclusive) unless a checking survey by a Suitably Qualified Ecologist (SQE) has been undertaken within the five days prior, which confirms that no active nests are present. In the event a nest is identified, the SQE will implement a buffer zone around the nest into which no works will progress until the SQE confirms the nest is no longer active
- Checking surveys for badger/otter/water vole will be completed within the month prior to the start of works, to address the residual risk of such species being adversely affected by the proposals
- Tree protection measures will be implemented throughout the works period around those features to be retained and those trees which border the site to the east. This will include ensuring no materials are stockpiled or vehicles are parked within the Root Protection Zones around each tree

- No fires will be lit on site as part of the proposals
- Where any trenches/excavations greater than 0.5m deep are created these will be closed overnight where possible. Alternatively, one side will be cut at no more than a 45º angle, or a plank large enough for a person to walk up will be installed overnight to provide any wildlife which may fall in with an escape route. All such excavations will be checked for wildlife prior to the recommencement of works each morning
- No works will be undertaken between sunset and sunrise to minimise the risk of nocturnal species such as otter, badger or bats being adversely affected
- In order enhance the habitat present on site for roosting bats it is recommended that six bat boxes (Schwegler 2F or similar) are installed on-site within the new building structures or surrounding trees which will be retained as part of the development. Bat boxes can be installed on trees or buildings on site. Boxes made of woodcrete, such as Schwegler boxes are more beneficial as they are long-lasting. Integrated bat boxes are a less obtrusive and excellent addition and incorporated into all modern house builds benefiting many species.
- Gaps measuring at least 15 x 15cm will be maintained/created in the existing and any new fencing, to ensure the habitats remain permeable to a range of wildlife, such as hedgehogs.
- Artificial lighting is proven to negatively impact nocturnal species such as bats. The proposed lighting scheme will avoid any light spill onto key habitat areas which could be utilised by wildlife. A maximum of 2 lux will be allowed within these areas as stated in Guidance Note 8 Bats and Lighting (BCT, 2018). Key areas include:
    - Within 10m of the riverbank
    - Along the hedgerow on the northern and eastern border
    - Along the tree line of the north-eastern border.
- Wildlife sensitive designs are available which direct the light where needed and avoid any unnecessary light spill. The lights will use LEDs which do not emit blue light. Where possible, security lighting should use motion-sensors to reduce the light pollution when not required. For further information refer to Guidance Note 8 Bats and Lighting (BCT, 2018).
- Any trees or shrubs removed, as proposed for the scattered hawthorn trees and riverbank in the north and south of the site, will be replaced on a 1:1 basis in an appropriate location for the species requirements.
- Any brash/timber piles created will be situated in the retained areas of habitat for use as shelter by hedgehogs or other mammals. If brash/timber piles are left or are present on site, these will be checked by hand in order to determine that no hedgehogs or other mammals are sheltering within before mechanical movement.

- Given the potential for increases in visitor pressure on coastal European sites a financial contribution (£403 per residential unit) should be agreed in line with South Tyneside Supplementary Planning Document in order to mitigate potential effects on European sites (South Tyneside Council, 2018).

- Bird nest boxes can be installed on each new building or trees around the site boundaries. Integrated bird boxes are a less obtrusive and excellent addition to modern house builds benefiting species especially for House Sparrow *Passer domesticus*, Starling *Sturna vulgaris*, Swallows *Hirundo rustica* and Swifts *Apus apus*. If external boxes are used the box must be made of either Woodstone or Woodcrete as these are more durable and last longer than wooden bird boxes. The boxes must be positioned according to product guidance regarding height and aspect.

- A fence line will be installed between the housing development footprint and the retained flood plain to discourage access by residents and dog walkers.

- Due to the confirmed presence of water vole and potential presence of otter along the watercourse, no development works will be undertaken which will have a direct or indirect impact on the watercourse. In the event any works are proposed as part of the development which affect this feature, works will not be permitted until a full survey and impact assessment has been undertaken to allow a robust mitigation strategy to be devised, including whether a mitigation licence will be required from Natural England.

- No works will be undertaken within 10m of the watercourse.

- Works will proceed under the methodology outlined below in order to prevent pollution of the adjacent watercourse and SSSI further downstream:

    - Chemicals should not be used during the construction work.

    - Ensure sediment/pollution prevention control methods are in place, following current best-practice guidelines:

        - Straw bales used where hydrological connections to water bodies off site are identified.

        - No refuelling within 30m of any watercourse / waterbody.

        - Spill kits available at all times.

        - Plant nappies for all plant used on site.

        - Sediment barriers will be installed surrounding extensive excavation or vegetation clearance areas.

Maintaining and enhancing specific habitats for water voles

Whichever approach is adopted water voles will generally benefit from and occupy areas with less tree cover and more marginal vegetation. This stretch of the river Don lies within known water vole range, but its condition has deteriorated over many years due to excessive horse grazing, poaching of the river bank and other inapplicable management actions on the river, the following general measures may benefit and enhance water vole presence in the area:

- Creating steep earth banks in which the water voles can burrow; the banks are generally suitable for water voles on the river Don but would benefit from increased and appropriate planting of suitable plant species.
- Reinstating meander bends, and ponding where watercourses have previously been straightened; this is a bit aspirational as this section is actually quite good in these terms but over shading and bank erosion could be improved with soft engineering techniques that would again enhance water vole habitat
- Ensuring water is present all year round, this is not an issue at this point.
- Encouraging the dense growth of grasses and herbs on the banks and bank tops; mowing regimes should be discouraged but occasional grazing or some selective strimming may help maintain the sward type avoiding tree growth and planting.
- Creating shallow marginal areas with reeds, rushes and sedges growing in abundance at the base of both banks should be seen as the chief way to improve the river section for water voles. Instigating and using preplant coir rolls and mats in the right locations will not only benefit the water voles but help to restabilise the river banks where poaching has incurred erosion
- Creating refuge area above winter flood levels my be possible with further retraction of the housing footprint and should be explored with the planning department and the developer when possible. Such an area may double as a wader bird feeding areas for such species as snipe and woodcock
- Removing excessive tree and shrub growth along the river Don should be seen as a chief benefit to water vole expansion and enhancement. Shade reduces light and understory vegetation growth. Compensation planting can be achieved elsewhere on site or other
- Where erosion protection or bank stabilisation is required or can be implemented for enhancement (there is some need on the large U -bend mid river), the use of 'soft engineering' techniques including hazel hurdles and staked coir-fibre matts or rolls may allow water voles to continue occupying their habitat. Pre-plant them with suitable plant species and they are a great addition to the riverbank

The following habitats and features should be looked at being enhanced or created:

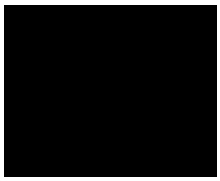
• Wildflower grassland (Germinal Seeds, mix RE1 species-rich meadow) will be created and maintained within the 10m wide buffer strip, adjacent to the banks of the river Don.

• Pockets of trees will be removed from the banks of the stream course, to facilitate and to create more open areas with native marginal vegetation, favoured by water voles. The areas to be cleared will be clearly marked up on a map. The banks in the opened up areas may need to be re-profiled to provide optimum water vole habitat, as shown in the indicative drawing accompanying. These open areas will be seeded with a wet meadow mix (Germinal seeds, mix RE3 river floodplain / water meadow) and planted with common reed *Phragmites australis* along the shelf at the toe of the

bank in pre-planted coir matts or rolls staked into the bank. The banks will be kept clear of scrub and maintained with a strim in the autumn.

Should you require any further confirmation please do not hesitate to contact me with regards any queries.

Yours sincerely



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