


NATURAL ENVIRONMENT TEAM				Date: 30.07.18		Version no. 1										
BIODIVERSITY MITIGATION PLAN																
Section A: Planning Application Details																
Planning authority Purbeck District Council		Planning Officer (if known)		Application number (if available)		OUTLINE	FULL	NET USE ONLY Planning decision								
						LDO										
Location Dorset Innovation Park Winfrith Newburgh, Wool, Dorchester				Proposed development (please state area in hectares where appropriate) The site covers approximately 40ha. It was previously a testing facility though now supports a large technology park consisting of buildings, hardstanding, species poor and species-rich grassland, ornamental planting and trees, native trees and woodland, scattered scrub, hedgerows, a stream (mostly in culvert) and a pond. The site was designated as an Enterprise Zone by the Local Enterprise Partnership (LEP) and was purchased by the Council in April 2017. The site is a key focus for economic regeneration of South Dorset. A Local Development Order (LDO) is to facilitate and guide re-development of the site. The LDO will have a 25 year lifespan. A number of buildings on the site have already been demolished; however, there are still active plots, which will remain in situ during the re-development of the site.												
Post code DT2 8ZB				Number of new units:												
Grid reference SY 82077 86912		Ecological consultant Julian Arthur		Ecological consultancy Tyler Grange LLP												
Section B: Details of Biodiversity Features Affected																
Protected species / BAP interests		Habitat feature (e.g. sett, pond, hedgerow) Type of bat roost (e.g. maternity, summer, hibernation, historic)				Population estimate and /or status										
"High interest" acidic grassland of local interest as defined by the DBCF		Development is proposed on c. 1.95ha of high interest grassland as identified in 2018.				Total of 3ha present on site.										
"Moderate interest" acidic grassland of local interest as defined by the DBCF		Development is proposed on c. 3.43ha of moderate interest grassland as identified in 2018.				Total of 4.5ha present on site.										
"Low interest" acidic grassland defined as Semi-improved poor grassland by the DBCF		Development is proposed on c. 8.3ha of low interest grassland as identified in 2018.				Total of 8.9ha identified on site.										
Woodlark (interest feature of the Dorset Heaths SPA)		Grassland and scrub habitat in the south west corner of the site adjacent to the Dorset Heaths SPA.				International ecological importance										
Badgers		Grassland, scrub, tree line				Negligible importance										
Bats		Buildings, scattered trees, tree line, pond				County importance										
Birds		Grassland, scrub, scattered trees and small pockets of woodland.				Up to district importance										
Invertebrates		Grassland, scrub edge.				Up to district importance										
Otter		River Win adjacent to the site, culverted watercourse within the site.				District importance										
Reptiles		Grassland, scrub, heathland edge				County importance										
Summary of survey findings (including / or roost description)																
Worst-case scenario	YES		NO	✓	DERC search	YES	✓	NO		N/A		SNCI (within 1km)	YES	✓	NO	

INSERT BULLET LIST

- Detailed surveys have confirmed the acid grassland is Lowland Dry Acid Grassland Priority Habitat comprises of the following NVC communities:
 - U1b *Festuca ovina* - *Agrostis capillaris* - *Rumex acetosella* grassland Typical sub-community; and
 - U1d *Festuca ovina* - *Agrostis capillaris* - *Rumex acetosella* grassland *Anthoxanthum odoratum* - *Lotus corniculatus* sub-community.
 The grassland has been separated into three categories, based on level of ecological interest as defined in the above table.
- Dorset Heathlands Ramsar Site and Dorset Heathlands Special Protection Area (SPA) are located adjacent to the southern boundary of the site. Dorset Heaths Special Area of Conservation (SAC) is located approximately 40m from the western boundary of the site. Winfrith Heath Site of Special Scientific Interest (SSSI) is located adjacent to the western site boundary and is part of the Dorset Heathlands SPA. The River Frome SSSI is located approximately 180m north of the site and Winfrith Site of Nature Conservation Interest (SNCI) is located adjacent to the western boundary of the site.
- Other habitats on site include buildings and associated infrastructure, planted woodland dominated by *Pine Pinus sp.* and scattered trees including poplar *Populus sp.*, birch *Betula sp.*, fruit trees *Prunus sp.*, willow *Salix sp.* and non-native species. Scattered trees are also present surrounding a pond to the east of the site, which, as a result of over-shading, is in sub-optimal condition, containing no aquatic vegetation. Scattered bramble *Rubus fruticosus agg.* and hawthorn *Crataegus monogyna* scrub combined with ornamental planting is present and surrounds many of the buildings.
- The bird surveys identified a breeding pair of woodlark, a species for which the Dorset Heathlands SPA is notified, in the south west corner of the site;
- No badger setts have been recorded within the site boundary; however, badgers signs have been recorded around the site, therefore they are known to be present within the locality;
- Surveys in 2017 have confirmed that bat roosts are not likely to be present in buildings or trees;
- Bat activity and static surveys in 2017 recorded an assemblage of bats with the woodland patches and heathland areas in the south of the site identified as the habitats of most importance to bats. Regular use by barbastelle, an Annex II species, was recorded here. Greater horseshoe bats were also recorded on the eastern boundary, close to the pond. Central site areas are well lit and species tolerant of such conditions, namely common pipistrelle only, were recorded;
- The River Frome SSSI is known the support protected fish species such as eel, salmon and brown trout so there is potential for these species to be present in the River Win, immediately to the east of the site boundary and in the tributary flowing along the southern site boundary;
- Four invertebrate surveys were undertaken on the site in May and June 2018. A total of 410 invertebrate fauna were identified on the site including three species listed as Specie of Principal Importance (SoPI); small heath butterfly, Cinnabar moth and Blood-vein moth. These were part of three favourable assemblages associated with the rich flower resource, open short sward and scrub edge;
- Otter spraints were recorded on the River Win in 2017 and 2018. The culverted watercourse within the site is extremely sub-optimal and unlikely to be of importance to otter. No evidence of otter holts has been recorded within the site;
- In 2017, low numbers of sand lizard and smooth were recorded in the west and the north of the site respectively and a low number of grass snake and good numbers of common lizard and slow worm were recorded in the scrub and grassland mosaic habitat present on the northern and southern boundaries of the site. The majority of the rest of the site is unsuitable for reptiles.

Section C: BATS ONLY: Existing Bat Roost / Feature

Roost type e.g. roof void, cavity, tree	N/A			Foraging/commuting habitat	YES	✓	NO	
Roost dimensions (m)	Void width		Void length		Void height (at apex)			
Roof aspect	N / S		NE / SW		E / W		SE / NW	

Section D: BATS ONLY: MITIGATION Summary (Please detail ENHANCEMENT in Section G)

TYPE OF MITIGATION

Permanent replacement		Modified roost		Temporary replacement roost		Bat boxes / bricks	
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TIMING OF WORKS TO ROOST (Please specify when works will take place by calendar month)

When works to existing roost can take place	N/A						
Completion of temporary roost provision (if applicable)	N/A						
Completion of permanent roost (if applicable)	N/A						
EPS Licence required	YES		NO		Low impact class licence required	YES	NO

DESCRIPTION OF ALTERNATIVE TEMPORARY REPLACEMENT ROOST. INCLUDE: POSITION E.G. EXISTING BUILDING, NEW STRUCTURE, TREE

Temporary roost type e.g. bat box							
Temporary roost void dimensions(m)	Void width		Void length		Void height (at apex)		
Roof aspect	N / S		NE / SW		E / W		SE / NW
Make of bat box			Number	Position			
N/A							

DETAILS OF PERMANENT ROOST

Replacement roost type e.g. roof void, bat box	N/A						
Replacement roost void dimensions(m)	Void width		Void length		Void height (at apex)		
Roof aspect	N / S		NE / SW		E / W		SE / NW
Make of bat box / brick to be installed			Number	Make of bat box / brick to be installed			Number

DETAILS OF MITIGATION – INCLUDING FORAGING HABITAT, METHOD STATEMENT, MONITORING/COMPLIANCE & DESCRIPTION OF BAT ROOST FEATURES. INCLUDE: PLAN SHOWING LOCATIONS OF ACCESS POINT(S), BAT BRICKS/BOXES, INTERNAL ROOSTING FEATURES

No roosts were identified during surveys, therefore impacts on bats during the construction phase are not anticipated, though if demolition of buildings occurs after 2019, survey data will be updated. If a roost would be affected then an EPS licence would be sought from Natural England. The most important habitats for foraging and commuting bats have been identified as the southern and northern vegetated boundaries of the site, which will be retained within the Council controlled parkland.

To minimise disturbance to bats during operation, where possible existing dark corridors (as shown on Plan 11286/P10a) will be retained at existing lux levels. Any potential changes limited to no more than 0.5 lux at 1m, 3m and 6m above ground level to ensure that light sensitive species identified using the site such as greater horseshoe and barbastelle can continue to do so.

Lighting design will be in line with the following principles (BCT, 2014):

- No lighting to be incorporated where not necessary;
- Where necessary, consider limiting the time the lights are illuminated;
- Use of narrow spectrum light sources;
- Use of light sources that emit minimal ultra-violet light; and

- Avoiding white and blue wavelengths of the light spectrum.

Section E: Other Protected Species (NOT BATS): Mitigation Summary

TYPE OF MITIGATION

Avoidance of harm through best practice	✓	Measures to deter individuals from location	✓	Capture and translocation of individuals			
Controlled destruction of place of shelter / breeding site		Replacement of place of shelter / breeding site		Habitat enhancement measures			
EPS/NE Licence required	YES	NO	✓	Low impact class licence required	YES	NO	✓

Section F: Other Protected Species (NOT BATS) & Habitats: Mitigation & Method Statement

Please list and quantify where possible all mitigation features that *must* be applied to mitigate impacts to protected species and habitats and will form a permanent part of the new development (e.g. number of bird boxes, length of native hedge planting, number or area of ponds). Include monitoring/compliance measures as appropriate.

General Mitigation

A Construction and Environmental Management Plan (CEMP) has been prepared for the LDO which controls the detailed mitigation strategies required to avoid or minimise impacts to important and/or protected ecological features during the construction phase, to be controlled by this BMP. The CEMP includes details regarding timing of works, requirements for ecological supervision (an Ecological Clerk of Works (ECoW) to be present for the creation of the parkland and grassland mitigation), pollution control requirements including control of dust and working methods.

For the duration of the LDO and thereafter, the site area will be enclosed by a security fence, with no access to the adjacent SPA/SAC. This will prevent recreational access to the protected habitats and, for instance, storage or dumping of materials.

An LPA approved Landscape and Ecological Management Plan (LEMP) will also be required to secure the future management of the development plots.

All information is shown on Plan 11286/P12 appended to the document.

Grassland

Grassland mitigation is summarised as follows:

- Maximising the biodiversity potential of retained grassland by optimal management. The illustrative masterplan as set out in the Appendix to the Statement of Reasons has been designed to retain some of the most important existing communities (refer to figure 11286/P09c);
- Where losses occur, compensation through either:
- translocation of the best grasslands to suitably prepared receptor sites within the LDO area;
- creation of conditions suitable for species such as bearded fescue, which prefers droughty, skeletal soils with little topsoil.
- Protecting important grassland retained within the parkland from impacts associated with construction (as detailed within the CEMP).

Table 1 below shows the summary of impacts on the grassland.

Table 1: Grassland type retained, translocated and residual loss

Grassland type	DBCF value	Total Area (ha)	Retained (ha)	Retained and enhanced (ha)	Translocated (ha)	Residual loss (ha)
Red	Local	3	1.05		1.95	0
Yellow	Local	4.5	0.22	0.22	1.05	3.01
Green	semi-improved poor	8.9	0.6	0.6	0	7.7
Total		16.4	1.87	0.82	3.0	10.71

The proposals show that all red grassland will be retained or translocated on site so there will be no net loss in this habitat type. It is assumed the red grassland will be unchanged in importance whether retained or translocated. Approximately 0.22ha of the yellow grassland will be retained and enhanced, and a further 0.85ha will be translocated within the site resulting in a total loss (once retained and retained/enhanced grassland accounted for) of 3.01ha loss. A total of 0.6ha of the green grassland will be retained and enhanced, and once this is accounted for, 7.7ha will be lost to the development.

Trees and Woodland

Retained trees and scrub will be protected as part of the proposed development in accordance with best practice guidance detailed in BS 5837:2012 'Trees in relation to design, demolition and construction'.

Fauna

During construction, impacts on fauna on site will be managed through the implementation of the CEMP. In summary:

Badger:

During construction, all excavations will be covered or left will suitable egress to allow animals to escape.

Bats:

All works will be undertaken during daylight hours and there will be no additional lighting used during the construction period. Pre-demolition checks of buildings will be undertaken.

Birds; Woodlark

All vegetation clearance will be undertaken outside of nest bird season (March to August inclusive). If this is not possible, vegetation will be checked by the ECoW prior to clearance. If an active nest is present, an exclusion zone will be set up and no clearance will take place until the young have fledged. If this is not possible, the ECoW will need to undertake regular surveys in the south west of the site; if breeding woodlark are identified, work involving heavy machinery will cease until the young have fledged as woodlark are a Schedule 1 of the Wildlife and Countryside Act 1981.

The majority of work required during construction is located in the centre of the site, away from the suitable woodlark habitat in the south east corner of the site. If possible, work in the south western quadrant of the site should be undertaken outside of the breeding bird season (March to August inclusive) to avoid disturbance to breeding pairs.

Fish:

All works to comply with the Environmental good practice on site guide (fourth edition) produced by CIRIA in 2015 to minimise the potential for pollution impacts on fish using the watercourse during construction.

Reptiles:

As the majority of suitable reptile habitat will be retained during construction, only a few individuals of common species are expected to be encountered during construction. The following principles will be implemented as detailed within the CEMP:

- Timing of clearance work in suitable habitats during the active season (March to September) so individuals are mobile (in some areas this may conflict with breeding bird season so checks by the ECoW will need to be undertaken);
- Initial staged clearance where necessary; down to 30cm and down to ground following being left overnight;
- Methodical soil strip in suitable areas; and
- Maintenance (regular cutting to height of 5cm) of the cleared areas such that they do not become suitable for reptiles.

All the work outlined above will be undertaken under the supervision of the ECoW. If at any point high numbers are encountered than anticipated, work will cease and an updated strategy will be produced. If any of the European Protected Species (smooth snake or sand lizard) are encountered, work will cease and advice will be sought from Natural England.

During operation, the majority of the areas supporting reptiles will be retained but it is important to note that grassland management for the acid grassland habitats (i.e. close-mown) is not compatible with most reptile species recorded. Plan 11286/P11 indicates areas where management of grassland for reptiles will need to be implemented. A 3m-5m strip adjacent to existing woodland and scrub will not be close-mown and allowed to become tussocky grassland, with management restrict to removal of scrub and saplings on an annual basis. Incorporation of 10 log piles and 5 specifically designed hibernacula will also be considered.

Section G: Enhancement Measures / On-site Compensation Measures (ALL SPECIES)

Please summarise the measures to be secured in accordance with National Planning Policy Framework and Section 40 of the Natural Environment & Rural Communities Act 2006. **PLEASE DO NOT INCLUDE MITIGATION IN THIS SECTION.**

Trees and Woodland

Non-native specimens will be removed, and groups of trees and shrubs typical of the local area will be planted to promote a heathland character to the development.

Pond

The existing pond will be retained on site and selective tree removal round the pond edges as well as removal of leaf litter and debris will allow marginal vegetation to colonise and enhance the existing feature, providing additional habitat for invertebrates, reptiles and birds. Additional marginal planting will also be undertaken.

Bats

Existing lighting east of the pond will be reduced in order to create a dark link between the site and stream corridor located immediately to the east of the site.

15 artificial bat boxes will be installed on suitable trees within the parkland in appropriate, dark locations to be confirmed by the ECoW. The box type will be the Schwegler Bat Box 2F. This general purpose box offers suitable roosting conditions for the range of crevice dwelling bat species recorded on site and within the local area, such as common and soprano pipistrelle. The bat boxes are to be installed as high as possible (at least 4m high), have an unobstructed approach and no lighting should be directed towards them. As temperature is known to be an important factor influencing the success of artificial roost boxes (BCT, 2016) the boxes are to be sited on the southern, south-eastern and southwest aspects of the trees to receive maximum amounts of sunlight and warmth. Monitoring of these bat boxes will be undertaken in Years 1, 3 and 5 (May – September).

Bat boxes should also be incorporated into development plots, dependent on their location and likelihood of use. The siting of the bat boxes should take into consideration surrounding habitats, with boxes fronting on to, or adjacent to, tree lines, scattered trees or waterbodies, and should avoid areas that will be heavily lit at night.

Other Fauna

Where it is required, new security fencing will allow access beneath for badger and other fauna.

A total of 20 general bird boxes (e.g. Schwegler 1B) would be incorporated on existing retained suitable trees within the parkland and should be considered on buildings in relation to individual plots.

Enhancement of retained habitat suitable for reptiles (with the addition of hibernacula/log piles as detailed above) so any reptiles identified during construction can be released into these areas

Development Plots

Additional enhancements for each plot will be captured using an enhancement and monitoring only BMP.

Section H: Specify compliance measure(s) (For cases requiring an EPS licence or of an area greater than 0.1ha include provision for a post construction compliance visit. For more simple cases provide photographic evidence of the completed mitigation measures. Send results of the post construction monitoring to the NET.)

Monitoring of the overall effectiveness of the management prescriptions in achieving the management objectives, will be undertaken as specified in the LEMP and summarised below. This will take the form of a site audit by a suitably qualified ecologist appointed by the Council to check that the measures have been undertaken and note if there are any issues on site.

- Grassland translocation: Monitoring of grassland sward diversity (fixed quadrats and photography) and success of mitigation. Send data to Council. Agree remedial works, if required, and modification to the LEMP. 1, 5 and 10 years after works completed
- Pond: Monitor aquatic and emergent vegetation; rake out excess growth to maintain 50% open water in autumn and retain on banks for 2 days before disposal. 3 yearly; remove vegetation in autumn
- Monitor bat boxes: Year 1,3 and 5; May to September by licensed bat worker
- In addition, the LDO and LEMP will be subject of a review on a 3 yearly basis for the 25 year duration of the LEMP

Should any issues with any of the prescriptions outlined above be identified (e.g. a required change to timing of management), NET and NE will be consulted in order to determine a course of action which will be outlined in in short report which will be provided to the Council, the tenants of the individual plots, NE and NET.

Monitoring of the measures implemented on individual plots will be outlined in each individual BMP which will be produced for the site.

Section I: Off-site Compensation (N.B. Off-site measures will not be covered by planning condition)

Residual biodiversity losses may occur due to loss of nesting habitat, rough grasslands, hedgerows etc. and maybe addressed by an appropriate funding contribution or equivalent measures on another site.

After on-site mitigation will the scheme result in a residual loss to biodiversity? NB. If 'yes' please submit details of compensation to the local planning authority.	YES	X	NO	
Does the development fall between 400m-5km of the Dorset Heaths SAC /Dorset Heathlands SPA/Ramsar?	YES	X	NO	

Section J: Declaration (To be completed by applicant PRIOR TO SUBMISSION)

I hereby confirm that the measures set out in this Biodiversity Mitigation Plan will be completed in full including where stated above an application for an EPS/NE/Low Impact Class Licence.

Name of APPLICANT/AGENT	PRINT	SIGN	DATE
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- **Please read the published guidance for completing BMP forms and ensure it is fully complied with.** Please visit www.dorsetforyou.com to access the Dorset Biodiversity Appraisal Protocol guidance sheet for consultants.
- Please ensure **ALL** Biodiversity Mitigation Plans are submitted with ecology reports (unless agreed otherwise with the Natural Environment Team prior to submission) to net@dorsetcc.gov.uk
- Please expand boxes above or use a continuation sheet. Please ensure **ALL** pages and continuation sheets are dated and signed by the applicant or planning agent **PRIOR** to submission.
- Payment **MUST** be made with submission. For charges please visit www.dorsetforyou.com
- Data submitted may be extracted by Dorset Environmental Records Centre.