

Evidence Base for Planning Application

Project Information & Site Context

Site Name & Location	Dungeness A Power Station, Kent	Grid Reference	TR 084 167
Client Name	NRS and Mitie Group PLC	Report Number	RT-MME-181303-01
Site Area (ha)	Boilers Down (Red Line Area): 4.09 Middle Shingle (Blue Line / Offset Area): 0.33	Topography	The site is located at an altitude of approximately 5.8 m Above Ordnance Datum (AOD) on an extensive shingle foreland. Beyond the site, ground levels remain close to sea level for considerable distances inland.
Scope of the Survey and Rational for Offsetting Approach.	<p>In October 2024, Mitie Group PLC on behalf of NRS commissioned Middlemarch to provide further biodiversity support, associated with the proposed Boilers and Ancillary Plant Removal Project (hereafter referred to as the 'Boilers Down' Project) at Dungeness A Power Station, Kent</p> <p>Middlemarch has previously undertaken several assessments for the whole of the Dungeness A site which underpin this report, these include:</p> <ul style="list-style-type: none"> ● 2022 Preliminary Ecological Appraisal (Report RT-MME-158574-01-Rev A), and, ● 2024 update Baseline Ecological Walkover Survey with Metric Calculation (Report RT-MME-180359-01 REV A). <p>Assessments have also been undertaken by Middlemarch to inform planning applications associated with the progression of decommissioning activities at the site; namely the building/relocation of several facilities within the Dungeness site boundary fence and the upgrade of some areas of road to support heavier loads. These assessments comprise:</p> <ul style="list-style-type: none"> ● Preliminary Ecological Appraisal (RT-MME-158271-01 Rev B); ● Biodiversity Metric Assessment (RT-MME-158271-02 Rev C); and, ● Biodiversity Enhancement Management Plan (RT-MME-158271-03 Rev C). <p>The 2024 update Baseline Ecological Walkover Survey with Metric Calculation (Report RT-MME-180359-01 REV A), updated the extent and condition of the baseline habitats, and biodiversity value, across both the whole Dungeness A site, as well as specifically in the Boilers Down project area. This assessment was due to extensive areas of the site being developed since the original 2022 Preliminary Ecological Appraisal (Report RT-MME-158574-01-Rev A) and works undertaken as part of the Waste Planning project.</p> <p>The scope of the survey did not involve recording the presence, or likely presence, of protected species within the development area. Nor are any recommendations provided within this report (aside from those to ensure the delivery of the target biodiversity uplift) in relation to wider ecological affects that may occur as part of the development. This information is proved the WSP Preliminary Ecological Appraisal (April 2024, PEA ref: 62281423ECO_001).</p>		

It is understood that the Boilers Down project will result in a net loss in biodiversity value within the applications red line boundary, and that it also will need to deliver the Biodiversity Gains Objective (i.e., +10% to site biodiversity value). To ensure that the project will deliver no-net loss, and an appropriate measurable net gain, it will require a biodiversity offset. This offset will be provided within a 0.33 ha area which lies within the Dungeness, Romney Marsh and Rye Bay SSSI.

Although the delivery of a biodiversity offset within a statutory site would not usually occur, it is considered that the following exceptional ecological circumstances are relevant for the LPA to consider.

- **Uniqueness of habitat:** It is considered that the coastal vegetated shingle within the Dungeness cusate foreland represents a unique habitat within England. Except for several small areas of shingle within the Dungeness A and B sites, all of this habitat on the foreland lies within one or more statutory site. So far as is possible, any biodiversity losses should be replaced by like for like habitat creation and enhancement. Due to the nature of coastal vegetated shingle (being formed over an extensive period by both tidal processes and storm-surges) it is not practically possible to create this habitat type, making the biodiversity enhancement of existing areas (currently in poor or moderate condition) the only option.
- **Additionality over and above statutory SSSI condition attainment:** Section 28G of the Wildlife and Countryside Act 1981 (as amended) imposes a general duty on public bodies (such as the NDA and NRS) and statutory undertakers to take reasonable steps to further the conservation and enhancement of SSSIs; supporting the goal of achieving favourable conservation status. The proposed biodiversity offset area is sited within Parcel 52 of the Dungeness, Romney Marsh and Rye Bay SSSI which was recently determined by Natural England as being in favourable conservation status (24/09/2021). As such, there is no outstanding legal obligation on the offset area's landowners or managers (NDA and NRS respectively) compelling them to enact habitat management works on the offset site (with a purpose of enhancing its biodiversity value). It is therefore suggested that should NRS offer to measurably enhance the biodiversity value of the offset area, it is a voluntary action and so should be viewed as delivering additionality.
- **Spatial relation to the development site:** It is possible that the development's biodiversity losses could be offset via the purchase of a suitable amount of 'very high' distinctiveness biodiversity or statutory credits; but due to the national scarceness of the former and geographic uncertainty of the delivery location of the latter, this would be highly likely to result in local and regional biodiversity loss. If either a habitat bank or statutory credits were to be used, the biodiversity uplift would potentially occur several hundred miles away from the development site and it would be unlikely to involve the creation or enhancement of coastal vegetated shingle .

The purpose of this report is to provide baseline data for planning purposes, by detailing the habitat types, extent, current condition and current biodiversity values within both the Boilers Down development area (Red Line) and the biodiversity offset area, also referred to as 'Middle Shingle' (Blue Line).

Middlemarch have also been commissioned to prepare a Biodiversity Statement and Metric Assessment (RT-MME-181303-02) for the project, and to consult with Natural England (via their Discretionary Advice Service) to provide further guidance relating to the usage of the Middle Single area of the Dungeness, Romney Marsh and Rye Bay SSSI for the delivery of a biodiversity offset.

Methods				
Field Survey	<p>An ecological walkover survey of the site was undertaken on 14th and 15th August 2024 by Dr Amanda Flint, Nature Based Solutions Manager, during which the location and extent of all habitat types present within the site were noted. During the survey, a Habitat Condition Assessment was carried out to determine the ecological status of each habitat recorded.</p> <p>Habitat areas within the site that were smaller than the minimum mappable area of 25m² (including kerb-side vegetation) were omitted from the assessment and assessed as hardstanding.</p> <p>Field data for each habitat was input into The Statutory Biodiversity Metric by Rachel Baylis (Biodiversity Consultant), using the Statutory Biodiversity Metric User Guide¹. Each habitat recorded within the site was assigned a score for 'Distinctiveness', 'Condition' and 'Strategic Significance'.</p>			
Weather Conditions	Temperature (°C)	Cloud Cover (%)	Wind Force (Beaufort)	Precipitation
	17	5%	F2	NIL
Constraints	The recommended timeframe for completing a Phase 1 Habitat Survey is April – September, consequently there were no constraints assigning habitats to Phase 1 or UK Hab habitat types.			

Results					
Overview of Habitats and Baseline Biodiversity Value within the 'Boilers Down' Red Line Area					
Habitat	Area (ha)	Distinctiveness (Score)	Condition (Score)	Strategic Significance (Score)	Baseline Value (BU)
Area Based Habitats					
Building	0.80	Very Low	N/A	Low	0.00
Hardstanding	2.15	Very Low	N/A	Low	0.00
Coastal Vegetated Shingle	0.24	High	Poor	Medium	1.58
Unsealed Surface	0.90	Very Low	N/A	Low	0.00
Totals	4.09	-	-	-	1.58
Overview of Habitats and Baseline Biodiversity Value within the 'Middle Shingle' Blue Line / Offset Area					
Habitat	Area (ha)	Distinctiveness (Score)	Condition (Score)	Strategic Significance (Score)	Baseline Value (BU)
Area Based Habitats					
Coastal Vegetated Shingle	0.33	High	Poor	Low	1.98
Totals	0.33	-	-	-	1.98

¹ Defra (2024). *The Statutory Biodiversity Metric – User Guide*. Available: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>

Recommendations

The recommendations below are based on Middlemarch's current understanding of the project. If works are changed in any way these recommendations will need to be amended if appropriate.

R1	<p>Ecological Management and Monitoring Plan (EMMP): An Ecological Management and Monitoring Plan should be produced, setting out the detailed management of all offsite (blue line) compensation and enhancement measures. The EMMP should detail the aims and objectives of the enhancement measures, provide detailed management prescriptions sufficient to reach the targeted habitat conditions, and include both a schedule of works and a monitoring schedule. The EMMP should consider both management and monitoring across a 30-year span and identify the organisation/s responsible for their delivery.</p>
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Quality Assurance

Date	Version	Author	Checked & Approved By
02/12/2024	FINAL	Rachel Baylis BSc (Hons) (Biodiversity Consultant)	Chris Walsh MSc (Hons) (Natural Capital Solutions Leader)

Photographs



Plate 1: Coastal vegetated shingle area within the main site to the south of the Reactor building

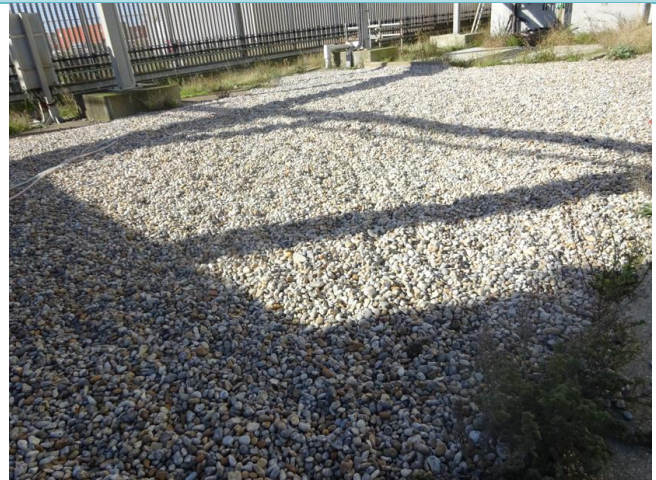


Plate 2: TN10 construction type pebbles akin to oyster pebbles



Plate 3: Artificial unvegetated unsealed surface, TN15

Plate 4: Artificial unvegetated unsealed surface, TN15



Plate 5: Path side patches of vegetated shingle (unmapped due to size of patches)

Plate 6: Example of densely covered vegetated shingle along roadsides



Plate 7: Hardstanding areas to the west of TN15

Plate 8: Vegetated shingle within the blue line enhancement area



Plate 9: Vegetated shingle within the blue line enhancement area

Plate 10: Vegetated shingle within the blue line enhancement area



Plate 11: Vegetated shingle within the blue line enhancement area

Plate 12: Vegetated shingle within the blue line enhancement area

Appendix 1

The following tables include full habitat descriptions and summarise the condition assessment for habitats using Natural England (2024)².

² Defra (2024). *Statutory Biodiversity Metric Condition Assessments*. Available: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>

Area Habitat				Condition Sheet Criteria Score															Total Score	Condition Assessment	
Polygon / Line Ref.	JNCC	UK Hab (Field Key)	Habitat Description	Condition Sheet Used	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13				
Middle Shingle (Blue Line / Offset Area)																					
TN5	H3 Shingle above high tide mark	Coastal vegetated shingle s3b	Area of vegetated shingle to the southern and western sides of the main access road. A mosaic of scrub, bare shingle and a smaller, but yet still relatively large area of lichen turf <i>Cladonia</i> sp. Species recorded included gorse <i>Ulex europaeus</i> , prostrate broom <i>Cytisus scoparius</i> subsp. <i>maritimus</i> , red valerian <i>Centranthus ruber</i> , wild carrot <i>Daucus carota</i> , viper's-bugloss <i>Echium vulgare</i> , red fescue <i>Festuca rubra</i> and perennial ryegrass <i>Lolium perenne</i> , sweet vernal-grass <i>Anthoxanthum odoratum</i> , moss <i>Sphagnum</i> sp., bramble <i>Rubus fruticosus</i> agg., seaside fleabane <i>Erigeron glaucus</i> , bristly oxtongue <i>Helminthotheca echioides</i> , cat's-ear <i>Hypochaeris radicata</i> , traveller's-joy <i>Clematis vitalba</i> , sea plantain <i>Plantago maritima</i> , buck's-horn plantain <i>Plantago coronopus</i> , common sorrel <i>Rumex acetosa</i> , hawk's-beard <i>Crepis</i> spp., yellow horned-poppy <i>Glaucium flavum</i> , cock's-foot <i>Dactylis glomerata</i> , dandelion <i>Taraxacum officinale</i> agg., carline thistle <i>Carlina vulgaris</i> , great burnet <i>Sanguisorba officinalis</i> , wood sage <i>Teucrium scorodonia</i> , mouse-ear hawkweed <i>Pilosella officinarum</i> , common sorrel, dog rose <i>Rosa canina</i> and flat pea <i>Lathyrus sylvestris</i> . Since the 2022 survey this area has not been actively managed resulting in the grass species beginning to dominate the sward. This area is within a SSSI.	Coastal (1)	F	F	F	F	F	P	P	P								4	Poor

Area Habitat				Condition Sheet Criteria Score																
Polygon / Line Ref.	JNCC	UK Hab (Field Key)	Habitat Description	Condition Sheet Used	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	Total Score	Condition Assessment	
Boilers Down (Red Line Area)																				
N/A	J3.6 Buildings	Buildings u1b5	A series of buildings were present in the area associated with the workings of the Magnox Dungeness site. Inspections of the individual buildings were not undertaken as part of the Preliminary Ecological Appraisal. These areas were generally devoid of vegetation.	N/A																N/A
N/A	J5 Hardstanding (other habitat)	Developed land; sealed surface u1b	A series of tarmac and concrete surfaces are present throughout the area and associated with the workings of the Magnox Dungeness site.	N/A																N/A
TN10	J4 Bare Ground	Artificial unvegetated unsealed surface u1c	An area barren of vegetation comprising construction type pebbles akin to oyster pebbles rather than coastal vegetated shingle, these pebbles are larger and white and grey shaded.	N/A																N/A
TN14	J3.6 Buildings J5 Hardstanding (other habitat)	Buildings u1b5 Developed land; sealed surface u1b	Area within the Radiation/Reactor Controlled Area (RCA). Predominately buildings and hardstanding associated with the workings of the Magnox Dungeness site.	N/A																N/A
N/A	H3 Shingle above high tide mark	Coastal vegetated shingle s3b	Within the main area of the site, a number of areas of vegetated shingle are located around the buildings and hardstanding. Species recorded include red fescue, perennial ryegrass, red valerian, viper's bugloss, cat's-ear, buck's-horn plantain, hawk's-beard, hedge mustard <i>Sisymbrium officinale</i> , prostrate broom, bristly oxtongue, yellow horned-poppy, bramble, carline thistle, sea mayweed <i>Tripleurospermum maritimum</i> , wood sage, salad burnet <i>Poterium sanguisorba</i> subsp. <i>sanguisorba</i> and common mallow <i>Malva sylvestris</i> . Since the 2022 survey this area has not been actively managed resulting in the grass species beginning to dominate the sward.	Coastal (1)	F	F	F	F	F	P	P	P							4	Poor
TN15	J4 Bare Ground	Artificial unvegetated unsealed surface u1c	Area of previous demolition of buildings and hardstanding.	N/A																N/A

Key:

P – Criteria passed

F – Criteria failed

Coastal Condition Assessment

Passes 7 or 8 of 8 criteria including essential criterion 1 = Good (3)

Passes 5 or 6 of 8 criteria; OR Passes 7 of 8 criteria excluding essential criterion 1 = Moderate (2)

Passes 0, 1, 2, 3 or 4 of 8 criteria = Poor (1)

Middlemarch Drawing C181303-01-01: 2024 Habitat Map, Red Line Area and Offset Area,
Dungeness A Power Station, Kent

Legend

- - - Boiler's Down (Red Line Area)
- - - Middle Shingle (Blue Line / Offset Area)
- Sea wall / shingle bund
- Artificial unvegetated unsealed surface
- Building
- Dense scrub
- Hardstanding
- Vegetated shingle
- Target note - habitat parcel



Project	NRS Dungeness		
Drawing	Phase 1 Habitat Map (Red Line Area and Offset Area)		
Client	Mitie Group PLC on behalf of NRS		
Drawing Number	C181303-01-01	Revision	00
Scale @ A3	1:2,500	Date	November 2024
Approved By	RB	Drawn By	RP/CD



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