DAVID CLEMENTS ECOLOGY LTD

ATLANTIC TRADING ESTATE, BARRY

ECOLOGICAL ASSESSMENT

July 2017

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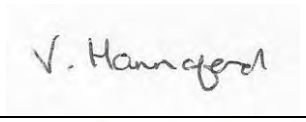
Author:	Vicky Hannaford BSc (Hons)		03.07.2017
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SUMMARY

This report has been prepared by David Clements Ecology Ltd (DCE) on behalf of Vale of Glamorgan County Borough Council (VOG) and refers to a plot of land within Atlantic Trading Estate, Barry, South Wales. The site location and context is shown at Plan 1.

The site lies within Atlantic Trading Estate to the east of Barry Docks and is situated in the south of the county borough of the Vale of Glamorgan, NGR ST13378 67278. Atlantic Trading Estate is already occupied by several trading/industrial units including the VOG Household Waste Recycling Centre with the area surveyed wrapping around these units. To the north and west of the site there are industrial/trading units beyond which lies Cadoxton River which flows into Barry Dock, while to the east there are further industrial/trading units and to the south an area of rough ground leads to the coast. The site measures approximately 2.7ha and lies at approximately 10m AOD. While the site is mainly flat whilst the periphery of the site appears to be enclosed by a bund measuring approximately 1m in height.

The site is currently dominated by dense bramble scrub and it is proposed to carry out vegetation clearance in order to conduct some initial site inspection works. These inspection works are a potential pre-cursor to the submission of a planning application to further develop the site. Details of any future development within the site are not known at the time of writing.

The site does not contain any statutory sites of nature conservation interest, such as Special Area of Conservation (SAC), Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) or Local Nature Reserves (LNRs). However, Hayes Point to Bendrick Rock Site of Special Scientific Interest (SSSI) lies approximately 60m to the south of the site and is designated for its geological interests.

The habitats of the development site are not considered to have more than Local Value to wildlife, and as such development of these are considered to be of relatively minor significance and any impacts not likely to extend beyond the immediate vicinity. Any impacts should as such be amenable to mitigation measures.

Development of the site will result in the loss of the majority of habitats within the site, however it is understood that a parcel of land n the north of the site will be retained.

Notwithstanding the above, and on the basis of evidence currently available, it is concluded that the site could be redeveloped without causing significant adverse impacts to wildlife, provided adequate mitigation and compensation is provided to protect the existing features of value and to avoid or minimise impacts to protected species. It is therefore considered that the proposed development of this site would not be unacceptably constrained by biodiversity issues.

Recommendations with respect to possible mitigation and compensation measures are set out in the report.

1.0 INTRODUCTION

1.1 This report has been prepared by David Clements Ecology Ltd (DCE) on behalf of Vale of Glamorgan County Borough Council (VOG) and refers to a plot of land within Atlantic Trading Estate, Barry, South Wales. The site location and context is shown at Plan 1.

1.2 The site lies within Atlantic Trading Estate to the east of Barry Docks and is situated in the south of the county borough of the Vale of Glamorgan, NGR ST13378 67278. Atlantic Trading Estate is already occupied by several trading/industrial units including the VOG Household Waste Recycling Centre with the area surveyed wrapping around these units. To the north and west of the site there are industrial/trading units beyond which lies Cadoxton River which flows into Barry Dock, while to the east there are further industrial/trading units and to the south an area of rough ground leads to the coast. The site measures approximately 2.7ha and lies at approximately 10m AOD. While the site is mainly flat whilst the periphery of the site appears to be enclosed by a bund measuring approximately 1m in height.

1.3 The site is currently dominated by dense bramble scrub and it is proposed to carry out vegetation clearance in order to conduct some initial site inspection works. These inspection works are a potential pre-cursor to the submission of a planning application to further develop the site. Details of any future development within the site are not known at the time of writing.

1.4 The remainder of this report sets out the results of the ecological survey and an assessment of the site. It also assesses the likely impact of any future redevelopment, and makes recommendations regarding the mitigation of any adverse biodiversity impacts which might arise as a result.

1.5 Designated Sites of Biodiversity Interest

Statutory Sites

1.5.1 The site does not contain any statutory sites of nature conservation interest, such as Special Area of Conservation (SAC), Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) or Local Nature Reserves (LNRs). However, Hayes Point to Bendrick Rock Site of Special Scientific Interest (SSSI) lies approximately 60m to the south of the site and is designated for its geological interests.

Non-Statutory Sites

1.5.2 The site does not contain or lie adjacent to any non-statutory sites of nature conservation interest such as Sites of Importance for Nature Conservation (SINCs). There is one SINC within 1km of the site.

- Cadoxton River (338) – lies approximately 360m to the north east of the site.

1.5.3 'Sites of Importance for Nature Conservation' (SINC) are one of a class of non-statutory nature conservation designations which are recognised throughout the UK under a wide range of titles, but which are collectively referred to as 'Wildlife Sites'. Wildlife Sites are so-called 'third tier' sites, generally ranked below sites which are of international or national biodiversity significance, but which are considered to have substantive nature conservation value in the sub-national (ie regional or district) context. They are usually designated at the county or county borough level by the relevant local planning authority, and are recognised as a material planning consideration in the relevant statutory development plan. The framework for the identification and designation of 'Wildlife Sites' is set out in various Government documents, and is referred to in Planning Policy Wales (2017, 9th Edition) and Technical Advice Note 5: Nature Conservation & Planning (2009).

1.5.4 Regionally Important Geological Sites (RIGS) are locally designated sites of local, national and regional importance for geodiversity in the UK. Bendrick Rock and Coast Section East of Barry, approximately 355m to the south west and 55m to the south of the site respectively, are both designated RIGS.

2.0 APPROACH AND METHODS

2.1 Survey Methodology

2.1.1 The site was surveyed on 15th June 2017, in good weather, being dry and windy, and was subject to an Extended Phase 1 Survey/Preliminary Ecological Appraisal in accordance with the guidelines published by the Chartered Institute of Ecology and Environmental Management (CIEEM 2013). This was based on the Phase 1 vegetation classification methodology developed by the former Nature Conservancy Council (current version: JNCC 2007), a nationally-accepted and standard method for the rapid survey and appraisal of ecological habitats which is based primarily on the recording of vegetation and its classification into defined habitat categories. Dominant and conspicuous flora species were recorded and 'target notes' were prepared for any features of particular interest.

2.1.2 The methodology also requires the recording of conspicuous fauna species such as birds, herptiles (ie amphibians and reptiles), mammals and invertebrates such as butterflies and dragonflies, paying particular attention to the presence (or possible presence) of any rare or protected species.

2.2 Data Trawl

2.2.1 In addition to the original survey, a data trawl was carried out with the South-East Wales Biological Records Centre (SEWBReC) in order to obtain access to any existing biological data which might be available. SEWBReC is the main repository for biodiversity and wildlife records in the south-east Wales region.

3.0 SURVEY RESULTS

3.1 Habitats and Vegetation

3.1.1 The results of the vegetation and habitat survey are shown on Plan 2 of this report, and are described briefly below. Lists of the species recorded are given at Appendix 1 and representative photographs are given at the end of the report

Notable Plant Species

3.1.2 No nationally rare or scarce species are recorded from the site.

Notable Habitats

3.1.3 No habitats within the site boundary are considered to be Priority Habitats of the UK Biodiversity Action Plan (Biodiversity Reporting & Information Group, 2007) or listed in Section 7 as a 'habitats of principal importance for conservation of biological diversity in Wales' (Environment Wales Act 2016; Wales Biodiversity Partnership, 2016).

Scrub

3.1.4 The majority of the site is dominated by dense bramble (*Rubus fruticosus agg*) scrub. Dog rose (*Rosa canina*) is scattered within the bramble. Willow (*Salix sp.)* and elder are present along the western boundary and interspersed within the scrub as is sycamore (*Acer pseudoplatanus*), hawthorn (*Crataegus monogyna*), buddleia (*Buddleja davidii*) and traveller's joy (*Clematis alba*).

Ruderal Vegetation

3.1.5 Along the northern boundary of the site ruderal species are more evident particularly along the bund. Species are diverse; those occurring frequently include mustard species (*Brassica sp*.), creeping thistle (*Cirsium arvense*), hogweed (*Heracleum sphondylium*), mugwort (*Artemisia vulgaris*), bristly oxtongue (*Picris echioides*), hop trefoil (*Trifolium campestre*), oxeye daisy (*Leucanthemum vulgare*), teasel (*Dipsacus fullonum*), curled dock (*Rumex crispus*), fennel (*Foeniculum vulgare*), cleavers (*Galium aparine*) and rosebay willowherb (*Chamerion angustifolium*). Other species which are present occasionally include red valerian (*Centranthus ruber*), perforate St John's wort (*Hypericum perforatum*), cut-leaved cranesbill (*Geranium dissectum*) and round leaved cranesbill (*Geranium rotundifolium*), common mallow (*Malva sylvestris*) and yellow wort (*Blackstonia perfoliata*), bird's foot trefoil (*Lotus corniculatus*) and selfheal (*Prunella vulgaris*), creeping buttercup (*Ranunculus repens*) and creeping cinquefoil (*Potentilla reptans*). Grasses present associated with roadside verges and waste ground include false oat grass (*Arrhenatherum elatius*) , Yorkshire fog (*Holcus lanatus*) and cock's foot (*Dactylis glomerata*).

3.1.6 To the north east of the site another area of ruderal vegetation occurs with additional species such as spear thistle (*Cirsium vulgare*) , white mignonette (*Reseda alba*), a large clump of meadow vetchling (*Lathyrus pratensis*), bush vetch (*Vicia sepium*) and hedge

woundwort (*Stachys sylvatica*) with white campion (*Silene latifolia*) and forget me not (*Myosotis sp*.) present rarely. Hedge bindweed (*Calystegia sepium*) was noted growing throughout this area

3.1.7 To the south west, again along the periphery of the site, ruderal species occur on the bund. Species present include white mignonette, ox eye daisy, common mallow, teasel, knapweed (*Centaurea nigra*), hedge bindweed, common fleabane (*Pulicaria dysenterica*), creeping buttercup, creeping cinquefoil and white clover (*Trifolium repens*).

Amenity Grassland

3.1.8 Grassland along the roadside verge, to the east and south east of the site appears to be mown on a regular basis leaving a relatively short sward. Grasses recorded include annual meadow grass (*Poa annua*), rough meadow grass (*Poa trivialis*), Yorkshire fog, false oat grass, cock's foot. Herbs present comprise daisy (*Bellis perennis*), ribwort plantain (*Plantago lanceolata*), white clover, red clover (*Trifolium pratense*), bird's foot trefoil, creeping cinquefoil, black medic (*Medicago lupulina*), yarrow (*Achillia millefolium*) and scarlet pimpernel (*Anagallis arvensis*).

Invasive Species

3.1.9 The highly invasive and non-native species, Japanese knotweed (*Fallopia japonica),* is present in the east of the site, see target note (TN). The knotweed was visible along the edge of the site amongst the bramble, however the extent of the knotweed into the site is not known due to the density of the vegetation beyond.

3.2 Fauna

Bats

3.2.1 All species of bats and their roosting sites are protected under the EU Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna (92/43/EEC; the 'Habitats Directive'), implemented in the UK via the Conservation (Natural Habitats &c.) Regulations 2010 (the 'Habitats Regulations'). The roosting places used by bats are also protected against unauthorised disturbance or obstruction under the amended Wildlife & Countryside Act 1981. Several bats are listed as 'Priority Species' for conservation in the UK Biodiversity Action Plan (BRIG 2007) and its Welsh equivalent (WBP 2016).

3.2.2 The nearest bat record is of noctule and pipistrelle bats commuting/foraging approximately 400m to the north east of the site. There are no records for bats within 1km of the site (SEWBReC data, 2017).

3.2.3 There are no buildings or trees within the site suitable of providing roosting habitat for bats although it is possible bats may use the scrub habitat for foraging.

Otter

3.2.4 Otter is a 'European protected species' afforded a level of statutory protection which is similar to that for bats, above. It is also a Priority Species of the UK BAP and Welsh equivalent.

3.2.5 There are no records for otter within 1km of the site, the nearest records being approximately 1.3km to the north at Cadoxton Ponds (SEWBReC data, 2017).

3.2.6 There were no signs of otter recorded during the present survey, however, Cadoxton River lies approximately 100m to the north of the site where otters are likely to be present. While the scrub habitat has potential to provide some cover for otters, the site is heavily disturbed making their presence unlikely.

Dormouse

3.2.7 Dormouse is a 'European protected species' afforded a level of statutory protection which is similar to that for bats and otter, above. It is also a Priority Species of the UK and Welsh BAPs.

3.2.8 No records exist for dormouse within 1km of the site (SEWBReC data 2017). The site is considered to be sub-optimal for dormice. While there is plenty of bramble scrub within the site, the lack of connectivity to the wider landscape and lack of woodland habitat within the site it is considered highly unlikely that dormouse are present.

Badger

3.2.9 Badger is fully protected in the UK under the terms of the Protection of Badgers Act 1992. Protection applies both to the animal itself and to its nesting burrows (setts), and current interpretation of the Act also confers some protection to key foraging areas. Badgers remain comparatively widespread and common throughout the UK and are increasing in numbers in many areas, although they remain scarce and under threat in others. Whilst not rare nationally, it is subject to separate consideration in national planning policy.

3.2.10 No record of badger exists within 1km of the site (SEWBReC data 2017). No evidence of badger was noted during the present survey such as fur, dung or snuffle-pits. There were no obvious mammal paths visible through the vegetation. The topography of the site is not conducive for the digging of setts and as such it is considered unlikely badgers are present within the site.

Other Mammals

3.2.11 It is possible that a range of other small mammals are present on the site, including shrews, voles, mice, hedgehog, fox and mole, occurring either as resident species or whilst foraging and/or commuting although none were recorded during the present survey.

Birds

3.2.12 Nearly all species of bird are protected against killing or injury as individuals under UK legislation and this protection extends to their nests, eggs and young. A number of

especially rare species are subject to enhanced protection under UK law by virtue of their listing on Schedule 1 of the Wildlife & Countryside Act 1981, and may not be disturbed whilst nesting.

3.2.13 There are numerous records of birds in the surrounding vicinity within approximately 1km of the site, including many which are Schedule 1 (ie specially protected) or priority conservation species on the UK BAP and/or Section 7 of the Environment (Wales) Act 2016. These include common scoter, Cetti's warbler, kingfisher, Mediterranean gull, whimbrel, greenshank (all Schedule 1 species), linnet, dunnock, bullfinch, house sparrow, skylark, song thrush, great northern diver, ringed plover, pintail and black throated diver

3.2.14 It is likely that birds use the scrub within the site for nesting, the site may also be used for foraging and feeding by a variety of common bird species.

Reptiles

3.2.15 Four native reptile species occur in South Wales, comprising common lizard, slow-worm, adder and grass snake. These four species are all afforded so-called 'partial protection' under the amended Wildlife & Countryside Act 1981, which prohibits the deliberate killing or injury of individuals. However, there is no direct protection extended to the habitats which support these species. All four common reptile species are listed as Priority Species in the UK BAP and its Welsh equivalent.

3.2.16 Common reptile species are difficult to detect in the field without recourse to targeted Phase 2 survey methods. Reliance is therefore placed on the subjective assessment of the habitats of the site with respect to their potential as dispersal, foraging and hibernating grounds for common reptiles, based on previous experience and on published information.

3.2.17 Two records exist for slow worm approximately 400m to the north east of the site (SEWBReC data 2017). The shortage of records is likely to be a result of under-recording rather than a true lack of reptiles.

3.2.18 The site is dominated by dense scrub with ruderal vegetation around the periphery. There is some evidence of fly tipping and rubble piles around the northern edge of the site which has the potential to provide suitable hibernacula for reptiles. Amenity grassland along part of the eastern and south eastern boundary provides the only visible interface between habitats. The site is considered fairly uniform and shaded by dense scrub providing limited basking opportunities for reptiles. There is some fly tipping and rubble piles present on the site. Due to the limited basking opportunities and habitat variety it is considered the site has low potential to support a population of common reptile species.

Amphibians

3.2.19 Five native amphibian species occur in South Wales, comprising common frog, common toad, smooth newt, palmate newt and great crested newt. The latter species is nationally rare and declining, and is afforded full protection under both UK and European legislation (see under bats, above), which also extends to the habitats which

support it. The other four species are not afforded any direct statutory protection, other than with respect to trade.

3.2.20 There are no records of great crested newt within 1km of the site. There are no records of other amphibian species within 1km of the site (SEWBReC data 2017).

3.2.21 Amphibians tend to prefer still waterbodies for breeding and foraging purposes. Due to a lack of close suitable aquatic habitat it is thought unlikely that amphibians are present within the site boundary. The scrub present within the site has some potential for overwintering purposes, however, due to the hard landscaping surrounding the plot, it is unlikely amphibians are present.

3.2.22 The presence of great crested newt within the site is considered unlikely due to the lack of nearby records, distance from the site to the nearest pond (>600m away) and the number of physical barriers between the pond and site in the form of roads and watercourses which would likely inhibit movement.

Invertebrates

3.2.23 Upwards of 30,000 species of invertebrates are recorded in Britain, occurring in every available habitat. About 40 species are afforded full statutory protection in the UK under either European or British legislation.

3.2.24 There are no existing invertebrate records from the site. There are pre-existing records for brown-banded carder bee and grayling approximately 200m to the south of the site along Bendrick Rock and 550m to the south east of the site for brown-banded carder bee and dingy skipper (SEWBReC 2017).

3.2.25 Overall, the site is assessed as being likely to support a wide range of common and ubiquitous invertebrate species, though it is unlikely to support any rare or protected species.

4.0 ECOLOGICAL EVALUATION

4.1 There is currently no nationally accepted system for the categorising of sites or features of biodiversity significance below the level of national value, criteria for which are set out by the former Nature Conservancy Council (1989, as amended). However, guidance for the identification of non-statutory sites of county significance (ie SINCs) is available for south Wales (WBP, 2008).

4.2 For the purposes of this study the habitats and features of the site have therefore been provisionally evaluated and graded in accordance with the categories set out in Appendix 2, and the ecological assessment of the site is shown on Plan 3.

International, National, County and District, High

4.3 No parts of the site are considered to fall into any of these categories.

Local Value

4.4 The habitats on site, comprising scrub, ruderal vegetation and amenity grassland are considered to be of some value to fauna such as foraging bats, birds, reptiles and invertebrates, but are unlikely to have any significance in this regard. These habitats therefore are considered to have no more than Local Value for wildlife.

Negligible Value

4.5 The areas of hardstanding within the site are of Negligible Value for wildlife.

5.0 ASSESSMENT OF DEVELOPMENT IMPACTS

5.1 Initial works within the site will entail site inspection works with the potential for the site to be developed further. Exact details of any future development proposals are not available at the time of writing.

5.2 It is understood that a parcel of land in the north of the site will be retained (see Plan 4) and is not included in any future development of the site.

5.3 The habitats of the development site are not considered to have more than Local Value to wildlife, and as such development of these are considered to be of relatively minor significance and any impacts not likely to extend beyond the immediate vicinity. Any impacts should as such be amenable to mitigation measures.

5.4 Mitigation measures for common reptile species and nesting birds will be required as part of this development. Although details of the development are not currently known, mitigation measures should be easily achievable as part of the development works

5.5 Notwithstanding the above, and on the basis of evidence currently available, it is concluded that the site could be developed without causing significant adverse impacts to wildlife, provided adequate mitigation and compensation is provided to protect the existing features of value and to avoid or minimise impacts to protected species. It is therefore considered that the proposed development of this site would not be unacceptably constrained by biodiversity issues.

6.0 RECOMMENDATIONS

6.1 In the event of the proposed redevelopment of this site proceeding, the following recommendations are made in order to minimise adverse impacts to wildlife features and protected species.

6.2 ***Statutory Requirements***

Reptiles

6.2.1 Mitigation for common reptiles will concentrate primarily on minimising the potential for causing the death and injury of individuals during any site clearance and construction operations, which is a statutory requirement.

6.2.2 It must be noted that clearance operations for reptiles are seasonally constrained, and cannot be carried out during the hibernation period which extends approximately from November to February inclusive. Work outside of this period considerably reduces the probability of vulnerable torpid and/or immobile hibernating individuals being encountered and potentially harmed.

6.2.3 As only part of the site is to be cleared of vegetation, suitable mitigation in this instance could probably be achieved through the use of 'species deterrence' measures to enable initial site investigation works and in the run-up to the commencement of construction – as detailed below.

- The staged removal of vegetation cover in the affected areas ahead of works commencing, together with the careful dismantling and removal of any potential refuge areas such as piled logs and large stones etc.,
- Any cleared areas are to be kept free of vegetation through continued strimming or chemical treatment of vegetation.

6.2.4 Any obvious refugia, such as planks of wood, large stones etc should be lifted by hand and checked underneath for reptiles. Any reptiles present, should be allowed to disperse into the adjacent habitats and the refugia should then be removed immediately from the site.

6.2.5 A reptile mitigation strategy will be required outlining details of the proposed species deterrence measures.

Birds

6.2.6 Any works affecting the scrub 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 should be preceded by a survey to ensure that no nesting birds are present. This restriction also applies to any other habitats which are found to support nesting birds, including ground-nesting species.

6.2.7 All contractors carrying out scrub clearance works will be warned of the *possible* presence of nesting birds and of their protected status. It should be clearly understood that in the event of any being found during works, all works should cease in the affected area until

appropriate expert advice has been sought.

6.3 *Non Statutory Requirements*

6.3.1 The landscape design of the developed site should include new habitats which are complimentary with those in the surrounding area. In particular, consideration should be given to the creation of new hedges of native species around the site periphery, which help to create green corridors through the site. Suitable species for planting in new hedgerows are given at Appendix 3.

6.3.2 Other habitats which would be desirable could include new areas of semi-natural neutral grassland swards, the latter dominated by low productivity grass species such as red fescue (*Festuca rubra*), crested dog's-tail (*Cynosurus cristatus*) and common bent, and containing around a 10-15% mixture of typical neutral grassland flower species.

6.3.3 All planting and seed stock used in habitat creation should be of local, or at least UK, provenance, and should comprise only native species which are indigenous to the locality (see Appendix 3 for suggestions).

6.3.4 Careful consideration should be given to the use of lighting within the developed site, as this can adversely affect activity by a variety of fauna, particularly foraging bats. Light spillage into any semi-natural habitats such as hedges, woodlands and streams etc, should be avoided. Brightness should be kept to the lowest permissible level in areas near to adjacent semi-natural habitats.

6.3.5 The installation of bird boxes in suitable locations in the site should be considered. These should be sited in such a manner that predators such as cats cannot reach them, and be at least 4m (preferably 5m) above ground level. The boxes should ideally be of 'woodcrete' construction (such as those manufactured by Schwegler Ltd), since these are much more robust and longer-lived than traditional wooden boxes and require less after-maintenance (see Appendix 4).

6.3.6 If fencing is required at any location within the site boundary, access underneath must be provided for small animals. The fencing used will either be of a post and rail design or have a minimum gap of 5 inches between the lowest edge of the fencing and the ground.

6.3.7 Gully pots, provided along the access roads, will be set a minimum of 5cm away from the road curb. This will ensure that any amphibian or reptile species moving through the site do not fall into the pots and become trapped.

Invasive species

6.3.8 Japanese knotweed is classed as invasive species and are listed under Schedule 9 of the Wildlife and Countryside Act 1981 which specifically prohibits the reckless or deliberate spreading of these plants, and appropriate measures are therefore required to minimise the risk of their spread during any works, and to achieve their eradication wherever possible. A Japanese knotweed control strategy should be implemented at the site.

7.0 REFERENCES

Biodiversity Reporting & Information Group (BRIG 2007) *Report on the Habitats & Species Review: A Report to the UK Biodiversity Partnership*. Joint Nature Conservation Committee, Peterborough.

Chartered Institute of Ecology and Environmental Management (2013) Guidelines for Preliminary Ecological Appraisal. CIEEM, Winchester.

Joint Nature Conservation Committee (JNCC 2007) *Handbook for Phase 1 Habitat Survey: a Technique for Environmental Audit*. NCC Peterborough.

Nature Conservancy Council (NCC 1989) *Guidelines for the Selection of Biological SSSIs*. NCC Peterborough.

Rodwell, J (Ed) (1991- 2000) *British Plant Communities*. Vols 1-5. Cambridge University Press.

Wales Biodiversity Partnership (WBP 2008) *Wildlife Sites Guidance Wales: A Guide to Develop Local Wildlife Systems in Wales*. Wales Biodiversity Partnership/Welsh Assembly Government.

Wales Biodiversity Partnership (WBP 2016) *Section 7: Interim List of Living Organisms & Habitats of Principal Importance for the Purpose of Maintaining and Enhancing Biodiversity in Wales*. Wales Biodiversity Partnership/Welsh Government.

APPENDIX 1: SPECIES RECORDED

All species recorded by DCE 2017, unless otherwise indicated:

Species	Common Name	Indicator Species					Other comments
Trees & Scrub		**W**	**NG**	**CG**	**MG**	**PIL**	
Acer pseudoplatanus	sycamore						IA
Buddleja davidii	buddleia						IA
Clematis vitalba	wild clematis						
Crataegus monogyna	hawthorn						
Pinus sp	pine sp.						
Rosa canina	dog rose						
Rubus fruticosus agg	bramble						
Salix sp	willow sp.						
Sambucus nigra	elder						
Herbaceous Plants							
Achillea millefolium	yarrow						
Agrostis capillaris	common bent						
Anagallis arvensis	scarlet pimpernel						
Aquilegia sp.	garden columbine						
Arctium sp.	burdock					PIL	
Arrhenatherum elatius	false oat-grass						
Artemisia vulgaris	mugwort						
Bellis perennis	daisy						
Blackstonia perfoliata	yellow-wort			CG			
Brassica sp	mustard sp.						
Calystegia sepium	hedge bindweed						
Carex otrubae	false fox sedge					PIL	
Carex pendula	pendulous sedge	W			MG		
Centaurea nigra	common knapweed		NG	CG			RCT LBAP
Centranthus ruber	red valerian						
Chamerion angustifolium	rosebay willowherb						
Cirsium arvense	creeping thistle						
Cirsium vulgare	spear thistle						
Clematis vitalba	traveller's -joy						
Dactylis glomerata	cock's-foot						
Daucus carota	wild carrot			CG			
Dipsacus fullonum	teasel					PIL	
Equisetum sp	horsetail species						
Fallopia japonica	Japanese knotweed						IA
Foeniculum vulgare	fennel						
Galium aparine	cleavers						
Geranium dissectum	cut-leaved crane's bill						
Geranium rotundifolium	round-leaved crane's-bill						
Heracleum sphondylium	hogweed						
Holcus lanatus	yorkshire fog						
Humulus lupulus	hop						
Hypericum perforatum	perforate St john's-wort		NG	CG			
Lathyrus pratensis	meadow vetchling		NG				
Leucanthemum vulgare	oxeye daisy		NG				

Lotus corniculatus	common bird's-foot trefoil		NG	CG		PIL	
Lychnis flos-cuculi	ragged robin				MG		
Malva sylvestris	common mallow						
Medicago lupulina	black medic			CG			
Myosotis sp	forget-me-not species						
Picris echioides	bristly oxtongue					PIL	
Plantago lanceolata	ribwort plantain						
Poa annua	annual meadow grass						
Poa trivialis	rough meadow-grass						
Potentilla reptans	creeping cinquefoil						
Prunella vulgaris	self heal						
Pulicaria dysenterica	common fleabane				MG		
Ranunculus repens	creeping buttercup						
Reseda alba	white mignonette						
Rumex crispus	curled dock						
Senecio jacobaea	common ragwort						
Silene latifolia	white campion						
Stachys sylvatica	hedge woundwort						
Tanacetum vulgare	tansy					PIL	
Trifolium campestre	hop trefoil			CG		PIL	
Trifolium pratense	red clover		NG				
Trifolium repens	white clover						
Tussilago farfara	colt's-foot					PIL	
Urtica dioica	common nettle						
Vicia sativa	common vetch						
Vicia sepium	bush vetch						
WBP (2008) Indicator Species Totals		1	6	7	3	8	

Key

Indicator Species (SWWSP 2004)

W - Woodland, NG - Neutral Grassland, CG - Calcareous Grassland, AG – Acid Grassland, PMG Purple Moor Grass and Rush Pasture, PIL – Post Industrial Land, TF Species-rich Tillage Fields and Margins

SINC Selection

Sites which support 1 primary species or 5 contributory species or habitats which support 8 neutral grassland, 8 calcareous grassland, 7 acid grassland, 12 Purple Moor Grass and Rush Pasture or 8 tillage field and margins indicator species should be considered for selection as a SINC. Post Industrial sites which support 20 or more indicator species from the combined post-industrial land, acid, neutral, calcareous and marshy grassland lists should also be considered for selection.

APPENDIX 2: DEFINITIONS OF SITE VALUE

International Value

Site carrying an internationally recognised designation such as Ramsar Site, World Heritage Site, Special Protection Area, Special Area of Conservation, Biosphere Reserve or Biogenetic Reserve, or:

Habitats: site supporting nationally significant areas of habitats of defined international community interest.
Species: site supporting nationally significant populations of species of defined international community interest.

National Value

Site meeting published Site of Special Scientific Interest (SSSI) designation criteria (NCC 1989), whether so designated or not.

Habitats: site supporting nationally significant areas of habitats of defined national rarity or interest.
Species: site supporting nationally significant populations or communities of UK Red Data Book, Nationally Notable or protected species (other than badger).

County Value

Site identified as a County Wildlife Site (CWS), Site of Importance to Nature Conservation (SINC) or similar at the county level (ie greater than district, borough or city level); meeting published CWS designation criteria (where these exist), but falling short of SSSI designation criteria, whether designated as a CWS or not.

Habitats: site supporting good examples of nationally threatened habitats, or extensive areas of habitats which are rare or unique in the county.
Species: site supporting large or strong populations or communities of nationally rare or protected species (other than badger), or of species which are rare in the county and uncommon nationally.

District Value

Sites failing to meet County Value criteria, but nevertheless supporting habitats, species or communities which appreciably enrich the ecological resource of the county, especially by virtue of their size or extent.

Habitats: sites supporting habitats uncommon in the county, small but unmodified fragments of nationally threatened habitats, or comprising extensive areas or systems of semi-natural habitats.
Species: sites supporting nationally rare species, or strong populations or communities of regionally uncommon species, which would not otherwise be present (ie they are critically dependant on the site characteristics).

Local Value

Habitats which fail to meet District Value criteria, but which appreciably enrich the ecological resource of the locality. This category can be further divided into:

- **High Local Value**: just failing to meet District Value Criteria; supporting species which are notable or uncommon in the county; or species which are uncommon, local or habitat-restricted nationally, and which might not otherwise be present in the area.

- **Local Value**: sites which are of ecological value only in the context of their immediate surroundings. Rare or uncommon species may occur but are not restricted to the site or critically dependant upon it for their survival in the area.

Sites failing to meet any of the above can be considered as being of '**Negligible**' ecological value.

APPENDIX 3: SUITABLE NATIVE SPECIES FOR PLANTING

Trees & Shrubs	
Betula pendula	Silver birch
Betula pubescens	Downy birch
Corylus avellana	Hazel
Crataegus monogyna	Common hawthorn
Cytisus scoparius	Broom
Fraxinus excelsior	Ash
Ilex aquifolium	Holly
Prunus avium	Wild cherry
Prunus spinosa	Blackthorn
Quercus robur	Pedunculate oak
Salix caprea	Goat willow
Salix cinerea	Grey willow
Sorbus aucuparia	Rowan
Ulex europaeus	Common gorse
Viburnum opulus	Guelder rose

Grassland Species	
Centaurea nigra	Common knapweed
Hypochaeris radicata	Common cat's-ear
Lathyrus pratensis	Meadow vetchling
Leontodon hispidus	Rough hawkbit
Leucanthemum vulgaris	Ox-eye daisy
Lotus corniculatus	Bird's-foot trefoil
Medicago lupulina	Black medick
Pilosella officinalis	Mouse-eared hawkweed
Plantago lanceoloata	Ribwort plantain
Primula veris	Cow-slip
Primula vulgaris	Primrose
Prunella vulgaris	Self-heal
Ranunculus acris	Meadow buttercup
Trifolium dubium	Least trefoil
Trifolium pratense	Red clover
Veronica chamaedrys	Germander speedwell
Vicia cracca	Tufted vetch
Vicia sativa	Common vetch

APPENDIX 4: BIRD BOX EXAMPLES

Schwegler 1B bird box

Schwegler 2H robin box

PHOTOGRAPHS OF SITE, June 2017

Northern boundary of site

North eastern boundary

South eastern boundary

Southern boundary looking east

Southern boundary looking west

Looking across the site from east to west

Looking across the site from south to north

Japanese knotweed see TN on Plan 2

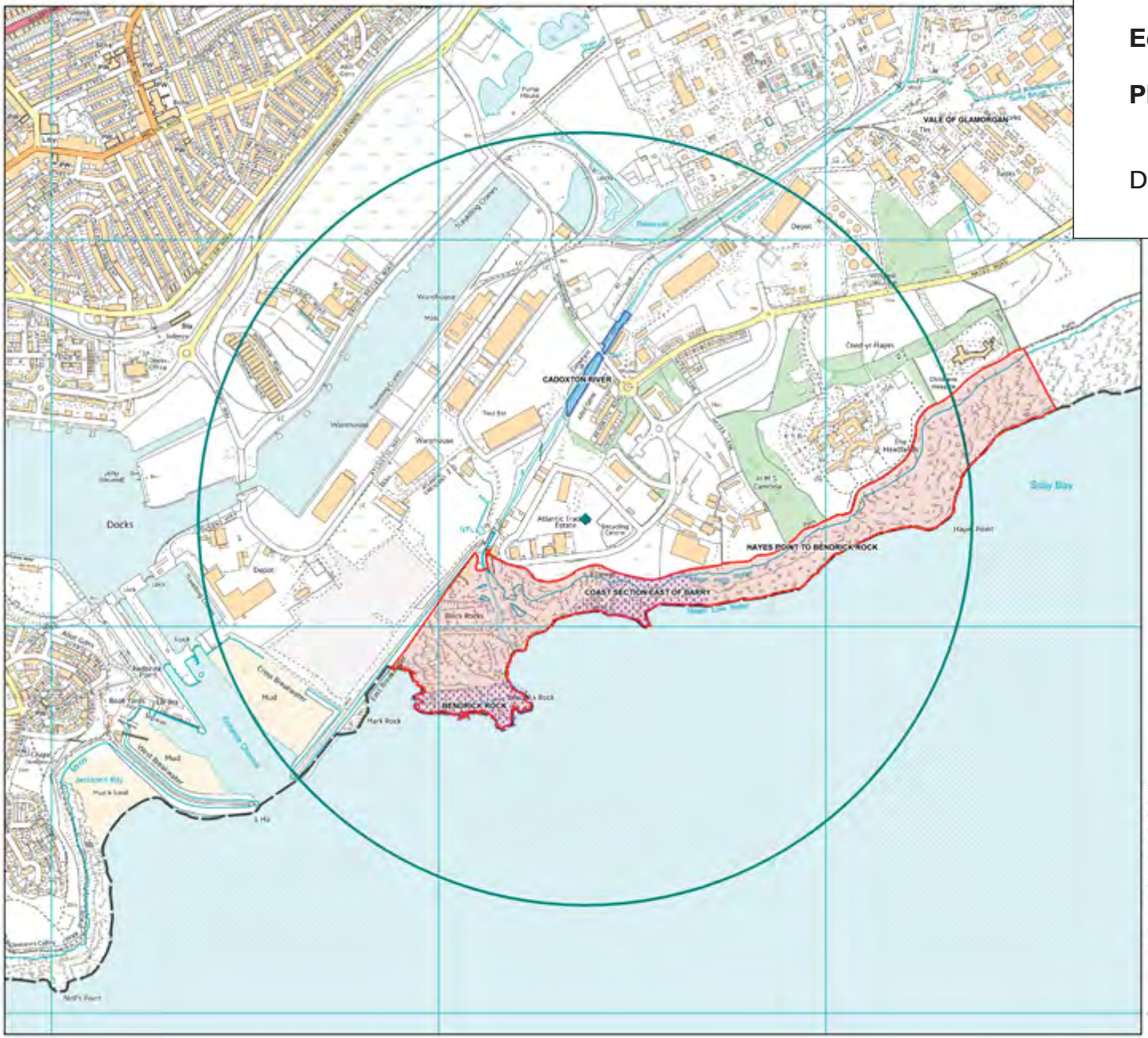
Fly tipping evident within site

Atlantic Trading Estate, Barry

Ecological Assessment

Plan 1: Site Location

DCE 949 NTS July 2017



Plot produced on 19/06/2017 on behalf of David Clements Ecology Ltd by

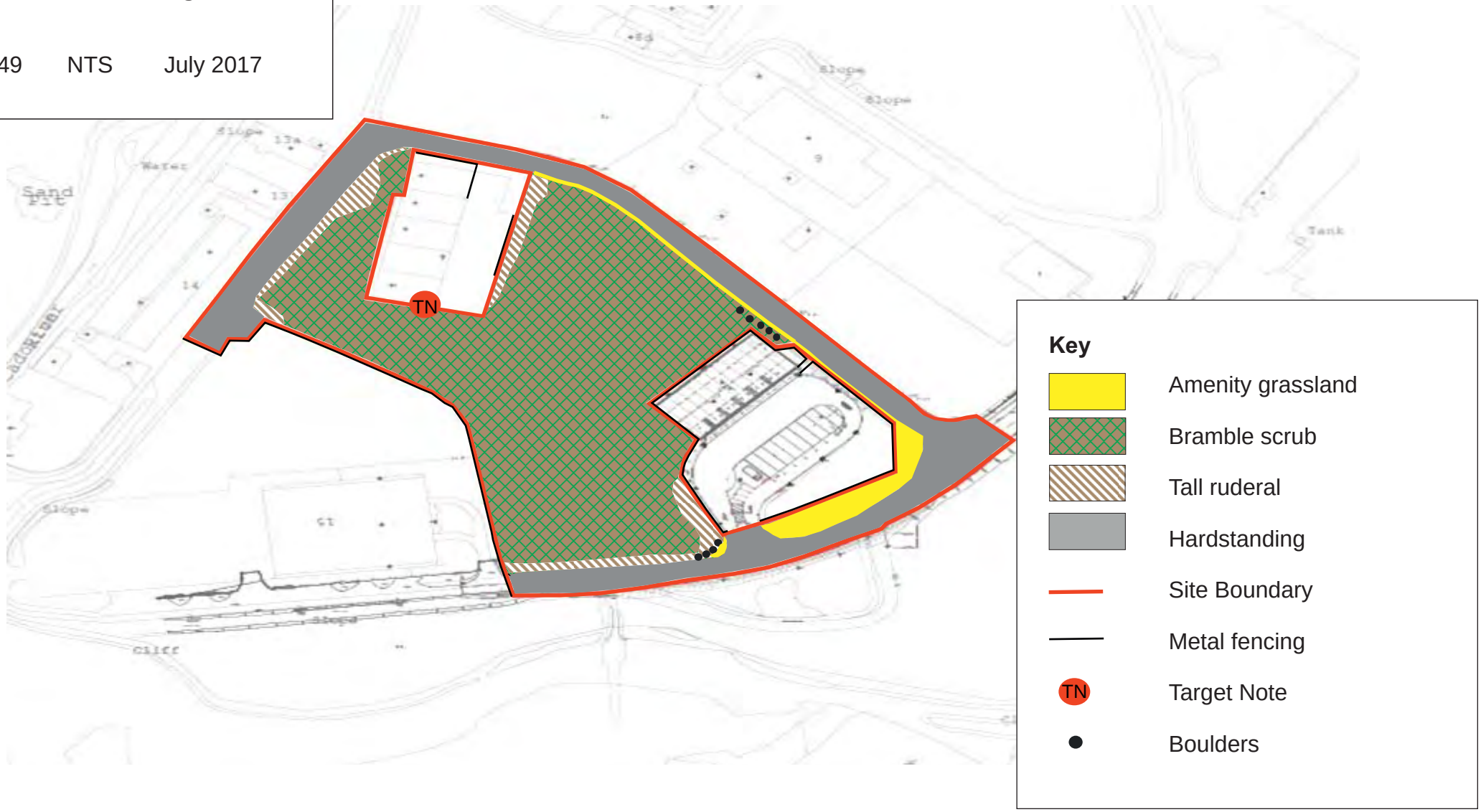
SEWBReC
SOUTH EAST WALES BIODIVERSITY RECORDS CENTRE
CANOLFAN GOFNODION BIOAMRYWIAETH DE DDWYRAIN CYMRU

Atlantic Trading Estate, Barry

Ecological Assessment

Plan 2: Habitats and Vegetation

DCE 949 NTS July 2017



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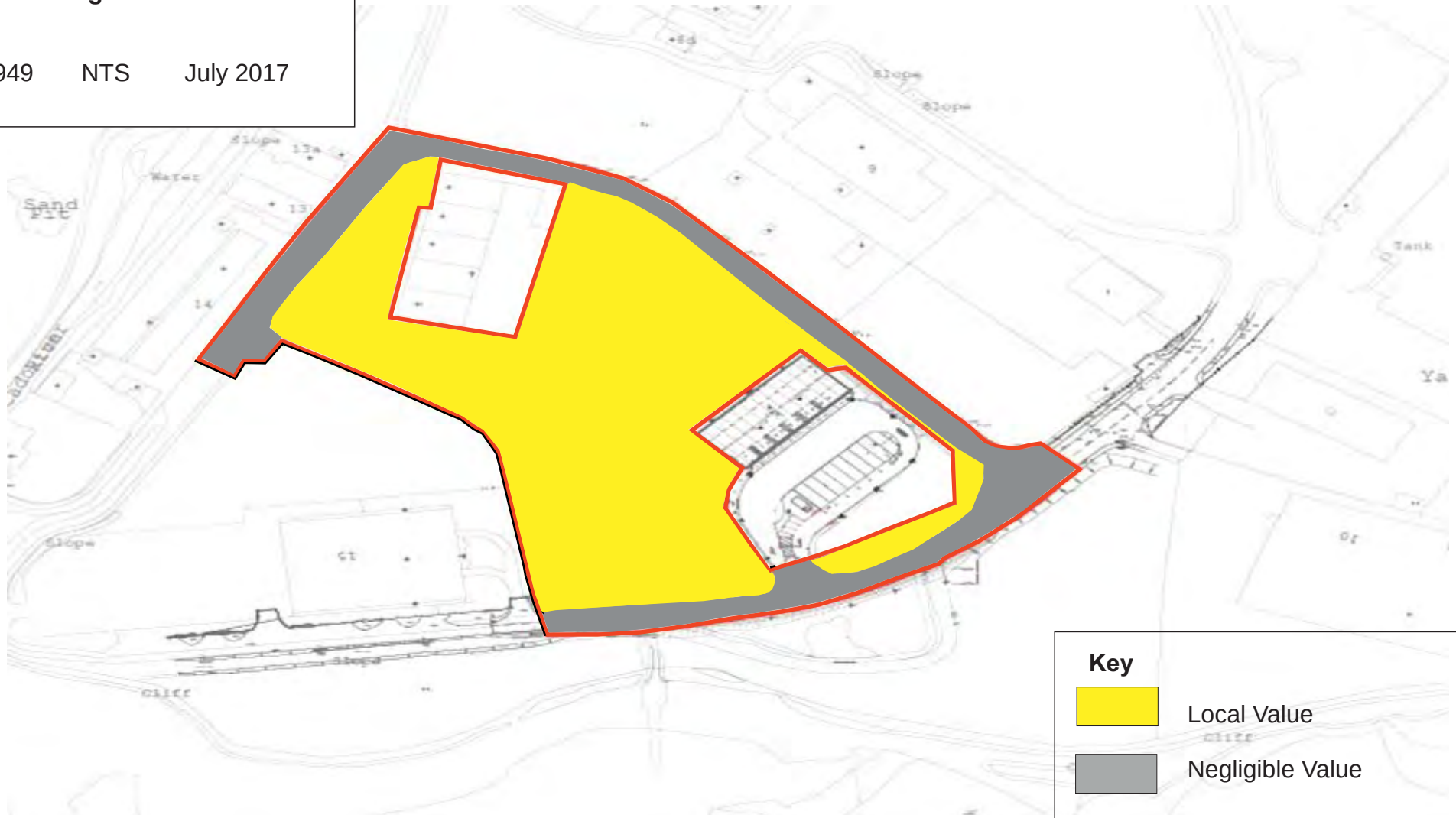
Ecological Assessment

Plan 3: Ecological Evaluation

DCE 949 NTS July 2017



Atlantic Trading Estate, Barry

Ecological Assessment

Plan 4: Areas to be retained/cleared

DCE 949 NTS July 2017