

Appendix 6.5 Letter Addendum to Mitigation Strategy

September 28, 2012

FAO Erica Dixon
The Vale of Glamorgan Council
Dock Office
Barry Docks
Barry
CF63 4RT

Ecological Consultants
Survey
Assessment
Design

Cardiff, Belfast & Reading

Dear Erica

**THE QUAYS, BARRY WATERFRONT
PLANNING APPLICATION 09-00946-OUT AND 09-00947-OUT**

Following receipt of your comments dated 03 August 2012 and our subsequent meeting on 17 September in relation to The Quays application, we write to provide further clarification of the issues discussed.

The purpose of the meeting held on 17 September was to discuss the comments received in relation to the submitted Ecological Mitigation documents and associated drawings, including:

- E0811601 R05 – Development Phase 1 Ecological Mitigation Strategy Rev D 13-07-12
- E0811601 R06 – Whole Site Ecological Mitigation Strategy Rev C 13-07-12
- E0811601 R07 – Ecological Management Plan Rev C 13-07-12
- E0811601 R08 – Invertebrate Management Plan Rev C 13-07-12
- 0833103-PL-GA-065 – Ecological Mitigation – Street Tree Network Rev C 13-07-12
- 0833103-PL-GA-066 – Ecological Mitigation - Brownfield Meadow Rev D 13-07-12
- 0833103-PL-GA-067 – Ecological Mitigation – Linear Park Rev D 13-07-12
- 0833103-PL-GA-068 – Ecological Mitigation – East Quay Park Rev B 13-07-12
- 0833103-PL-GA-071 – Ecological Mitigation - Bird Box Locations Rev B 13-07-12
- 0833103-PL-GA-072 – Ecological Mitigation - Retained Grassland at East Quay Park Rev B 13-07-12
- 0833103-PL-GA-073 – Ecological Mitigation - Cliff Top and Cliff Base Rev B 13-07-12

Our response set out below is based upon the points raised in your consultation response and the topics discussed at the meeting. For clarity your response/ comments are presented as italicised text, with our subsequent clarification/ comments beneath.

1.0 Non-specific comments

1.1 *The use of the word “should” throughout all documents. These documents are management plans and mitigation plans, and as such we require a commitment to such work. The documents need to be rephrased using “shall”, “will” etc to ensure commitment to the works.*

1.2 The Consortium have confirmed they are committed to undertaking the works identified within the documents and the word ‘should’ is to be read as ‘will’

Soltys Brewster Ecology
4 Stangate House
Stanwell Road
Penarth
Vale of Glamorgan
United Kingdom
CF64 2AA

T +44 (0) 29 2040 8476
F +44 (0) 29 2040 8482
enquiry@soltysbrewster.co.uk
www.soltysbrewster.com

Directors
Matthew Watts
BSc (Hons) PhD MIEEM CEnv
Gary Soltys
BSc (Hons) DipLA MI Hort CMLI
Simon Brewster
BA (Hons) DipLA CMLI

ISO 9001 + ISO 14001
CarbonNeutral Company

Registered Office:
4 Stangate House Stanwell Road
Penarth Vale of Glamorgan
United Kingdom CF64 2AA

Registration No: 5779051

Soltys Brewster Ecology is the trading name of Soltys Brewster Ecology Ltd.

throughout the documents. Elements within the strategies considered ‘desirable’ rather than ‘essential’ include:

Development Phase 1 Ecological Mitigation Strategy

- Section 5.9 – ‘Material from the existing pond is to be dredged using an excavator with a straight edged (blade) bucket and immediately transferred to the newly created pond to transfer some of the existing interest and to help speed its establishment’ – As discussed in Section 2.14 below, the transfer of material may no longer be achievable due to the presence of contaminated substrate around the existing pond.

Whole Site Mitigation Strategy

- Section 4.9 – ‘Material from the existing pond is to be dredged using an excavator with a straight edged (blade) bucket and immediately transferred to the newly created pond to transfer some of the existing interest and to help speed its establishment’ – See above.
- Section 5.15 – ‘Cleared areas should be allowed to naturally colonise with grassland species from the surrounding area or, to help speed establishment, could be sown with an appropriate native seed mix (such as Emorsgate EM10 Tussock Mixture) or seed sourced from a grassland site in the local area’ – The introduction of additional seed is only considered necessary in any areas where a grassland sward is slow to establish. Should the monitoring visit in Year 2 (see Section 4.6 of the Ecological Management Plan) find that grassland vegetation along the cliff top has not established, additional seed will be sown as required.
- Section 5.18 – ‘Vegetation should be allowed to naturally colonise the cliff base, or seed collected from species-rich grasslands in other areas of the site (e.g retained grassland at East Quay) using a brush harvester and scattered along the recreated cliff-foot substrates.’ – The habitats along the Cliff Base are likely to be quickly colonised from other existing habitats in the surrounding area. Should the monitoring visit in Year 2 (see Section 4.7 of the Ecological Management Plan) find vegetation along the cliff base has not established additional seed will be sown along its length. The existing vegetation in this area of the site is relatively sparse and monitoring would also permit appropriate remedial action if growth was too vigorous.

Invertebrate Management Plan

- West Pond 8 – ‘If possible, and seasonally appropriate, collect bulk invertebrate samples from species-rich grassland areas of the site (East Quay or South Quay) using vacuum-sampler (eg D-Vac, converted leaf-blower or similar) and transfer these to the BFM and Swale Corridor/Linear Park sites.’ – As stated in Section 4.2 of the Invertebrate Management Plan ‘All of these species (scarce and local invertebrates) are either highly mobile and/or are likely to be widespread in similar habitats throughout the Barry Docks area, and could therefore be expected to colonise/recolonise newly created habitats which are suitable within a short period of time’ – As such collecting bulk invertebrate samples is not considered an essential item.
- South Quay 16 – ‘If required collect seed material from species-rich grasslands at South Quay using a brush harvester, and scatter along the recreated cliff-foot substrates.’ – See above.
- South Quay 19 – ‘If possible, and seasonally appropriate, collect bulk invertebrate samples from species-rich grassland areas of the site (East Quay) using vacuum-sampler (as per (8) above) and transfer these to the restored cliff-foot area.’ – See above.

- East Quay 23 – ‘If possible, and seasonally appropriate, collect bulk invertebrate samples from remaining species-rich grassland areas of the site and/or from adjacent areas using vacuum-sampler (as per (8) above) and transfer these to the restored grassland areas.’ – See above.

Ecological Management Plan

- Section 3.51 – ‘Prior to the destruction of the existing pond at West Pond, material is to be dredged using an excavator bucket and transferred to the newly created pond. This transfer of material is hoped to relocate some of the existing interest and to help speed the new ponds establishment.’ – See above.
 - Section 3.57- ‘Cleared areas should be allowed to naturally colonise with grassland species from the surrounding area, or, to help speed establishment, could be sown with an appropriate native seed mix (such as Emorsgate EM10 Tussock Mixture) or seed sourced from a grassland site in the local area.’ – See comment above relating to Development Phase 1.
- 1.3 Comments made in the Whole Site Mitigation Strategy apply equally to the relevant section within the Development Phase 1 Mitigation Strategy and vice versa. Where appropriate, comments have not been duplicated.
- 1.4 Badger survey not included (Conditions: Full Condition 9, Outline Condition 31).
- 1.5 An update survey for Badgers was undertaken in May 2012 and a letter report submitted identifying that no Badgers or evidence of Badgers was noted within the area associated with Phase 1 of the development (Letter Ref: E0811601/RM/AP/24 May 2012/ L 01).
- 1.6 Many of the documents refer to works from April 2012 through to July 2012. If these have not yet been undertaken, all documents referring to proposed works will need to be revised accordingly.
- 1.7 The commencement of works has been delayed due to unforeseen site issues on site and as such many works scheduled to be undertaken this summer have not been undertaken. We have provided an indicative timetable for works relating to the ecological mitigation associated with Phase 1 of the development below. All timings are approximate only and may be subject to change, dependent upon progress of works on site.

Works	Anticipated timing
Construction of temporary fence around Corky Fruited Water Dropwort and demarcation of retained strip along cliff base (minimum 3m wide) via red and white tape or similar.	Completed late June/ early July 2012
Erection of reptile proof fence along western boundary of South Quay.	September/ early October 2012
Construction of shallow pond within Brownfield Meadow area.	Late Autumn 2012 – Winter 2012/2013
Creation of brownfield meadow substrate.	Autumn/ Winter 2012*
Sowing of brownfield meadow (Emorsgate EM1 Meadow Mixture).	Spring or Autumn 2013*
Planting of scrub corridor around brownfield meadow.	October 2013 – March 2014*
Sowing of meadow strip and swale within the linear park.	September 2015 – January 2016

* = timing dependent upon completion of sewer which is to run beneath the brownfield meadow area.

- 1.8 *Provision of a legal agreement for the retention, enhancement and management of 9300m² of skylark habitat.*
- 1.9 The Barry Waterfront Consortium have confirmed that a Section 106 Agreement was agreed on the 02 March 2012 between Vale of Glamorgan Council, BDW Trading Limited, Taylor Wimpey UK Limited and Persimmon Homes Limited and Associated British Ports and ABP Property Development Company Limited (Ref: 5174204v4). Schedule 6 of the Section 106 Agreement refers to the land retained by ABP (c.6800m²) which is to be managed for the purpose of 'Ecological Mitigation Works' i.e. for the benefit of ground nesting birds (Skylark etc). The remaining area (c.2500m²) is to be under the control of the Consortium and, as specified in Section 3.42 of the Ecological Management Plan, is to be subject to the same management regime as the land retained by ABP (i.e. management for the benefit of ground nesting birds).
- 2.0 *The Quays. Whole Site Ecological Mitigation Strategy (Document ref: E0811601 - R06 - 13 July 2012)***
- 2.1 *Section 2.9 Reptiles – the surveys which confirmed the reptile population were undertaken in 2008 and are now 4 years old. These are out of date. This section states that 'it is unlikely that the reptile population would have spread into other areas of the site due to the largely unsuitable nature of the intermediate habitats'. However, given the timescale, these habitats may have significantly changed and therefore we would ask for justification in making this statement. In addition, it should be considered as to whether a resurvey is appropriate. (as Section 5.22).*
- 2.2 We can confirm that walk-over surveys were undertaken in December 2011 and January 2012 which found the habitats on site to be largely unchanged to those identified during the baseline surveys undertaken in 2008/ 2009. As illustrated in the Phase 1 habitat survey plan (included as Appendix III within both the Development Phase 1 and Whole Site Ecological Mitigation Strategy), the habitats within South Quay include large areas of hard standing (concrete footings) which are considered likely to act as a barrier to reptile movement, with the results of the reptile surveys undertaken in 2008 indicating that this is likely to be the case (no reptiles were found to the west of the footings which spread across the width of South Quay). Hard standing (Tarmac) is also present along the northern and western boundary of South Quay and these areas are also considered likely to prevent the movement of reptiles into other areas of the site. However as a precaution, and as detailed in Section 5.27 of the Development Phase 1 Ecological Mitigation Strategy and 5.23 of the Whole Site Ecological Mitigation Strategy, a reptile exclusion fence is to be located along the western boundary of South Quay to prevent reptile movement into other areas of the site where they may be at risk of killing or injury. Due to the low likelihood of spread into adjacent areas and the installation of a fence as described above, update surveys are not considered necessary at South Quay or within West Pond (i.e. Phase 1 of the development works).
- 2.3 Due to the elapsed time between the baseline survey (2008) and the anticipated commencement of works at East Quay (2020) update surveys for reptiles are recommended within Section 6.3 of the Whole Site Ecological Mitigation Strategy.
- 2.4 *Section 3.5 states that 'mitigation strategies are being prepared for reptiles'. These will be required prior to the commencement of the reptile protection exercise at South*

Quay. The detailed mitigation strategy should include the translocation methodology (including assessment of any proposed receptor site and measures to increase carrying capacity) and details of post development monitoring to be submitted and approved in writing by the LPA prior to works commencing on site and thereafter implemented in accordance with the scheme.

- 2.5 A reptile mitigation strategy is currently in preparation and will be submitted prior to the commencement of any works within the South Quay area, including the reptile translocation itself. Works within South Quay (where reptiles have been identified) are not scheduled to commence until 2016.
- 2.6 *Section 4.5 Nesting birds – States that vegetation within the boundary of Phase 1 should be cut to ground level in February 2012, has this been carried out? And this section also states that the following the initial cut, subsequent maintenance cutting of the vegetation undertaken every 2-3 weeks between September and February. Is it likely that vegetation will require cutting at this frequency during late autumn and winter? (also Section 6.6)*
- 2.7 The vegetation was cut to ground level in February 2012, with maintenance cutting undertaken across the site every 2-3 weeks as required during the bird breeding season. ‘September and February’ is a typographical error, and should read ‘February and September’.
- 2.8 *Section 4.8 – Pond. It is stated that the pond to be created shall be approximately 80m² with a maximum water depth of 500mm. Consideration should be given to a slightly deeper pond, as after the translocation of some silt from the original pond and allowing for the initial silting up whilst the site stabilizes, a pond at 500mm depth will infill very quickly and will require high levels of management which will have the effect of devaluing the pond or even destruction through silting-up.*
- 2.9 The new pond is designed to mitigate for the loss of the existing areas of standing water on site which are very shallow and ephemeral in nature. As specified in Section 3.53 of the Ecological Management Plan, the pond is to be checked annually to ensure the pond continues to retain water/ undertake repairs to the clay liner as required.
- 2.10 *Section 4.8 also suggests creating the new pond from April / May 2012. Has this been carried out?*
- 2.11 The pond has not yet been created due the delays on site as discussed in Section 1.7 above. It is proposed that the pond will now be created in late autumn 2012 or winter 2012/2013, subject to the commencement of works on site.
- 2.12 *Section 4.8 recommends digging the new pond in April / May to allow for destruction of the original pond in autumn 2012. Section 4.9 then recommends that the pond be allowed to fill naturally with rainwater. It is not usually possible to fill a pond naturally with rainwater during summer months (this year excepted). Either the timings of the works need to be adjusted, or alternative methods programmed in.*
- 2.13 Creation of the pond in autumn or winter should enable the pond to fill naturally with rainwater. As detailed in drawing number 0833103-PL-GA-066 – Ecological Mitigation - Brownfield Meadow and within Section 5.9 of the Development Phase 1 Ecological Mitigation Strategy and Section 4.9 of the Whole Site Mitigation Strategy, the pond could be filled artificially and allowed to stand for 14 days,

prior to the introduction of material from the existing pond (if introduction of material is possible, see Section 2.14 below).

- 2.14 As discussed at our meeting on 17th September 2012, the transfer of material from the existing areas of standing water on site to the newly created pond may no longer be feasible as we understand the substrate in the existing standing water area is contaminated. The movement of contaminated material to the newly created pond is not desirable and the existing invertebrate interest associated with the standing water largely relates to Dragonflies (Black-tailed Skimmer Dragonfly *Orthetrum cancellatum* and Golden-Ringed Dragonfly *Cordulegaster boltonii*). These species are considered likely to be quick to colonise the new pond from other water bodies in the surrounding area and as such the transfer of material is considered a desirable element of the ecological mitigation works, rather than essential.
- 2.15 *Section 4.10 – the pH of the imported aggregate to be pH7-8. An explanation of how this will be ensured, how and by whom will be required.*
- 2.16 As agreed at our meeting, the pH of the aggregate itself will not be tested, although the mix of aggregate used will aim to create a substrate pH 7-8. Instead, the pH of the substrate in the Brownfield Meadow area is to be tested in years 1 and 5 following its creation. Should the pH be found to deviate significantly from pH 7-8, then works will be undertaken as required to adjust the pH (e.g. liming).
- 2.17 *Section 4.20 regarding the erection/installation of bat boxes. This comment applies equally to the bird boxes. Bird and bat boxes. Details to be provided showing how it will be ensured that the boxes are a) installed correctly and b) sited correctly. For example, will an ecologist put up the boxes, or will the ecologist give a training session to those putting up the boxes, and if so, will the installation/erection of boxes be followed by a short survey to ensure boxes are positioned correctly. This should also include a commitment to re-site/re-hang any boxes found not to be installed/erected correctly during the survey.*
- 2.18 As discussed and detailed within Section 5.21 of the Development Phase 1 Ecological Mitigation Strategy and 4.20 of the Whole Site Ecological Mitigation Strategy, the bat boxes are to be located on the commercial buildings which are outside the control of the Consortium and are to be dealt with as part of a future reserved matters application. The details of specification and positioning identified within these strategy documents were included as recommendations only. These mitigation/enhancement issues are achievable and will need to be pursued by the authority in relation to the relevant future reserved matters application.
- 2.19 The location of bird boxes illustrated in drawing number 0833103-PL-GA-071 – Ecological Mitigation: Bird Box Locations was intended as indicative only. As detailed within this drawing and Section 5.7 of the Whole Site Mitigation Strategy, the housing layout across South Quay is yet to be confirmed and more detailed information regarding the siting and installation of boxes is to be provided, following confirmation of an agreed site layout. This is again a point of detail relevant to reserved matters applications.
- 2.20 *Section 5.6 – surveillance will be required to initiate management if vegetation is to be maintained at 50-100mm. Details are required of how and when this is to be done and by whom.*

- 2.21 Reference to 50-100mm is intended as an indicative cutting height, as is a normal landscape practice. As specified within Section 5.6 of the Whole Site Mitigation Strategy, cutting is to be undertaken every 2-3weeks which is considered sufficient to maintain the vegetation at this height.
- 2.22 *Section 5.7 – To note. Enhancement of bird nesting habitat should include provision for monitoring of the boxes. This may be dealt with at a later date under reserved matters (to be confirmed).*
- 2.23 As specified within Section 4.10 of the Ecological Management Plan, monitoring in relation to birds across the whole site is to be undertaken in year 5 following completion of the scheme. This would follow the BTO Breeding Bird Survey (BBS) methodology or similar and would include monitoring of the bird boxes.
- 2.24 *Section 5.10 discusses the retention of the cliff top scrub for scrub-nesting birds, yet section 5.14 states that 80% of this will be removed. There is a conflict here in management.*
- 2.25 As detailed within Section 5.14 of the Whole Site Ecological Mitigation Strategy and drawing number 0833103-PL-GA-073 – Ecological Mitigation - Cliff Top and Cliff Base, a 4-5m wide strip of existing scrub is to be retained along the length of the cliff top, with 20% scrub cover maintained within the retained habitat areas at the eastern and western ends. This will provide a continued resource for scrub nesting species, with new tree and scrub planting also proposed as part of the landscaping scheme.
- 2.26 *Section 5.17 As slow worms have been confirmed in the cliff base area, the management of this area should be targeted at slow worms in addition to invertebrates. At present, slow worms are omitted completely from this section. – See also Section 3.60 for the management plan. It is noted that the slow worm population will be translocated off site. However, habitat creation and its subsequent management should allow for the re-colonisation of the area by slow worms in the future. As such, the management plan should incorporate slow worm requirements.*
- 2.27 The mitigation for the cliff base is designed to re-create the existing habitats i.e. scree with low cover of vegetation. Slow Worms were found within these habitats during the reptile surveys undertaken in 2008 and as such these habitats are considered suitable to support reptiles. Therefore the re-creation of these habitats is considered suitable for the re-colonisation of Slow Worms along the cliff base.
- 2.28 *Section 5.13 To prevent accidental killing of hibernating reptiles, it is recommended that the scrub be cleared in a 2-step process, firstly cutting (as described) but leaving the cut material in situ until reptiles emerge from hibernation, then the cut brush and scrub may be raked away. Removal of above ground cover/vegetation will alter the micro-habitat in which the reptiles are hibernating and may reduce temperatures below freezing. Leaving the cut material on the ground will help to retain the original micro-habitat conditions.*
- 2.29 As discussed, areas with dense scrub will be cut in September or late February (providing weather is not unseasonably cold). Should areas with dense scrub require cutting over winter (October-January), the cut vegetation will be retained in-situ until reptiles emerge from hibernation (February/ March, weather dependent) prior to removal from site.

- 2.30 Section 5.19, it is recommended that a lighting plan is prepared and submitted with respect to retention/maintenance of dark flight corridors for bats.
- 2.31 As discussed, a lighting plan to be submitted by a lighting engineers as part of relevant reserve matters applications would appear to be the most appropriate way to progress this point.
- 2.32 Section 5.23 The repair of defects in the fence within 24-48 hours is welcomed. However, "regular" as in the "the fence should be regularly checked" requires clarification. Details are required of who will check the fence and whose responsibility it is to repair the fence. Also detail what mechanisms will be in place to allow repair /checking of the fence in a timely fashion.
- 2.33 The maintenance of the fence is to be the responsibility of the Barry Waterfront Consortium and is to be implemented via the contractors on site (currently Cuddy Group). The fence is to be checked weekly for any defects, which are to be repaired within 24-48hrs. As requested, should the number of defects be 3 or greater during any one check, the frequency of checks will be increased to twice weekly.
- 2.34 Section 6.8 Further details are required of the "permanent fence" along the boundary of the land owned by the consortium. Details required include, but not exclusively limited to: height, materials, above/under ground, close-boarded or with gaps etc.
- 2.35 As specified within Section 6.8 of the Whole Site Mitigation Strategy 'Following completion of construction the area a permanent fence is to be erected along the boundary of the land owned by the Consortium to prevent access by members of the public, both to limit disturbance to nesting birds and on health and safety grounds associated with the dock edge along the southern boundary.' The fence specification is yet to be finalised (works within the East Quay area are not currently scheduled to commence until 2020), however we can confirm the fence will be a typical 'people proof' design, weld mesh, chain link or palisade likely to be 1.8 or 2.0 metres high. It would be the objective of this fence to secure the land retained by ABP/ the dock edge in addition to prevent members of the public from disturbing birds and other wildlife which may be using the area.
- 2.36 Drawing number, revision B Public Realm Extent, revise drawing legend to include full key of all the colour codes used on the drawing, including deep purple, yellow, orange, dark green and mid green.
- 2.37 Drawing number 0833103/PI/GA/064 was included as an Appendix to provide an indication of the boundary of Phase 1 of development only. For clarity, the drawing has been revised and re-issued to accompany this letter.

3.0 The Quays - Development Phase 1. Ecological Mitigation Strategy (Document ref: E0811601 - R05 13 July 2012)

- 3.1 Construction of the shallow pond – in Section 5.8 it is from April / May 2012 and in section 6 (Table 1) it is July / August 2012. There is a conflict in proposed timescales.
- 3.2 The pond was scheduled to be dug from April/ May, with transfer of material from the existing pond to the newly created pond in July/ August 2012. As described in Section 1.7 and 2.11, the works on site have been delayed and the pond is now likely to be created in late Autumn 2012 or Winter 2012/ 2013,

subject to the commencement of works on site. As described in Section 2.14, the transfer of material from the existing pond to the newly created pond is now unlikely to be achievable due to presence of contaminated material within the pond substrate.

4.0 The Quays. Invertebrate Management Plan (Document ref: E0811601 – R08 – 13 July 2012)

- 4.1 Section 1.2 is too vague “*approach could be facilitated by...*” and “*in an attempt to.....*” are not considered commitments to undertake the work. It is suggested that these proposals are *firmed up*.
- 4.2 Section 1.2 is an introduction to the document only. Specific recommendations in relation to mitigation are detailed within the subsequent sections of the document.
- 4.3 *West pond 1. Comment regarding pH of imported aggregate, as per comment in section 2 above. Also this section describes “if required additional seed is to be introduced....” Details are required of the mechanisms in place to determine how and when additional seed is required? Details are also required regarding whose responsibility this would be and who would undertake any remedial actions necessary.*
- 4.4 With regard to pH, see Section 2.16 above. As detailed within Section 5.10 of Development Phase 1 Ecological Mitigation Strategy and 4.10 of the Whole Site Mitigation Strategy ‘*The brownfield meadow should be surveyed by a suitably qualified ecologist between July and September in the year following sowing. If a strong sward has failed to establish, further seed may need to be introduced. If required further seed will be collected from the species-rich grasslands at East Quay using a brush harvester (or similar method) and scattered across the brownfield meadow.*’ The introduction of additional seed, if required, is to be the responsibility of the Barry Waterfront Consortium.
- 4.5 *West Pond 8. “If possible....” South Quay 14. “Attempt to...”, 17 “Find locations for...” and 19. “If possible....” East Quay 23. “If possible....”, Brown Roofs 24 “if possible.....”. More definite statements to be used.*
- 4.6 West Pond 8 – Collecting bulk invertebrate samples is a desirable, rather than essential option, to help speed colonisation of the habitats. It is considered likely the invertebrate species of interest at the site would be relatively quick to colonise the new areas of habitat, with surrounding areas (cliff top, future development phases and off-site habitat) likely to act as a source for colonisation.
- 4.7 South Quay 14 – An ‘attempt’ is to be made to recreate the talus habitats which currently exist along the cliff base. As discussed, works are required to be undertaken along the cliff base and as such the cliff base is to re-established by the re-positioning of scree material and boulders along the length of the cliff base.
- 4.8 South Quay 17 – Until the works to recreate the cliff base habitat are undertaken the number of surplus boulders (if any) will remain unknown. If surplus boulders are available these will be used to create additional habitat such as stone piles in areas such as the Brownfield Meadow, Swale Corridor etc.
- 4.9 South Quay 19 - Collecting bulk invertebrate samples – See Section 4.6 above.
- 4.10 East Quay 23 - Collecting bulk invertebrate samples – See Section 4.6 above.

- 4.11 East Quay 24 – Brown roofs – As discussed, and specified within Section 5.24 of the Development Phase 1 Ecological Mitigation Strategy and Section 4.23 of the Whole Site Mitigation Strategy, the Brown roofs are to be incorporated into the district centre and are to be dealt with as part of a future reserved matters application – these buildings are not within the control of the Consortium. As such, specifications within the Mitigation Strategy documents are designed as recommendations only.
- 4.12 *South Quay (see comments above) provide details of management for slow worm (with natural re-colonisation of the area).*
- 4.13 The Invertebrate Management Plan was written principally to deal with the invertebrate interest at the site. As discussed in Section 2.27 above, the re-creation of the cliff base habitat (scree and low cover of vegetation) will provide habitat appropriate for re-colonisation by Slow Worms.
- 5.1 The Quays. Ecological Management Plan (Document ref: E0811601 – R07 – 13 July 2012)**
- 5.2 *Section 3.8 - Details required of the “appropriate permanent fence” to protect the brownfield meadow.*
- 5.3 As requested, drawing number 0833103-PL-GA-066 – Ecological Mitigation - Brownfield Meadow has been revised to provide further detail on the specification of the fence and has been re-issued to accompany this letter.
- 5.4 *Section 3.9 – The management plan describes that once the sward reaches 100mm it should be cut back to 75mm, with cutting to this height repeated whenever the sward height is between 100-200mm (typically 2 cuts per month...). Details are required of the methods that will be used to instigate the management, ie how will it be known that the sward is at 100mm, - will surveillance be required, if so by whom and how often will the site be checked?*
- 5.5 100-200mm is an approximate height only. As detailed, typically 2 cuts per month are to be undertaken to a height of 75mm which is considered to maintain the sward at the required height. As detailed in Section 5.1 of the Ecological Management Plan, the management of the ecological features is to be the responsibility of the Barry Waterfront Consortium.
- 5.6 *Section 3.40 – comments as bullet point above.*
- 5.7 See Section 5.5 above.
- 5.8 *Section 3.42. Management proposals are adequate, however, consider the use of “skylark plots”. to create small feeding areas and will also increase sward height diversity which may help prevent the sward becoming tussocky. Also consider occasional topping of the vegetation in early spring.*
- 5.9 The creation of Skylark plots is not considered necessary as the sward current has a variety of sward lengths due to factors such as the underlying substrate, grazing pressure from rabbits etc. This area is not to be disturbed as part of the development and as such the variety of sward heights will be maintained.

- 5.10 *Section 3.48 discusses allowing the scrub to grow to a height of 2-3 but not allowing it to grow higher than 3m. Details are required as to how this will be implemented. i.e. what methods will be used to ascertain when the scrub is at or near 3m, how will management be triggered? Who will be responsible for the management.*
- 5.11 3m is included as an indicative height only to ensure the scrub is maintained as a tall hedge, rather than being allowed to grow into trees. The management specifications include trimming to a height of 2.5m every 2 years, which is considered appropriate to maintain the hedge at a height of c.3m. As detailed in Section 5.1 of the Ecological Management Plan, the management of the ecological features is to be the responsibility of the Barry Waterfront Consortium.
- 5.12 *Section 3.51 as discussed in a previous section, natural filling of the pond in the summer. This section may require updating if the proposed works for April / May and the creation of the pond in July have not yet been carried out.*
- 5.13 As detailed above, the creation of the pond has not yet been undertaken, with likely timing for creation from late autumn 2012 – winter 2012/2013. Creation in autumn/ winter should enable the pond to be naturally filled with rainwater.
- 5.14 *Section 3.53 checking of the pond in October, information to be provided detailing who will check the pond and confirmation of responsibility for works if the monitoring identifies remedial works to be undertaken.*
- 5.15 The pond is to be checked annually by a management company to be appointed by the Barry Waterfront Consortium who are to be responsible for managing the ecological features across the site. Annual checks are to be undertaken to remove litter, ensure the pond retains water, and repair the clay liner as required. As detailed within Section 4.5 of the Ecological Management Plan, monitoring of the pond is to be undertaken by a suitably qualified ecologist in years 2, 5, 10 and 20 following its creation. Management of the pond is to be reviewed following these monitoring visits and amended if required.
- 5.16 *Section 3.54 details to be provided of the fence surrounding the pond. Confirmation required of whether the fence will be inside or outside of the 3m vegetation margin.*
- 5.17 The fence is to be located around the Brownfield meadow area, rather than the pond itself (see drawing number 0833103-PL-GA-066 – Ecological Mitigation - Brownfield Meadow).
- 5.18 *Section 3.56-3.59 regarding management of the cliff top. Although a slow worm population has been identified in this area, and the management plan states that this area (Cliff top) is to be managed primarily for the benefit of biodiversity, there is no mention of slow worms or slow worm habitat management, other than the creation of log piles. It is suggested that management (included proposed scrub clearance) be reconsidered with a view to retaining and enhancing the present population of slow worm. This is particularly relevant to maintaining biodiversity of the site given the translocation off-site of the other population of slow worm at the cliff base.*
- 5.19 The management specified within Sections 3.56 – 3.59 is designed to benefit a variety of species currently known to be present along the cliff top, including invertebrates, birds and reptiles (Slow Worm). The dense scrub cover is to be reduced to 20% cover within the retained areas to provide a grassland and scrub mosaic habitat, favoured by Slow Worm. 4 log-piles are also to be created within the retained area of the cliff top to provide additional shelter/ foraging habitat

suitable for reptiles (see drawing number 0833103-PL-GA-073 – Ecological Mitigation - Cliff Top and Cliff Base Rev B 13-07-12 and Section 5.16 of the Whole Site Ecological Mitigation Strategy). To maintain the grassland and prevent encroachment of scrub the sward is to be cut to a height of c.75mm in spring and again in late summer. As specified in section 3.58 of the Ecological Management Plan, ‘all vegetation management is to be undertaken by hand using stimmers, chainsaws, brush cutters or similar’ to minimise the risk to any Slow Worms present.

- 5.20 *Section 3.60 Cliff base – this area supports a good population of slow worm on the site. It is noted that a translocation exercise will take place to move the reptiles off-site. However, part of this habitat will remain following development. Therefore to maintain biodiversity within the area, the cliff base should be managed for both invertebrates and slow worm with the aim of allowing natural recolonisation. If it is intended to remove all reptiles from the area and prevent recolonisation, please provide a justification for permanent removal of a biodiversity interest from site.*
- 5.21 The mitigation for the cliff base is designed to re-create the existing habitats i.e. scree with low cover of vegetation. Slow Worms were found within these habitats during the reptile surveys undertaken in 2008 and as such these habitats are considered suitable to support this species. Therefore the re-creation of these habitats is considered suitable for the re-colonisation of Slow Worms along the cliff base. As specified within Section 3.6 of the Ecological Management Plan, cutting of vegetation along the cliff base is to be undertaken once a year in Spring to a height of c.75mm to prevent scrub encroachment and maintain a grassland resource.
- 5.22 *Section 3.61, details to be provided of the re-surveyed areas in summer 2012 for Childing Pink, Corn Parsley and Corky Fruited Water Dropwort if available. If not available, details to be provided of when these surveys will be undertaken.*
- 5.23 As discussed, surveys for these species were undertaken in July and August 2012. Childing Pink was found in the same location on East Quay as in 2008, albeit in a reduced number. Works are not due to commence at East Quay until 2020, and an interim and post-development management plan is in preparation for this species.
- 5.24 Corn Parsley and Corky-fruited Water-dropwort were not found during the targeted surveys undertaken in July and August 2012, or during a walkover surveys undertaken in 2011. The Corn Parsley was found on a road verge during the 2008 surveys and the management of this area (regular mowing) is likely to have prevented the plant from setting seed, resulting in it dying out in this area.
- 5.25 The area in which the Corky-fruited Water-dropwort was found during 2008 has become overgrown with scrub which may have outcompeted the plants, weakening them over time and preventing reproduction and recruitment of seedlings. However a small number of non-flowering plants may persist in the area and as a precaution an additional survey for this species is to be undertaken in Winter 2012/ 2013 (during the time the basal rosettes are most visible). Should the plant be found to be present an appropriate mitigation plan for this species will be prepared and submitted to the local authority. Appropriate mitigation may include the translocation of the plant or turfs, which could be undertaken during late winter/ spring 2013.
- 5.26 *Section 3.63 Management of the brown roofs, visits three times a years to monitor growth – an indication of who will carry out the monitoring and it will be necessary to*

provide a commitment to remedial works should the monitoring visit confirm that the roofs are not developing/maturing as predicted.

- 5.27 As specified within Section 5.24 of the Development Phase 1 Ecological Mitigation Strategy and Section 4.23 of the Whole Site Mitigation Strategy, the Brown roofs are to be incorporated into the district centre and are to be dealt with as part of a future reserved matters application – these buildings are not within the control of the Consortium. As such, specifications within the Mitigation Strategy documents are designed as recommendations only and we are unable to advise who will be responsible for carrying out the monitoring/ maintenance work.
- 5.28 *Section 3.64 – details to be provided of who will monitor the vegetation on the roof and whose responsibility it will be if it requires cutting. Details to be provided of how management will be initiated and detail responsibility for remedial works, if required*
- 5.29 See Section 5.27 above.
- 5.30 *Section 3.65 and 3.66 – Bird and bat boxes. Details to be provided showing how it will be ensured that the boxes are a) installed correctly and b) sited correctly. For example, will an ecologist put up the boxes, or will the ecologist give a training session to those putting up the boxes, and if so, will the installation/erection of boxes be followed by a short survey to ensure boxes are positioned correctly. This should also include a commitment to re-site/re-hang any boxes found not to be installed/erected correctly during the survey.*
- 5.31 As discussed and detailed within Section 5.21 of the Development Phase 1 Ecological Mitigation Strategy and 4.20 of the Whole Site Ecological Mitigation Strategy, the bat boxes are to be located on the commercial buildings which are outside the control of the Consortium and are to be dealt with as part of a future reserved matters application. The details of specification and positioning identified within these strategy documents were included as recommendations only.
- 5.32 The location of bird boxes illustrated in drawing number 0833103-PL-GA-071 – Ecological Mitigation: Bird Box Locations was intended as indicative only. As detailed within this drawing and Section 5.7 of the Whole Site Mitigation Strategy, the housing layout across South Quay is yet to be confirmed and more detailed information regarding the siting and installation of boxes is to be provided, following confirmation of an agreed site layout.
- 5.33 *Section 4.0 it is noted that the pond will be monitored in years 2, 5, 10 and 20. Between years 10 and 20 the pond will be mature and should be fully established. As a result, it may also be a period of time where it will silt up quickly and this will result in the total loss of a pond that is relatively shallow. Interim monitoring or programmed management between years 10 and 20 is suggested.*
- 5.34 Monitoring in years 2, 5, 10 and 20 only were requested in Outline Planning Condition 24. Monitoring within these years is to be undertaken by an ecologist with the management regime reviewed and amended as appropriate. As detailed in Section 3.53 of the Management Plan, the pond is to be checked annually by the company responsible for managing the ecological features across the site to ensure it retains water and that the clay lining remains intact.
- 5.35 *Section 4.7 Cliff base – details to be provided of the scope of the surveys in years 2 and 5. Will it include reptiles (with reference to bullet point(s) above).*

- 5.36 As requested, the surveys in years 2 and 5 (post construction of South Quay) will include for monitoring of reptiles along the cliff base. Monitoring using standard methods such as the deployment of artificial reptile refugia (e.g. roofing felt mats) and subsequent checking is likely to be problematic in such close proximity to a residential area. Given that the cliff-top habitats (the most likely source of any re-colonisation) are to be retained and managed, a presence/absence survey of this area (using roofing felt mats) would be practicable with mats also deployed at low density along the cliff base due to concerns over removal/tampering.
- 5.37 As detailed within Section 4.7 and 4.12 of the Ecological Management Plan, other surveys of the cliff base to be undertaken in years 2 and 5 are to include habitat (e.g. Phase 1) and invertebrate surveys. Invertebrate surveys are to be comparable to those used to collect baseline data in 2008, including sweep netting and beaten samples from taller vegetation.
- 5.38 *Section 4.10. The recommendations for skylark monitoring are welcomed and fully supported. However, we recommend that the standard BTO methodology for bird surveys is followed.*
- 5.39 The surveys would follow the BTO Breeding Bird Survey (BBS) methodology or similar.

We trust that this letter serves to address the points raised in your consultation response and discussed at our meeting on 17th September 2012, and provides sufficient clarification to enable discharge of the relevant conditions. Should you have any outstanding queries please do not hesitate to contact us.

Yours sincerely



Annabelle Phillips
Ecologist

cc. *Richard Keogh (Persimmon Special Projects), Andy Cockett (Nathaniel Lichfield and Partners)*

Enc: 0833103/PI/GA/064 Public Realm Extent Rev C 25-09-2012
0833103-PL-GA-066 – Ecological Mitigation - Brownfield Meadow Rev E 25-09-12