



# Nuclear Restoration Services



## Dungeness A Site Environmental Management Plan

ISSUE 19

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## EXECUTIVE SUMMARY

In October 2005, Magnox Electric Ltd applied to the Health and Safety Executive (HSE) for consent to decommission Dungeness A Nuclear Power Station in accordance with the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended). An environmental statement accompanied the application.

After a period of public consultation, the HSE duly granted consent in July 2006. Conditions were attached to the consent, including a condition relating to the production and maintenance of an Environmental Management Plan covering the on-going mitigation measures to prevent, reduce and, if possible, offset any significant adverse environmental effects of the decommissioning work.

This document is the 19<sup>th</sup> issue of the Dungeness A Site Environmental Management Plan and provides an update on the activities undertaken so far, in addition to the details of the agreed mitigation measures. This document will be re-issued annually as agreed with the Health and Safety Executive.

As Site Director for Dungeness A, I look forward to a successful decommissioning project and on behalf of NRS (previously Magnox Ltd.); I give my commitment to minimising any adverse effect on the environment as a consequence of our decommissioning operations.



Ian Cuthbert

Site Director

Dungeness A

**1<sup>st</sup> October 2024**

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## 1. INTRODUCTION

Dungeness A Nuclear Power Station generated electricity until the 31<sup>st</sup> December 2006. Dungeness A Site (hereafter referred to as Dungeness A) then, in accordance with Government Policy, entered a period of decommissioning. During this time the fuel, plant and buildings associated with electricity generation will be systematically removed. Before removal they will be maintained in a safe condition. Prior to commencement of this work Magnox Electric Ltd, the Licensee of the Site at the time (the licence was transferred to Magnox South Ltd in October 2008, to Magnox Ltd in 2011, and then to NRS in 2024), was legally required to seek consent from the Health and Safety Executive (HSE) to carry out the decommissioning project.

An application was therefore made to the HSE for consent to carry out the decommissioning project at Dungeness A in October 2005. In support of this application an Environmental Statement<sup>1,2</sup> was provided which assessed the impacts of the project on the environment. Following an extensive public consultation the HSE granted consent to carry out the decommissioning project at Dungeness A in July 2006, subject to certain conditions (listed in Appendix 1). Condition 2 requires the licensee to prepare an Environmental Management Plan (EMP) which shall:

- list the mitigation measures that are already identified in the Environmental Statement and evidence submitted (to the HSE) to verify information in the environmental statement;
- list the options to implement work activities where mitigation measures may be required but where selection of an option will only be possible in the future; and
- list the work activities where mitigation may be required but where assessments to identify mitigation measures will only be possible in the future.

It is a requirement of the conditions attached to the consent to describe the effectiveness of the mitigation measures over time. This EMP is therefore a living document that will be periodically reviewed and revised throughout the decommissioning project. The EMP will be reissued annually or at other intervals agreed with the HSE.

Further information on the HSE's decision to grant consent to decommission Dungeness A can be found in their decision report, which describes the content of the conditions attached to the Consent and the main reasons and considerations for the decision. Requests for copies of this document should be made directly to the HSE.

Any queries relating to decommissioning activities at Dungeness A or requests for copies of this EMP should be addressed to:

The Site Director  
Dungeness A Site  
Romney Marsh  
Kent  
TN29 9PP

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1 European Council Directive 85/337/EEC (as amended) sets out a framework for the assessment of the effects of certain public and private projects on the environment. The Directive is implemented in Great Britain for decommissioning nuclear reactor projects by the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999

2 British Nuclear Group (2005) Dungeness A Nuclear Power Station Environmental Statement (in support of the application to decommission Dungeness A Nuclear Power Station as required by Statutory Instrument 1999 No. 2892: Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999)

In addition to the submission of this EMP to the Health and Safety Executive (HSE), NRS will also provide copies to the:

- Dungeness Site Stakeholder Group; and
- The Nuclear Decommissioning Authority (NDA).

This EMP can be viewed at the following locations:

- **Cheriton Library**, 64 Cheriton High Street, Cheriton, Folkestone, Kent CT19 4HB;
- **Folkestone Central Library**, 2 Grace Hill, Folkestone, Kent, CT20 1HD;
- **Hythe Library**, 1 Stade Street, Hythe, Kent, CT21 6BQ;
- **Lydd Library**, The Old School, Skinner Road, Lydd, Romney Marsh, Kent, TN29 9HN;
- **Hastings Central Library**, Brassey Institute, 13 Claremont, Hastings, East Sussex, TN34 1HE;
- **Tenterden Library**, 2 Tenterden Gateway, Manor Row, Tenterden, Kent, TN30 6HP;
- **New Romney Library**, 82 High Street, New Romney, Kent, TN28 8AU;
- **Ashford Central Library**, Gateway Plus 1AS, Church Road, Ashford, Kent, TN23 1AS (3 copies, 2 marked up for mobile libraries);
- **Rye Library**, 30 High Street, Rye, East Sussex, TN31 7JF;
- **Folkestone and Hythe District Council**, Civic Centre, Castle Hill Avenue, Folkestone, Kent, CT20 2QY; and
- **Kent County Council**, County Hall, Maidstone, Kent, ME14 1XQ.
- Note: Dymchurch Library is now closed but it is served by a mobile library. Two extra copies are sent to Ashford Central Library for the mobile libraries that operate from here.
- The EMP is also available through the NRS pages of the .gov website

## 2. SCOPE OF THE ENVIRONMENTAL MANAGEMENT PLAN

This EMP details the mitigation measures to prevent, reduce and, where possible, offset any significant adverse effects on the environment throughout the decommissioning of Dungeness A. It also includes measures that, although not associated with significant adverse effects, are nevertheless proposed.

A revised decommissioning strategy was inserted into the Lifetime Plan baseline for Dungeness A to commence during the financial year 2016/17. This new strategy was approved by both the NDA (Nuclear Decommissioning Authority) and the Office for Nuclear Regulation (ONR). As a result the decommissioning programme is now divided into three phases as follows:

- Deferral Period Preparations
- Deferral Period
- Final Site clearance

These phases are explained in Box 1.

**Note: The “Deferral Period” was previously known as the “Care & Maintenance” Period.**

This EMP is similarly structured around these three phases. This is predominantly because mitigation measures may change in the future in light of experience and developing technologies. Where mitigation measures are still to be identified, developed in more detail, or require changes, these will be described in subsequent issues of the EMP together with the reasons for any changes made. Any changes will be subject to the Consent and associated Conditions issued by the HSE on 13/7/2006 (See Appendix 1).

Environmental impacts were grouped into topic areas in the Environmental Statement, as are the mitigation measures described in this EMP (see Box 2).

### Box 1. Summary of the main decommissioning phases

- Deferral Period Preparations (DPP) is the first phase of decommissioning and is currently forecast to be complete by 2033. During this phase the focus is on hazard reduction such as asbestos thermal insulation removal (completed in 2021), passivation and storage of Intermediate Level Waste (ILW) and preparation of the site plant and systems for entry into the Deferral Period.
- In 2020, the Lifetime Plan Baseline was updated to include a revised strategy for removing the Boilers, Boiler Annexes, Boiler Drum Houses, Blower Halls and Central Control Block prior to entering the Deferral Period.
- Under the site’s current Lifetime Plan, the Deferral Period is expected to be 60 years. It will be a quiescent period with minimal staffing and the Site maintained in a safe, secure and environmentally compliant state, with periodic inspections and walk downs.
- Final Site Clearance will be the final stage of decommissioning activity on Site. This will involve removing the remaining structures and the clearance of any residual radioactivity to the appropriate standards, and returning the site to shingle. It is anticipated that this phase will last approximately 10 years.
- However, under the NDA’s revised 10 year strategy issued in April 2024, the NDA estate is now moving towards a rolling programme of decommissioning across the fleet with a mix of site specific strategies.



### Box 2. Environmental Assessment Topics

- Air Quality and Dust;
- Archaeology and Cultural Heritage;
- Ecology;
- Geology, Hydrogeology and Soils;
- Landscape and Visual;
- Noise and Vibration;
- Socio-Economic;
- Surface Waters; and
- Traffic and Transport.

In addition to the mitigation measures, a brief description of the Dungeness A site and its surroundings is presented in this EMP.

Decommissioning work at Dungeness A is carried out on a project basis. The mitigation measures identified in the Environmental Statement of 2005 are listed in Section 5 and unless otherwise stated, these measures have been successful in managing the potential environmental impacts so far. Additional mitigations have been added this year to offset biodiversity loss following construction activities which resulted in the reduction of vegetated shingle areas. Details of the mitigations are listed in Section 5.

### 3. STAKEHOLDER ENGAGEMENT

NRS remains committed to engaging with stakeholders at all phases in the decommissioning process. Regular meetings have been held with the Dungeness Site Stakeholder Group. In addition a number of other organisations (see Box 3) will be kept informed of activities at the Site. The organisations listed in Box 3 were also involved in the public consultation process for the Environmental Statement.

As well as regular meetings with stakeholders, where appropriate, other interested parties will be kept informed of specific decommissioning activities. Some examples are shown in Box 4.

### Box 3. Local Stakeholders

- Folkestone and Hythe District Council;
- Kent County Council;
- EDF, Dungeness B Power Station;
- Environment Agency;
- Natural England;
- Kent Wildlife Trust;
- Royal Society for the Protection of Birds (RSPB) and
- Site Stakeholder Group (SSG).

### Box 4. Examples of Additional Stakeholder Activities

- Liaising with local wildlife groups, as well as Natural England and RSPB, regarding the work methodology for works undertaken on, or in close proximity to, sensitive vegetated shingle;
- Informing and liaising with the Crown Estate, Natural England, RSPB and Marine Management Organisation in relation to any offshore activities; and
- Informing local residents of any short-term activities that may cause a noise nuisance.

## 4. THE SITE AND SURROUNDING AREA

### Site Description

Dungeness A Power Station was commissioned in 1966. Its twin reactors and associated turbo-generators had a generating capacity of 450 megawatts (electrical) (MW(e)). The Site ceased generating on 31<sup>st</sup> December, 2006 after producing 120 TWh of electricity during 41 years of operation. It then became known as Dungeness A Site.

During 2012 the site successfully completed the defueling of both reactors and the ONR accepted the fuel free verification declaration following a detailed audit. This involved removing 55000 fuel elements (or 610 tonnes) which were dispatched in 332 fuel flasks following the cessation of generation on 31/12/2006.

Each reactor building contains one gas-cooled magnox reactor<sup>3</sup>. Each defueled reactor is situated within a large concrete bio shield, the purpose of which was primarily to protect workers from the effects of the direct radiation from the fuelled reactors. The reactor pressure vessel is of spherical shape and made from steel, contained within each pressure vessel are the graphite core and a range of monitoring and control equipment. Each reactor has four boilers which converted water to steam in order to drive turbines that were located inside the Turbine Hall. Cooling of the steam to return it to water was provided by seawater passed through condensing units located on the floor of the turbine hall beneath the turbines. The cooling water intake and outfall structures are located offshore and were connected to the turbine hall by means of large underground culverts which have since been blocked at each end.

Since 2006 a number of buildings and plant associated with operation of the site have been demolished including the cooling water pump house, the turbine hall and the old administration building. Other plant and buildings remain in place to support the site's continued operation including sewage plants, active effluent water treatment plants, stores, buildings and offices.

Decommissioning and waste management activities continue on the site. The Site's fuel storage ponds were drained of water in 2020 and bulk asbestos removal achieved in 2021.

### Surrounding Landscape

Dungeness A site is located at an altitude of approximately 5.8m Above Ordnance Datum (AOD) on an extensive shingle foreland. Beyond the site, ground levels remain close to sea level for considerable distances inland. These low-lying areas include Denge Marsh, Walland Marsh and, further to the north, Romney Marsh. Vegetation on the shingle foreland is sparse, limited to low growing shingle communities, except in localised areas where scrub has developed.

### Transport Infrastructure

The main route from the strategic road network, which is the most appropriate route for heavy goods vehicles, is from the M20 at Junction 10 or 10a, the A2070 to Brenzett, then the A259 through Old Romney and the B2075 to Lydd, followed by the Dungeness Road, which runs between the settlements of Lydd and Lydd-on-Sea. The site approach road is accessed from the Dungeness Road. There is no direct rail access to the site. However, there is a railhead immediately to the north of the junction of the site approach road with the Dungeness Road. The nearest rail stations for passenger services are Appledore and Rye.

### Local Watercourses

The main surface water feature is the English Channel. There is also a series of land drains, including the Deng marsh Sewer, which drain an area to the north and west. The Dengemarsch Sewer, which is classified as a 'main river' by the Environment Agency, is maintained by the Agency for flood defence purposes running southwards to the sea, passing some 1.9km to the west of the Dungeness A site.

There are a series of gravel pits to the north and north-west of the site, the closest being Long Pitt, located approximately 800m north of the site.

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<sup>3</sup> The term 'magnox' refers to the first generation of gas-cooled nuclear reactors used for electricity generation. It is derived from the cladding material (magnesium non-oxidising alloy) that surrounds each individual uranium metal fuel element.



## Geology and Hydrogeology

The Dungeness A site is underlain by gravel deposits (the Denge Gravels), which constitute one of the largest shingle formations in Europe, with sand deposits (Marine Sands) lying beneath the shingle. The uniqueness of the gravel deposits is a factor in the Site of Special Scientific Interest (SSSI) designation for the area around the power station Site. Siltstones, fine-grained sandstones and mudstones lie at depth. There are two Minor Aquifers beneath Dungeness A, of which the uppermost is the most important. This upper aquifer comprises the Denge Gravels but also the underlying Marine Sands. This aquifer has been extensively developed for water supply, being abstracted by Affinity Water.

## Sensitivity of the Receiving Environment

The nearest settlements are Dungeness village to the east of the Site, Lydd-on-Sea to the north and the larger town of Lydd, 6km to the north-west.

The Dungeness A Site lies within the Dungeness Special Landscape Area (SLA). The Kent Downs and High Weald Areas of Outstanding Natural Beauty (AONB) lie to the north and west.

The following Sites of nature conservation interest are located within 10km of Dungeness:

- Dungeness, Romney Marsh & Rye Bay Site of Special Scientific Interest (SSSI)<sup>4</sup>;
- Dungeness to Pett Level Special Protection Area (SPA);
- Dungeness Special Area of Conservation (SAC);
- Dungeness Designated Ramsar Site (conservation of wetland);
- Dungeness National Nature Reserve (NNR);
- Kent Special Landscape Area (SLA); and
- Romney Marsh Local Landscape Area.

Dungeness, Romney Marsh & Rye Bay SSSI surrounds the site and within the site itself the SSSI is located to the north and north-east of the and includes the beach which is adjacent to the site and forms part of the site licence boundary. The SSSI is principally designated for its nature conservation value and geological importance as the largest shingle structure in the UK<sup>5</sup>. The site is particularly valued for its natural plant communities, and its invertebrate interest. Dungeness SAC is designated for its Annex I habitats, including annual vegetation of drift lines and perennial vegetation of stony banks, and for an Annex II species, great crested newt, which is known to occur in the gravel pits over 1km from the boundary of the licensed site. No part of the Dungeness A site is SAC.

The nearest Scheduled Monument is the Acoustic Listening Devices located near Lade. There are also no Listed Buildings on the Dungeness A Site. However, adjacent to the Site, the New and Old Lighthouse and Lighthousemen's Dwellings are Listed Grade II buildings. There are no parks or gardens of historic interest on or adjacent to the site. The nearest is at Port Lympne to the west of Hythe. There are no registered historic battlefields in Kent.

## 5. MITIGATION MEASURES

Additional mitigation measures have been included this year which is a change from the mitigations that were submitted in issue one of this document and the Environmental Statement and reported in this Environmental Management Plan. The mitigation measures added are listed in Section 5 (Red Hemp Nettle and Sussex Emerald Moth). The following tables list the mitigation measures for each phase of the decommissioning project at Dungeness A. Examples of how mitigations measures have been implemented during decommissioning activities are listed in Section 6.

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<sup>4</sup> As notified on 16th August 2006 under 28C of the Wildlife and Countryside Act 1981.

<sup>5</sup> The 9000ha Dungeness, Romney Marsh & Rye Bay SSSI was announced by Natural England on 16th August 2006 and unites eight existing SSSI sites (Dungeness, Walland Marsh, Cheyne Court, Romney Warren and North Lade in Kent; and Camber Sands and Rye Salting, Rye Harbour and Pett Level in East Sussex) and also includes 2.300ha of newly notified land including an area of the Dungeness A Site. For consistency with the full Environmental Statement the original designations, i.e. the designation before the amalgamation, are referred to in the tables in this Environmental Management Plan.

## DEFERRAL PERIOD PREPARATIONS

### Mitigation measures already identified (Condition 3a)

Environmental Impact	Mitigation Measure Proposed	Action	Comments
<b>Air Quality and Dust</b>			
<b>Dust Emissions (from on-Site)</b> <ul style="list-style-type: none"> <li>Increase in Site dust emissions due to construction, demolition and waste/materials handling operations etc. which could impact on residential and industrial receptors.</li> </ul>	<p>As appropriate:</p> <ul style="list-style-type: none"> <li>Use of the Building Research Establishment, Guidance on the Control of Dust from Construction and Demolition Activities (2003).</li> <li>On-Site roads to be regularly cleaned of mud/dust deposits, including the use of re-circulating water wheel washers and road cleaners as appropriate; and sheeting of vehicles carrying potentially dusty loads.</li> <li>Minimisation of unnecessary material and waste handling as far as practicable.</li> <li>Use of water sprays for external demolition activities as appropriate</li> <li>Use of water sprays during outside in-fill operations.</li> <li>Avoidance of vehicular use of un-surfaced (soft) ground where possible and limits on vehicle speeds on such surfaces where it cannot be avoided. Use of water sprays during particularly windy or dry conditions.</li> </ul> <p>Use of water sprays to maintain damp surfaces during dry and windy weather (eg soil stockpiles, demolition rubble); or sheeting or</p>	<ul style="list-style-type: none"> <li>Routine control will be enforced through existing site procedures. Any additional requirements will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> <li>The effectiveness of dust mitigation will be monitored. There are a variety of means of measuring dust deposition (eg sticky pads); directional monitoring will be used if possible. It may be appropriate to initiate monitoring before works commence in order to determine the background contribution to which the Site may add.</li> </ul>	<ul style="list-style-type: none"> <li>The implementation of these mitigation measures will offset impacts of dust deposition on sensitive habitats and species within and immediately adjacent to the Site. Sensitive habitats include Dungeness SSSI, NNR, SAC and SPA, and sensitive species include the Sussex Emerald Moth and its larval food plants, Early Spider Orchid, Red Hemp Nettle, Black Redstarts and lichens.</li> </ul>

Environmental Impact	Mitigation Measure Proposed	Action	Comments
	seeding of surfaces of stockpiles of soil or other dusty materials <ul style="list-style-type: none"> <li>• Sheeting or seeding of surfaces and/or use of wind fences as appropriate.</li> <li>• Covering of containers and/or use of wind fences as appropriate</li> </ul>		
<ul style="list-style-type: none"> <li>• Dust emissions due to use of explosives</li> </ul>	<ul style="list-style-type: none"> <li>• Such activities will not be carried out under particularly dry or windy conditions, and local residents and Dungeness B will be informed in advance</li> </ul>	<ul style="list-style-type: none"> <li>• These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> <li>• The effectiveness of dust mitigation will be monitored. There are a variety of means of measuring dust deposition (eg sticky pads); directional monitoring will be used if possible. It may be appropriate to initiate monitoring before works commence in order to determine the background contribution to which the Site may add. Monitoring arrangements will be discussed in advance with the local authority.</li> </ul>	<ul style="list-style-type: none"> <li>• It should be noted that the decision as to whether explosives are used for demolition will be confirmed upon receipt of contractor method statements. Mitigation measures will therefore be employed on a case-by-case basis.</li> </ul>

Environmental Impact	Mitigation Measure Proposed	Action	Comments
<b>Dust (road side)</b> Increase in dust at residential properties along traffic routes due to soiled vehicles or vehicles carrying dust load.	As appropriate: <ul style="list-style-type: none"> <li>Sheeting of lorries carrying dusty loads</li> <li>Provision of wheel washing for, as a minimum, heavy goods vehicles on leaving the Site</li> </ul>	<ul style="list-style-type: none"> <li>Routine control will be enforced through existing Site procedures. Any additional requirements will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> <li>These mitigation measures will be considered as part of the development of the Transport Management Plan.</li> </ul>	<ul style="list-style-type: none"> <li>These mitigation measures will offset possible though not significant impacts on habitats and species adjacent to roads.</li> </ul>
<b>Archaeology and Cultural Heritage</b>			
No significant adverse environmental impacts identified arising from decommissioning activities.			
<b>Ecology</b>			
<b>Dungeness SSSI &amp; NNR</b> HGVs straying onto verges along access road and other roads around Site.	<ul style="list-style-type: none"> <li>Appropriate signs will be put in place to advise drivers not to access verges.</li> </ul>	<ul style="list-style-type: none"> <li>Routine control will be enforced through existing site procedures. Any additional requirements will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> <li>Environmental Suitably Qualified Experienced Person (ESQEP) to ensure information regarding the ecological value of the site is included in site campaigns.</li> </ul>	<ul style="list-style-type: none"> <li>Due to the presence of mostly soft shingle verges, HGV drivers would be reluctant by their nature to stray onto them.</li> <li>Measures put in place to mitigate negative effects on Sussex Emerald Moth will also serve to minimise this effect.</li> </ul>

Environmental Impact	Mitigation Measure Proposed	Action	Comments
<b>Sussex Emerald Moth and its larval food plants</b> Loss of and/or disturbance to habitat.	<ul style="list-style-type: none"> <li>Minimisation of habitat loss where practicable.</li> <li>Implementation of an agreed methodology for working on sensitive shingle habitats.</li> <li>An agreement with Natural England regarding the management of an area between the security fence and licensed Site boundary as a receptor area for larvae of this species found on site during this phase of decommissioning.</li> </ul>	<ul style="list-style-type: none"> <li>These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> <li>Environmental SQEP to liaise with contract managers to ensure that contractors follow the agreed methodology for working on/adjacent to sensitive shingle areas.</li> <li>Contractors to be advised to speak with their contract manager or Environmental SQEP for advice regarding working on/close to sensitive shingle areas.</li> </ul>	<ul style="list-style-type: none"> <li>NRS support further studies by local wildlife groups such as Butterfly Conservation, to establish which areas of the Site are more ecologically important for the Sussex Emerald Moth and their current distribution.</li> <li>An agreement with Natural England regarding the management of the area between the security fence and licensed boundary to the north has been in place for some time. Additionally this area is now part of the designated SSSI.</li> </ul>
Incidental mortality.	<ul style="list-style-type: none"> <li>Mitigation to minimise disturbance to shingle would also reduce the potential risk of incidental mortality.</li> </ul>	<ul style="list-style-type: none"> <li>These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	
Dust deposition.	<ul style="list-style-type: none"> <li>See dust suppression measures above under Air Quality and Dust.</li> </ul>	<ul style="list-style-type: none"> <li>These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	<ul style="list-style-type: none"> <li>The mitigation measures are proposed also to mitigate the effects of dust on people, and other flora and fauna.</li> </ul>

Environmental Impact	Mitigation Measure Proposed	Action	Comments
Loss of vegetated shingle from construction areas	<ul style="list-style-type: none"> <li>All vegetation should be cut to a height of 100-150mm. Cuttings should be left on site for one week to allow all seed to drop and then removed.</li> <li>Cut, pull or use herbicide 'spot' treatments to control the spread of undesirable vegetative species to below 5% of whole area.</li> <li>Creation of bare ground using mechanical hand rotavator. Between 5 – 10% of the total area of vegetated shingle habitat to be returned to bare shingle.</li> <li>Seeding of wild carrot in areas previously rotovated.</li> </ul>	<ul style="list-style-type: none"> <li>Further detail on these mitigations with timescales are included in the site's Biodiversity Enhancement Management Plan (BEMP).</li> </ul>	<ul style="list-style-type: none"> <li>The BEMP aims to offset (and marginally improve) biodiversity value on site.</li> </ul>
<b>Red Hemp-Nettle</b> Loss of and/or disturbance to habitat/incidental mortality due to fence replacement.	<ul style="list-style-type: none"> <li>Minimisation of areas of ground disturbance, winter working and the use of temporary trackways. Natural England consents are in place for the management of Red Hemp Nettle.</li> </ul>	<ul style="list-style-type: none"> <li>These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> <li>Environmental SQEP to liaise with contract managers to ensure that contractors follow the agreed methodology for working on/adjacent to sensitive shingle areas.</li> </ul>	<ul style="list-style-type: none"> <li>Site procedures on gaining consent to carry out work on Dungeness SSSI or protected vegetated shingle to be followed.</li> </ul>



Environmental Impact	Mitigation Measure Proposed	Action	Comments
Dust deposition.	<ul style="list-style-type: none"> <li>See dust suppression measures above under Air Quality and Dust.</li> </ul>	<ul style="list-style-type: none"> <li>These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	<ul style="list-style-type: none"> <li>The mitigation measures are proposed also to mitigate the effects of dust on people, and other flora and fauna</li> </ul>
Loss of vegetated shingle from construction areas	<ul style="list-style-type: none"> <li>Cut all vegetation to a height of 20-30mm.</li> <li>Cut all vegetation to a height of 100-150mm. Cuttings should be left on site for one week to allow all seed to drop and then removed.</li> <li>Cut, pull or use herbicide 'spot' treatments to control the spread of undesirable vegetative species to below 5% of whole area.</li> <li>Creation of bare ground using mechanical hand rotavator. Between 10-20% of the total area of vegetated shingle habitat to be returned to bare shingle.</li> </ul>	<ul style="list-style-type: none"> <li>Further detail on these mitigation measures with timescales are included in the BEMP.</li> </ul>	<ul style="list-style-type: none"> <li>The BEMP aims to offset (and marginally improve) biodiversity value on site.</li> </ul>

Environmental Impact	Mitigation Measure Proposed	Action	Comments
<b>Black Redstarts</b> Loss of nest Sites/breeding habitat.	<ul style="list-style-type: none"> <li>Provision of additional, appropriately designed nest boxes prior to the commencement of Site works.</li> </ul>	<ul style="list-style-type: none"> <li>Nest boxes should be installed prior to the start of works on-Site, at the earliest opportunity (<i>ie</i> more than one breeding season before, if possible), in order to allow time for the Black Redstarts to become familiar with them before their usual nest Sites are lost.</li> <li>Advice should be sought from an experienced ecologist.</li> <li>Ornithologist and/or RSPB to determine suitable nest box locations.</li> </ul>	.
Loss of foraging habitat.	<ul style="list-style-type: none"> <li>Minimisation of habitat loss, where reasonably practicable. At any one time, parts of the Site will provide potentially suitable foraging habitat for Black Redstart.</li> <li>See also mitigation measures for Sussex Emerald Moth.</li> </ul>	<ul style="list-style-type: none"> <li>These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	<ul style="list-style-type: none"> <li>Although the impact described is 'not significant' this mitigation is proposed as a matter of best practice.</li> </ul>
Incidental mortality/noise (including explosions) and visual disturbance.	<ul style="list-style-type: none"> <li>Employee awareness programme and experienced individuals tasked with identifying active nest Sites.</li> </ul>	<ul style="list-style-type: none"> <li>These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> <li>Environmental SQEP to ensure that periodical visual inspections are carried out for active nest sites.</li> </ul>	<ul style="list-style-type: none"> <li>Although the impacts have been assessed as 'not significant', Black Redstarts receive some protection under the Wildlife and Countryside Act 1981, mitigation is therefore required.</li> <li>NRS Ecology Advisor is consulted prior to any major works being undertaken.</li> </ul>

Environmental Impact	Mitigation Measure Proposed	Action	Comments
<b>Lichens</b> HGVs straying onto verges of the access road.	<ul style="list-style-type: none"> <li>Use of appropriate signs to inform drivers of the sensitivity of these habitats</li> </ul>	<ul style="list-style-type: none"> <li>Routine control will be enforced through existing Site procedures. Any additional requirements will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans</li> </ul>	<ul style="list-style-type: none"> <li>Due to the presence of mostly soft shingle verges, HGV drivers would be reluctant by their nature to stray onto them.</li> </ul>
<b>Reptiles</b> Incidental mortality.	<ul style="list-style-type: none"> <li>One-way reptile-proof fencing to be used to prevent reptiles from moving into working areas. Reptile-proof fencing should be installed prior to works commencing, allowing a period of time for reptiles to move out of the working areas.</li> </ul>	<ul style="list-style-type: none"> <li>This mitigation measure will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> <li>Environmental SQEP to ensure that measures are put in place sufficiently in advance of works and that the advice of a suitably qualified and experienced person is first obtained.</li> <li>Environmental SQEP to liaise with contract managers to ensure that contractors follow the agreed methodology for working on/adjacent to sensitive shingle areas.</li> </ul>	<ul style="list-style-type: none"> <li>Although the impact with mitigation has been assessed as 'not significant', reptiles are protected under the Wildlife and Countryside Act 1981. Mitigation is therefore required.</li> <li>A reptile-proof fence was installed prior to the first major demolition works in 2012.</li> </ul>

Environmental Impact	Mitigation Measure Proposed	Action	Comments
<b>Geology, Hydrogeology and Soils</b>			
Inadvertent or uncontrolled disturbance or spreading of existing contaminated soils, including movement by windblown dust, entrainment in runoff, attachment to vehicles and/or inappropriate soil handling operations.	<ul style="list-style-type: none"> <li>• Desk studies and Site investigation, if necessary, before works commence in order to determine the presence or absence of contamination, so that appropriate working practices can be adopted from the outset</li> <li>• Controlled access to or from known or potentially contaminated working areas as appropriate</li> <li>• Use of re-circulating wheel washers on HGVs leaving Site as appropriate</li> <li>• See below under 'Inadvertent contamination of soils and/or groundwater arising from temporary storage of contaminated soils, wastes or materials'</li> <li>• See also dust control mitigation measures</li> </ul>	<ul style="list-style-type: none"> <li>• These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	
Mobilisation of existing contamination by direct rainwater infiltration due to changes in ground coverage.	<ul style="list-style-type: none"> <li>• Investigation of contaminated soils prior to removal of hard-standings or buildings/foundations (possibly by desk study alone if appropriate), with prior remediation if necessary</li> </ul>	<ul style="list-style-type: none"> <li>• These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	<ul style="list-style-type: none"> <li>• Although the impact described is 'not significant' these mitigation measures are required because they constitute good practice.</li> </ul>

Environmental Impact	Mitigation Measure Proposed	Action	Comments
Mobilisation of existing contamination by direct rainwater infiltration due to the creation of temporary open excavations.	<ul style="list-style-type: none"> <li>• Desk studies and Site investigation, if necessary, before works commence in order to determine the presence or absence of contamination, so that appropriate working practices can be adopted from the outset.</li> <li>• Excavation dewatering, if necessary, with monitoring and appropriate management/disposal of any waters arising.</li> <li>• Tenting of exposed areas or excavations, if necessary.</li> </ul>	<ul style="list-style-type: none"> <li>• These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans</li> </ul>	<ul style="list-style-type: none"> <li>• Although the impact described is 'not significant' these mitigation measures are required because they constitute good practice</li> </ul>
Creation of new contaminant migration pathways (eg due to the creation of boreholes, piles or excavations connecting previously unconnected geological strata).	<ul style="list-style-type: none"> <li>• Compliance with British Standard 5930 (Code of Practice for Site Investigations) and BS 10175 (Investigation of Potentially Contaminated Sites – Code of Practice).</li> <li>• Compliance with EA Technical Report P5-065/TR (Technical Aspects of Site Investigation).</li> <li>• Production of risk assessments, method statements and contingency plans.</li> </ul>	<ul style="list-style-type: none"> <li>• Routine control will be enforced through existing Site procedures. Any additional requirements will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	

Environmental Impact	Mitigation Measure Proposed	Action	Comments
Inadvertent contamination of soils and/or groundwater arising from temporary storage of contaminated soils, wastes or materials.	<ul style="list-style-type: none"> <li>• Sampling and testing of soils, wastes and materials prior to storage as appropriate.</li> <li>• Segregation as appropriate.</li> <li>• Use of containment (eg membranes) to eliminate cross-contamination, as appropriate.</li> <li>• Management of rainwater run-off from storage areas for contaminated or potentially contaminated soil, wastes and materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Routine control will be enforced through existing Site procedures. Any additional requirements will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	
Inadvertent contamination of soils and/or groundwater arising from inappropriate use of contaminated soils, wastes or materials as in-fill materials.	<ul style="list-style-type: none"> <li>• Sampling and testing of potentially contaminated soils, wastes and materials prior to use as appropriate</li> <li>• Authorised disposal of unsuitable soils, wastes and materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Routine control will be enforced through existing Site procedures. Any additional requirements will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	
Changes in soil and groundwater quality due to spills or leaks of non-radioactive substances.	<ul style="list-style-type: none"> <li>• Bunding of chemical and fuel storage according to Statutory Regulations</li> <li>• Appropriate protocols for chemicals and fuel handling in line with Statutory Regulations, with trained staff only to operate facilities.</li> <li>• Emergency spill response planning according to contingency arrangements, including spill kits kept on Site and trained staff available.</li> </ul>	<ul style="list-style-type: none"> <li>• Routine control will be enforced through existing Site procedures. Any additional requirements will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning plans.</li> </ul>	



Environmental Impact	Mitigation Measure Proposed	Action	Comments
Inadvertent effects on groundwater flow and quality due to in-fill of deep basements and the breaching of basement structures to prevent 'ponding'.	<ul style="list-style-type: none"> <li>Breach of residual basement structures on one side only and/or above maximum water table only.</li> <li>If considered necessary by the EA, use of in-fill that does not exceed average permeability of <i>in situ</i> gravels.</li> </ul>	<ul style="list-style-type: none"> <li>These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	<ul style="list-style-type: none"> <li>The current lifetime plan strategy for voids is to infill with suitable material as it becomes available through the deferral period and FSC. It is expected that small voids will be filled during the deferral period as spoil is generated, however there will be a shortfall of suitable material on the sites to infill large voids; for example the turbine hall basement.</li> </ul>
Inadvertent effects of local dewatering on groundwater resources and nearby abstractions, watercourses and Sites of conservation interest.	<p>If necessary:</p> <ul style="list-style-type: none"> <li>Placement of physical barriers (eg sheet piles) and recharge barriers as appropriate (<i>ie</i> injection back into the ground of an equivalent volume of water to that extracted).</li> </ul>	<ul style="list-style-type: none"> <li>These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	<ul style="list-style-type: none"> <li>The significance of operations and the need for mitigation measures to be discussed in advance with the EA, Water Companies and other parties.</li> </ul>
<b>Landscape and Visual</b>			
Light spill.	Any new lighting to be installed on site should be directional lighting.	<ul style="list-style-type: none"> <li>These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	<ul style="list-style-type: none"> <li>The impact associated with any additional lighting on site has been assessed as 'not significant', however this mitigation measure is proposed as a measure of best practice, in order to contain the extent of illumination to those areas which are intended to be lit only.</li> </ul>

Environmental Impact	Mitigation Measure Proposed	Action	Comments
<b>Noise and Vibration</b>			
<b>Local residential properties, recreational areas &amp; industrial receptors</b>  General changes to noise directly from the Site and associated changes in traffic.	<ul style="list-style-type: none"> <li>• Use of noise barriers/screens around work areas.</li> <li>• Use of equipment fitted with effective silencers where practicable.</li> <li>• Appointment of a site contact to whom complaints/queries about construction/demolition activity can be directed - any complaints to be investigated and action taken where appropriate.</li> <li>• Local residents informed of exceptional activities.</li> <li>• No potentially significant external working outside of normal working hours (Monday to Friday 08.00 to 17.00) without prior agreement with the local authority.</li> <li>• All construction activity to be undertaken in accordance with good practice as described by British Standard 5228-2:2009 Noise and Vibration Control on Construction and Open Sites. This includes minimising unnecessary revving of engines, turning off machines when not required and routine maintenance of equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	
Noise & vibration caused by explosive demolition (if used).	<ul style="list-style-type: none"> <li>• Use of good blasting practice and warning members of the public and the operators of Dungeness B in advance of demolition activities using explosives.</li> </ul>	<ul style="list-style-type: none"> <li>• As above.</li> </ul>	<ul style="list-style-type: none"> <li>• See also dust emissions due to use of explosives.</li> </ul>

Environmental Impact	Mitigation Measure Proposed	Action	Comments
<b>Socio-economic</b>			
<b>Direct Employment</b> Long-term loss of jobs.	<ul style="list-style-type: none"> <li>NRS will attempt to re-deploy affected staff, provide opportunities for early retirement &amp; support staff re-training/re-skilling.</li> <li>NRS will encourage its contractors to make use of local labour, equipment and services as far as practicable.</li> </ul>	<ul style="list-style-type: none"> <li>Contractors will be provided with a list of local companies known to be capable of involvement as sub-contractors.</li> </ul>	
<b>Surface Waters</b>			
<b>Turbid Water</b> Changes in sea water quality due to the potential release of turbid and/or contaminated water from decommissioning activities on the Site.	Where necessary: <ul style="list-style-type: none"> <li>Wetting down (eg excavation or construction/demolition areas) to prevent windblown spread of dust into locations where subsequent washing into surface water drains would be likely, and appropriate management of wastewater arising</li> <li>On-Site roads to be kept free from mud/dust deposits, including the use of re-circulating water wheel washers and road cleaners as appropriate</li> <li>Sheeting or seeding of any stockpiles of soil or potentially contaminating materials</li> <li>Careful design and siting of spoil mounds as necessary to manage run-off, including use of low walls around such mounds if appropriate</li> <li>See also measures under Geology, Hydrogeology and Soils</li> </ul>	<ul style="list-style-type: none"> <li>These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans</li> </ul>	Wheel washing addresses dust, ecology, geology etc. and highways impacts

Environmental Impact	Mitigation Measure Proposed	Action	Comments
Changes in sea water quality due to minor spills and leaks of non-radioactive substances, if they occur.	<ul style="list-style-type: none"> <li>Careful siting of fuel/chemical handling facilities, correct use of drains and inspection regimes according to the EA's pollution prevention guidance for businesses;</li> <li>Emergency/spill response planning in accordance with site contingency plans and arrangements, including spill kits kept on site and staff trained in their use.</li> </ul>	<ul style="list-style-type: none"> <li>Routine control will be enforced through existing site procedures. Any additional requirements will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> </ul>	
<b>Traffic and Transport</b>			
Impacts on safety <i>etc.</i> due to decommissioning traffic.	<ul style="list-style-type: none"> <li>A Travel Plan will be implemented with the objective of reducing the number of trips generated by the station throughout the entire decommissioning process.</li> </ul>	<ul style="list-style-type: none"> <li>Details of the mitigation measures will be considered as part of the development of the Transport Management Plan – see Appendix 2.</li> </ul>	
Impacts on safety <i>etc.</i> due to mud on roads	<ul style="list-style-type: none"> <li>Wheel washing of HGVs as necessary.</li> </ul>	<ul style="list-style-type: none"> <li>This mitigation measure will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.</li> <li>This mitigation measure will be considered as part of the development of the Transport Management Plan.</li> </ul>	Wheel washing addresses dust, ecology, geology <i>etc.</i> and surface waters impacts

Options to implement activities where mitigation may be required but specific options cannot yet be selected (Condition 3b)

Environmental Impact	Mitigation Measures Under Consideration
<b>Historic Value</b> Historical value of Dungeness A.	<ul style="list-style-type: none"><li>• A strategy to preserve the historical and industrial value of all NRS, Magnox reactor Sites, of which Dungeness A is one, is in progress. NRS will provide supporting information to the NDA as required to assist in making any decisions. Potential options include the following:</li><li>• Conducting a Royal Commission of the Historical Monuments of England (RCHME) level 1 survey</li><li>• Undertaking a comprehensive cataloguing of existing photographs and supplementing these with new photographs where appropriate</li><li>• Retaining operational records and other documents of interest</li><li>• Displaying items of plant of interest, eg panels from a control room, in a visitors centre and/or museum</li></ul>

Activities where mitigation may be required but it is not yet possible to identify possible mitigation measures (Condition 3c)

Environmental Impact
All activities have been assessed for care and maintenance preparations.

**DEFERRAL PERIOD**

Environmental Impact	Mitigation Measures	Action
<ul style="list-style-type: none"> <li>During care and maintenance no significant works are planned with the possible exception of recladding the reactor buildings (should this be required). It is anticipated that the reactors would be reclad in a similar material to that used at the start of care and maintenance hence the visual impact will remain unchanged</li> <li>No other significant adverse environmental impacts were identified during care and maintenance.</li> </ul>	<ul style="list-style-type: none"> <li>Ecological surveys will be carried out prior to ILW removal if deemed necessary, mitigation measures will depend upon findings of the surveys. Field surveillance visits to demonstrate the prevention of biodiversity loss in compliance with the BEMP, will be carried out during the deferral period.</li> </ul>	<ul style="list-style-type: none"> <li>Dependent upon the results of surveys</li> </ul>

Options to implement activities where mitigation may be required but specific options cannot yet be selected (Condition 3b)**Environmental Impact**

Currently no such options to implement such work activities have been identified

Activities where mitigation may be required but it is not yet possible to identify possible measures (Condition 3c)**Environmental Impact**

All activities have been assessed for care and maintenance preparations.



**FINAL SITE CLEARANCE**Mitigation measures already identified (Condition 3a)

Environmental Impact	Mitigation Measures	Action	Comments
<b>Air Quality and Dust</b>			
Mitigation measures will be the same as those identified in the Care and Maintenance Preparations phase			
<b>Archaeology and Cultural Heritage</b>			
No significant adverse environmental impacts identified arising from decommissioning activities.			
<b>Ecology</b>			
Dungeness SSSI & NNR and wildlife	Ecology surveys will be carried out prior to final site clearance and mitigation measures will depend upon the findings of the surveys		
<b>Geology, Hydrogeology and Soils</b>			
Mitigation measures will be the same as those identified in the Care and Maintenance Preparations phase			
<b>Landscape and Visual</b>			
Light spill	Any new lighting to be installed on site should be directional lighting.		The impact associated with any additional lighting on Site has been assessed as 'not significant', however this mitigation measure is required as a measure of best practice, in order to contain the extent of illumination to those areas which are intended to be lit only. The visual impact of the site should be improved with the demolition of buildings and reduced lighting.

Environmental Impact	Mitigation Measures	Action	Comments
<b>Noise and vibration</b>			
Mitigation measures will be the same as those identified in the Care and Maintenance Preparations phase			
<b>Socio-economic</b>			
Direct Employment – Long-term loss of jobs.	NRS will attempt to re-deploy affected staff, provide opportunities for early retirement & support staff re-training/re-skilling.		
<b>Surface Waters</b>			
Mitigation measures will be the same as those identified in the Care and Maintenance Preparations phase			
<b>Traffic and Transport</b>			
Mitigation measures will be the same as those identified in the Care and Maintenance Preparations phase			

Options to implement activities where mitigation may be required but options cannot yet be selected (Condition 3b)

Environmental Impact	Mitigation Measures Under Consideration
No such activities have been identified.	

Activities where mitigation may be required but it is not yet possible to identify possible mitigation measures (Condition 3c)

Environmental Impact
Additional mitigation measures (or any changes required to those measures listed above) for activities during final site clearance will be based on the technologies available at that time, decommissioning experience and any future environmental assessment deemed necessary. Ecology and traffic surveys will be repeated prior to final site clearance; the former will include bat, protected species such as the Sussex Emerald Moth, and breeding bird surveys. This will be followed by a reconsideration of the appropriate mitigation measures.

## 6. IMPLEMENTATION OF MITIGATION MEASURES AND ASSESSMENT OF THEIR EFFECTIVENESS

It is a requirement of the conditions attached to the consent (See Appendix 1), to implement the mitigation measures and describe their effectiveness. This chapter will discuss the measures which have been implemented, how the site measures their effectiveness in reducing significant environmental impacts and describes their use in some relevant projects which have been carried out during 2023/2024.

### Process for Implementation of Mitigation Measures

Dungeness A site procedures ensure that decommissioning activities are carried out in accordance with the mitigation measures set out in this EMP. All decommissioning projects and modifications to plant are assessed during the proposal stage in accordance with robust company management control procedures.

There are a number of tools used on Site to ensure that all environmental impacts are minimised. The site has an Integrated Management System, which will cover the requirements of ISO 9001 (Quality Assurance), ISO 14001 (Environmental Management Systems), ISO 45001 (Occupational Health and Safety Management System) and ISO 55001 (Asset Management).

For other companies working on site their contracts stipulate that all works shall be carried out in accordance with Dungeness A Environmental Management System (EMS).

It is stipulated in their contract that any contractor shall deliver the works in compliance with the Environmental Impact Assessment (Decommissioning Regulations) (EIADR) and in particular the Conditions detailed in Appendix 1.

The requirements above are reinforced at site meetings and training and checked through audits, inspections, visits etc.

An environmental risk assessment process is in place which was designed to identify at the planning stages, the environmental hazards and associated risks involved with project work on site. From the initial hazard identification, mitigations are proposed and a full environmental risk assessment is produced for the work, where appropriate. The mitigations are listed in the process and include mitigations related to our consent to decommission the site. (Section 7 provides examples where this process has been used).

### Process for Determining Effectiveness of Mitigation Measures

The site aims to continually monitor the effectiveness of the specified mitigation measures over time, and where necessary review these, in order to ensure the success of reducing significant environmental impacts. Critical to environmental protection is the close interaction between contractors and the supervision provided by site staff, who ensure that mitigations and other environmental requirements are considered, applied and reviewed, where relevant, throughout the lifecycle of the project from conception to completion. It also allows enabling supervision and practical evaluation of the effectiveness of the mitigation measure. Evaluations can provide valuable feedback on any difficulties encountered, changes required or highlight further mitigation requirements.

The effectiveness of mitigation measures are discussed with project managers and engineers. They are also assessed during regular project safety reviews and during the close out of decommissioning proposal quality plans.

The site measures the effectiveness of mitigations in a variety of ways, outlined over:-

#### 1) Environmental Performance Monitoring

Environmental performance monitoring (eg, noise and groundwater monitoring) using specialist equipment, allows the Site to understand baseline conditions and assess environmental impacts post-mitigation. Post-mitigation environmental monitoring will be used mostly to measure

effectiveness of mitigation measures for larger projects on site, eg movement of large quantities of spoil or demolition of buildings. The requirement of this method of measuring effectiveness is determined on an individual project basis as appropriate.

Effectiveness of radiological mitigations is monitored with the Site Environmental Monitoring Programme (SEMP).

## 2) Visual evidence

Site photographs, taken before the start of the project provide a good visual indication of the surrounding area and help to identify potential environmental receptors in the vicinity and hence highlight mitigation measures that need to be implemented.

Visual inspections and photographs during the project can also provide an indication on effectiveness of the mitigation measure. For example, the presence of mud on roads can be an indication of insufficient wheel washing of HGVs.

## 3) Review of Regulatory Action, Complaints and Internal Event Reporting

The Site operates a robust system of internal event reporting, where workers are encouraged to report conditions which may be unsafe or pose a threat to the environment. These are then investigated and additional controls put in place where required.

Learning from experience is also regularly reinforced by the internal review of complaints, event reports raised and any regulatory actions received. Learning is then shared and communicated with all other NRS sites.

## 7. WORK UNDERTAKEN OVER THE LAST YEAR

### Waste Operations

The Waste Operations programme have completed the removal of ILW resin from the pathfinder containers located in the Wet Waste Transfer Facility. A total of 6.43te has been retrieved in total for that project. Active commissioning has commenced within the 'Fill House' with the first Type VI package being filled with ILW Sand & Gravel. A total of 7 x ILW packages (MOSAIKs) have also been transferred to the Bradwell ISF (Interim Storage Facility) by rail, making a total of 136 ILW packages (MOSAIKs) moved from Dungeness since ILW retrievals commenced.



**The DCICs transported by rail to  
Bradwell site**

In addition, numerous Low-Level Waste (LLW) shipments have been made, including the processing and disposal of contaminated metallic waste (10.5te), contaminated combustible waste (67m<sup>3</sup>). More than 11,600 tonnes of non-radioactive waste (mainly construction/demolition material) has also been processed and disposed of (as well as 215te of hazardous waste).

## Decommissioning Programmes

### Waste Projects

The Waste Projects Team has continued to develop and test plant to retrieve the remaining Intermediate Level Waste ready for storage and/or disposal. This work is now divided between seven projects which will continue to progress over the next year:

- **Borderline Wet Waste Project** – Retrieval equipment is being commissioned off-Site and the Contractor is expected to mobilise in 2024.
- **Sludge and Sand Project** – The project has commenced the removal of sand and gravel from Storage Tank 2 (ST2). The media in ST2 was not as envisaged and the transfer of the waste has taken longer than anticipated. The project has filled the first box and is waiting to start the filling of the second box from ST2.
- **Cyclone Dust Project and Desiccant and Catalyst Project** - Cyclone dust – retrievals have commenced and approximately 75% of the waste has been retrieved so far. Once we have analysis results this waste will be placed into a Mosaik and sent to Bradwell site for long term storage. Desiccant and Catalyst have been retrieved from both the upper and lower BD&E rooms into drums and they are awaiting analysis so that this waste can be sent for incineration.
- **Yellow Box® Drying Stations Project** – The two new drying stations have been inactively commissioned and are waiting for the first package to be sent for drying to carry out active commissioning.
- **Resin Residuals Project** – The tanks have now been handed over to the ponds team for decommissioning. No further project deliverables are related to this project.
- **MCI (Miscellaneous Contaminated Items)** – The design is 90% complete with manufacturing stage coming to an end. On site early enabling works have started. The project is to be delivered in phases with the onsite build due in September/October. On site early Updates on projects for this year.
- **Wet Waste Transfer Facility (WWTF) Project** - Resin transfers have been concluded and the WWTF is currently being converted from the resin configuration to a 'sludge' configuration to allow for the transfer of sludge from mules to final packages for disposal. This involves several new panels (Vibrating Table and DOU panel), EC&I install and mechanical install.
- **New Builds Project** - Detailed design of the Waste Transfer Area for solid ILW processing equipment is complete with all items of plant now installed and ready for operations. The three new facilities house the relocated ILW facilities, as a result of the boilers down project. Building 132 has been handed over to MCI for the installation of a Waste Transfer Area (WTA), while B134 and B133 have been actively commissioned.
- **Sludge and Sand Project** – The project has commenced the removal of sand and gravel from Settling Tank 2 (ST2). The media in ST2 was not as envisaged and the transfer of the waste has taken longer than anticipated. The project has filled the first box and is waiting to start the filling of the second box from ST2.

**Table 1** shows an extract from the environmental risk assessments created for the construction of three new waste projects buildings and the inactive commissioning of the wet waste transfer facility which identifies some of the hazards of the work and mitigations applied.

Work description	Environmental Hazard	Environmental Mitigation	Effectiveness/comments
Excavation of hardstanding and foundations, and the removal of shingle in readiness for the construction of three new waste buildings	Risk of spills to surface drains.	<ul style="list-style-type: none"> <li>Oils and fuels to be stored on site at minimal levels with correct labels and inspection regime in place.</li> <li>Storage containers meeting secondary containment requirements (110% of largest, 25% of total).</li> <li>Refuelling to take place on hardstanding, away from drains, never on shingle.</li> <li>Refuelling to not be lone working.</li> <li>Drain covers and spill kits to be made available by the project and all staff to be suitably trained and knowledgeable in their location and use.</li> <li>Chemicals to be stored in COSHH cabinets with drip tray.</li> </ul>	Mitigations implemented. No issues reported.
	Pollution of groundwater	<ul style="list-style-type: none"> <li>Dewatering system is to be designed to separate silt and sediment from the water prior to discharge.</li> <li>Clean water is to be discharged directly to soakaway / ground.</li> </ul>	<p>Mitigations implemented.</p> <p>These mitigations were agreed with the EA and an agreement reached that the site does not require an abstraction licence or a discharge permit for this activity.</p> <p>No issues reported.</p>
	Concrete crush water generation.	<ul style="list-style-type: none"> <li>Any work generating cement washing must be planned to minimise its generation and maximise reuse of water.</li> <li>ESQEP to agree the design of cement wash water management system.</li> <li>Cement sediments not to be washed down drains but swept up and disposed of.</li> <li>Cement washing must not be discharged to drains.</li> </ul>	Mitigations implemented. No issues reported.



Work description	Environmental Hazard	Environmental Mitigation	Effectiveness/comments
	Increased noise from construction activities.	<ul style="list-style-type: none"> <li>No significantly noisy working outside normal working hours</li> <li>Local residents to be informed of duration of works in advance via the Site Stakeholder Ground and Planning Application.</li> <li>Switching off of machinery with engines when not in use.</li> </ul>	<p>Mitigations implemented.</p> <p>During this reporting period there was one instance of loud weekend work (DNA-4103). The neighbour was contacted by the Site Director offering an in person meeting to discuss the issue.</p>
	Release of dust to atmosphere.	<ul style="list-style-type: none"> <li>Use of water sprays for external dust-creating activities as appropriate.</li> <li>Minimisation of material and waste handling as far as practicable.</li> <li>Avoiding use of vehicles on unsurfaced (soft) ground where possible and limits on speed on such surface where it cannot be avoided.</li> <li>Sheeting or seeding of surfaces and covering of containers.</li> <li>Sheeting of lorries carrying dusty loads.</li> </ul>	<p>Mitigations implemented. No issues reported.</p>
	Adverse impacts to protected species and designated land.	<ul style="list-style-type: none"> <li>Avoiding use of vehicles on unsurfaced (soft) ground where possible and limits on speed on such surface where it cannot be avoided.</li> <li>Sheeting or seeding of surfaces and covering of containers.</li> <li>Sheeting of lorries carrying dusty loads.</li> <li>1m high temporary impermeable barriers to prevent dust from the work area adversely affecting protected flora and fauna and blowing over nearby residential properties and surrounding SSSI area.</li> <li>Excavation for slab foundation to be carried out before March to minimise impact to the Red Hemp Nettle.</li> <li>Use of water sprays for external dust-creating activities as appropriate.</li> </ul>	<p>Mitigations implemented.</p> <p>Did require replacing / fixing on a couple occasions due to wind.</p> <p>Impermeable barriers along site outer fence line caused some concerns due to wind potentially pulling down the fences, but ultimately did not cause an issue.</p>

Work description	Environmental Hazard	Environmental Mitigation	Effectiveness/comments
	Land Quality - Excavations	<ul style="list-style-type: none"> <li>All excavation works to comply with the Land Quality Risk Assessment DNA-WP-23638-RPT-8900-Iss-2.</li> <li>Upon discover of any contamination, work is to cease, and a Land Quality Interface shall agree any remediation plans in accordance with Planning Conditions.</li> <li>Reassurance monitoring to take place prior and after excavation as required by the Waste Team to confirm appropriate waste routes.</li> <li>RCA based excavations to be subject to site clearance monitoring protocol.</li> </ul>	Mitigations implemented. No issues reported.
Construction of three waste buildings.	Risk of spills to surface drains.	<ul style="list-style-type: none"> <li>Oils and fuels to be stored on site at minimal levels with correct labels and inspection regime in place.</li> <li>Storage containers meeting secondary containment requirements (110% of largest, 25% of total).</li> <li>Refuelling to take place on hardstanding, away from drains, never on shingle.</li> <li>Refuelling to not be lone working.</li> <li>Drain covers and spill kits to be made available by the project and all staff to be suitably trained and knowledgeable in their location and use.</li> <li>Chemicals to be stored in COSHH cabinets with drip tray.</li> </ul>	Mitigations implemented. No issues reported.
	Concrete crush water generation.	<ul style="list-style-type: none"> <li>Any work generating cement washing must be planned to minimise its generation and maximise reuse of water.</li> <li>ESQEP to agree the design of cement wash water management system.</li> <li>Cement sediments not to be washed down drains but swept up and disposed of.</li> <li>Cement washing must not be discharged to drains.</li> </ul>	Mitigations implemented. No issues reported.

Work description	Environmental Hazard	Environmental Mitigation	Effectiveness/comments
	Increased noise from construction activities.	<ul style="list-style-type: none"> <li>No significantly noisy working outside normal working hours</li> <li>Local residents to be informed of duration of works in advance via the Site Stakeholder Ground and Planning Application.</li> <li>Switching off of machinery with engines when not in use.</li> </ul>	Mitigations implemented. No issues reported.
	Lighting	<ul style="list-style-type: none"> <li>Any new lighting to be installed on site should be directional lighting. If high level site task lighting is used this must not point towards neighbouring residential properties.</li> </ul>	<p>Mitigations implemented.</p> <p>One complaint from neighbours regarding lighting from the site (out of hours). This issue was believed to have been a fire alarm light reflecting off the sides of the building.</p>
	Landscape & Visual	<ul style="list-style-type: none"> <li>New buildings to be kept in keeping with current buildings on site.</li> <li>Conditions associated with the planning permission will be required to be adhered to.</li> </ul>	Mitigations implemented. No issues reported.

### Plant and Structures/Ponds

Work continues to prepare for the demolition of the boiler annexes, boiler cells, blower halls, central control block and other ancillary buildings that will facilitate the removal of the boilers. This work is to address degradation of the boiler annexes and the boilers. Work is proceeding on several fronts covering enabling works as well as the design phases to inform the demolition which is not expected to occur until 2026 at the earliest. Work is progressing well to characterise the buildings set for demolition to fully understand the wastes that will be produced ahead of waste generation. Other major preparation works that are underway include:

- Completion of new laboratory construction;
- Demolition of three remaining small ancillary buildings;
- Building a new site stores facility;
- Commercial work to secure a contractor for the main demolition project;
- Diverting reactor void water to surface drains;
- Cladding of the south face of reactors following storm damage.

Table 2 below shows the mitigations put in place to support this work. There have been no significant environmental events related to this work and the mitigations applied have been effective and proportionate to the hazards present.

**Table 1: Review of mitigations applied for Plant and Structures and Ponds work and their effectiveness**

Work description	Environmental Hazard	Environmental Mitigation	Effectiveness/comments
Construction of new site laboratory	Risk of spills to surface drains	<ul style="list-style-type: none"> <li>Project to ensure spill kits and drain covers are available at the work area and personnel are trained in their use.</li> <li>All demolition vehicles to have plant nappies placed underneath when not in use</li> <li>Where possible deploy drain covers prior to refuelling or working with mobile plant, and ensure working parties are aware of drains in the area</li> <li>Perform pre-start checks on mobile plant and equipment, to identify wear or damage</li> </ul>	Mitigations implemented. No issues reported.
	Increased noise from construction activities	<ul style="list-style-type: none"> <li>No significantly noisy working outside normal working hours</li> <li>Acoustic barriers to be constructed around generator</li> </ul>	Mitigations implemented. No issues reported.
	Release of dust to atmosphere	<ul style="list-style-type: none"> <li>If required, use water sprays to damp down areas where dust is being produced</li> <li>Ensure any vehicles carrying dust producing materials are sheeted up prior to leaving site</li> <li>Limit dust producing work if expecting high winds</li> <li>Cover waste skips</li> </ul>	Mitigations implemented. No issues reported.
Demolition of 3 buildings	Risk of spills to surface drains and groundwater	<ul style="list-style-type: none"> <li>Storage and use of chemicals minimised.</li> <li>Project to ensure spill kits and drain covers are available at the work area and personnel are trained in their use.</li> <li>All demolition vehicles to have plant nappies placed underneath when not in use</li> <li>Where possible deploy drain covers prior to refueling or working with mobile plant, and ensure working parties are aware of drains in the area</li> <li>Locate a storage area for mobile plant away from drains and unmade ground</li> </ul>	Mitigations implemented. One spill of hydraulic oil experienced during the works. Spill contingencies enacted and mitigations were effective to minimise impact of the spill.

Work description	Environmental Hazard	Environmental Mitigation	Effectiveness/comments
		<ul style="list-style-type: none"> <li>Perform pre-start checks on mobile plant and equipment, to identify wear or damage</li> </ul>	
	Increased noise from demolition activities	<ul style="list-style-type: none"> <li>Use of equipment fitted with effective silencers where practicable</li> <li>No working outside normal working hours</li> <li>Minimise unnecessary revving of engines, turning off machines when not required</li> </ul>	Mitigations implemented. No issues reported.
Construction of new site stores	Spills - pollution of ground/surface waters	<ul style="list-style-type: none"> <li>Ensure spill kits and drain covers are available at the work area</li> <li>Work which will generate cement washing will be carried out in accordance with Regulatory Position Statement-235</li> <li>Locate generators away from drains and unmade ground</li> <li>Perform prestart checks on mobile plant and equipment to identify wear or damage</li> <li>All plant items containing oils, chemicals to be banded</li> <li>Refuelling must only occur on hard ground, away from potential traffic impact hazards or drains.</li> <li>Where possible deploy drain covers prior to refuelling or working with mobile plant, and ensure working parties are aware of drains in the area</li> </ul>	Mitigations implemented. Two small spills of hydraulic oil from machinery have occurred. Impact negligible due to use of swift action, spill kits and plant nappies.
	Increased noise from construction activities	<ul style="list-style-type: none"> <li>Use of equipment fitted with effective silencers where practicable</li> <li>No working outside normal working hours</li> <li>Minimise unnecessary revving of engines, turning off machines when not required</li> <li>Acoustic barriers to be constructed if required</li> <li>Local residents informed of exceptional activities</li> </ul>	Mitigations implemented. No issues reported.
	Release of dust to atmosphere	<ul style="list-style-type: none"> <li>Ensure any vehicles carrying dust producing materials are sheeted up prior to leaving the site.</li> </ul>	Mitigations implemented. No issues reported.

Work description	Environmental Hazard	Environmental Mitigation	Effectiveness/comments
		<ul style="list-style-type: none"> <li>Limit dust producing work if expecting high winds.</li> <li>Deploy drain covers to protect drains during dust-producing works</li> </ul>	
	Potential spread of contaminated soils	<ul style="list-style-type: none"> <li>Radioactivity and hydrocarbons prior to and following excavation as required by the waste team to confirm waste route.</li> </ul>	Mitigations implemented. No issues reported.
Replacement of South Face cladding	Spills - pollution of ground/surface waters	<ul style="list-style-type: none"> <li>Storage and use of chemicals and oils should be minimised.</li> <li>Label all containers with contents, volume and contact details of responsible person.</li> <li>Inspect all storage containers and connecting pipework for signs of leaks, damage or degradation prior to use and on a regular basis when in use.</li> <li>Drain covers must be used to protect any drains near to liquid storage areas or work areas handling liquids.</li> </ul>	Mitigations implemented. No issues reported.
	Increased noise from construction activities	<ul style="list-style-type: none"> <li>No working outside normal working hours</li> </ul>	Mitigations implemented. No issues reported.
	Disturbance of birds/ bats	<ul style="list-style-type: none"> <li>Protective netting shall enclose the exposed building face to mitigate the likelihood of birds nesting within it</li> <li>If birds or bats are spotted within the area, contact an ESQEP for advice</li> </ul>	Mitigations implemented. No issues reported.

The following works are expected to get underway in the next year.

- Infilling the Turbine Hall Void;
- Terminal isolations of site supplies;
- Demolition of the old site laboratory

## Asset Care

Several packages of work under the asset care programme are in the detailed planning stages at present. These works include the post operational clean out and demolition of the main sewage plant structures, installation of new towns water pipework, replacement of surface drains pumps and fire system upgrades.

Works to install new sewage plant retention tanks was undertaken this year in readiness for the post operational clean out and demolition of the main sewage plant structures which are now redundant. The table over shows some of the mitigations implemented to support this work package.

**Table 2: Review of mitigations applied for Asset Care work and their effectiveness**

Work description	Environmental Hazard	Environmental Mitigation	Effectiveness/comments
Installation of sewage plant retention tanks	Liquid substances/plant and equipment	<ul style="list-style-type: none"> <li>• Locate a storage area for mobile plant away from drains and unmade ground and, if possible, indoors.</li> <li>• Perform pre-start checks on mobile plant and equipment, to identify wear or damage.</li> <li>• Ensure necessary COSHH risk assessments have been completed for all equipment containing hazardous substances, and that they are available to the equipment operators.</li> <li>• If possible only refuel from the site's diesel tank. Refuelling must only occur on hard ground, away from potential traffic impact hazards or drains.</li> <li>• Where possible, deploy drain covers prior to refuelling or working with mobile plant and ensure that working parties are aware of drains in the area.</li> </ul>	Mitigations implemented. No issues reported.
Installation of sewage plant retention tanks	Traffic & Transport	<ul style="list-style-type: none"> <li>• Plan movements of vehicles onto and off site at times and dates that will cause the least disruption as there are other works planned in this area</li> <li>• Ensure Heavy Goods Vehicles (HGV's) follow preferred routes as noted in Appendix 2 of DUNA/SED/045</li> <li>• Develop specific plans in the event of an abnormal load needing to be transported</li> </ul>	Mitigations implemented. No issues reported.

## Socio-Economic

The Nuclear Restoration Services Socio-Economic Scheme administered £1,034,812 across the 12 NRS sites in 2023/24.

Every pound of the £1,034,812 invested attracted another £10.47 in match funding, enabling 82 organisations to achieve their ambitions of creating employment, skills opportunities, economic resilience, green growth and positive social impact.

There is continued support for Folkstone and Hythe District Council, Rural England Prosperity Fund (REPF), now progressing well in the second year – NRS funding of £76,000 (split over two years) covered resource for the Rural Projects Officer role, to manage and administer the £571,471 REP Fund to maximise impact for the Romney Marsh. This includes a £350,000 grant scheme to support community and small business projects that strengthen the rural economy. The aim of the REPF is to encourage business diversification and provide net zero and green energy grants for businesses, support the visitor and tourism economy including connectivity enhancements and investment in capacity building and infrastructure support to assist with connectivity and energy efficiency for local communities.

NRS have worked with Folkestone & Hythe District Council as a strategic partner for many years, beginning with the formation of the Romney Marsh Partnership in 2012 and the subsequent development of the £2m New Romney Business Hub. The NDA provided £500,000 towards construction costs and a further £205,238 (over 5 years) to employ a business adviser to be based in the centre for four years to support local businesses.

In addition to the multi-year funded projects, Dungeness also supported projects through the good neighbour level funding of up to £2,000. This enabled the Caring Altogether on Romney Marsh (CARM) community befriending scheme to purchase a laptop. This fantastic service helped 110 people feeling socially isolated last year.

We also supported the 1<sup>st</sup> Rye Scouts group with new cooking equipment for camping trips and enabled the IMOS Foundation to buy new signage for the Hope All Saints sculpture park on Romney Marsh.

The Romney Marsh Partnership received funding to help with the costs of hosting the Romney Marsh Inspires careers and recruitment fair 2023. Local employers from a wide range of industry sectors met Marsh Academy secondary school pupils and students from the Lighthouse on the Marsh specialist education service. Over 400 young people had the opportunity to achieve career guidance from employers and employees' careers as a result. Members of the wider community were also supported to build their employability skills and seek career opportunities.

NRS funding also purchased materials and equipment for the New Romney Country Fayre and first aid provision at the annual Day of Syn event at Dymchurch, Romney Marsh.

As of July 2024, there were 196 NRS staff based at Dungeness A; there were also an additional 80 agency and contractor supplied workers employed at site



## 8. ENVIRONMENTAL IMPACTS

### Air Quality and Dust

Work continues to ensure that equipment which contains fluorinated greenhouse gases is adequately maintained and robustly controlled. There are strict legal requirements with regard to leak testing, labelling of equipment, record keeping and qualifications of personnel who work on these systems and therefore an accurate inventory is critical to the management of these systems. There were two separate instances of leaks from systems containing F-Gas during the last year. The leaks occurred on both chiller units within the Advanced Vacuum Drying Service (AVDS) Building. These were due to a loose service valve on one of the chillers and the other incident was due to leakage from the head gaskets on both compressors within the other chiller unit. These chiller units had been leak tested to the required frequency. Staff and contractors are also encouraged to switch off vehicles when not in use so that discharges of greenhouse gases to atmosphere are minimised where possible.



Equipment that contains fluorinated greenhouse gases

### Archaeology and Cultural Heritage

There is no evidence of any surviving features of archaeological interest within the licensed power station site and therefore no mitigation is required in relation to this topic.

### Ecology

#### Red Hemp Nettle:

The annual programme of ecological monitoring within the SSSI continued this year. The frequency and distribution of Red Hemp Nettle (*Galeopsis angustifolia*) plants within the survey area showed a significant increase when compared to the 2023 survey and produced the highest plant total since annual plant-count surveys began in 2016.

Plant size was generally small with a vast majority of plants producing just a single inflorescence, and distribution was localized and characterised by dense, localised patches along the southern edge of the northern section of the sterile zone



Red Hemp Nettle in the sterile zone

#### Sussex Emerald Moth:

A total of 9 Sussex Emerald Moth (*Thalera fimbrialis*) larvae was recorded during timed counts carried out in 2024 from the seven NRS-owned compound sites. This represented an insignificant drop in numbers from the 10 recorded from these sites in 2023, but contrasted with a small increase in larval numbers across the whole of the Dungeness SSSI.

The total number of *Galeopsis angustifolia* plants recorded was approximately 1400, this representing a significant 73% increase in plant frequency since the 2023 survey, indicating a third season of increased viability for this annual plant species within the no spray area of the sterile zone and a significant upward trend in plant frequency since 2021

The wet winter conditions benefited the success rates of both the Sussex Emerald and Wild Carrot in some areas but also accelerated habitat succession in others. This resulted in a decline in Wild Carrot in more enriched shingle sites such as Sites L1 & L2 on the eastern edge of the NRS compound where larval numbers of Sussex Emerald were reduced as a consequence, falling from seven in 2023 to just two during 2024. This was partly compensated for by greater foodplant success and increased larval numbers in more impoverished sites such as along the shingle bund near the Channel View car park which holds Site Y in the monitoring programme.

### SEM Partnership Project:



**Rabbit proof fence erected on the SSSI as part of the Partnership Project**

In addition to the ongoing routine monitoring programme for the SEM, NRS continue to work with Natural England, Butterfly Conservation, EDF and the Ministry of Defence to grow Wild Carrot and create suitable breeding habitat for this threatened species in trial areas. These efforts have been worthwhile with moth larvae recorded in most of the plots over recent years. This project was established in 2011 with the aim of increasing the SEM populations across the Dungeness peninsula, as despite the ongoing monitoring undertaken by NRS and EDF, survey results had demonstrated a progressive decline in SEM larvae, a trend that is now being reversed. For the eleventh successive year larvae were recorded within the fenced plot inside the NRS compound during 2024. Dungeness A is fully

committed to the SEM Partnership Project and, in conjunction with Natural England have:

1. Maintained the fenced SEM food plant protected area (around 400m<sup>2</sup>) on the SSSI land on Dungeness Site;
2. Financed the preparation of the area by disturbance and seeding with wild carrot. (SEM food plant);
3. Financed the annual SEM survey of the whole of the SSSI including the new fenced area.

Whilst 2024 saw a slight increase in Sussex Emerald larval numbers in the fenced NRS plot, there was a fall in the distribution and inflorescence frequency of Wild Carrot. It is likely that the final Butterfly Conservation report will recommend the re-seeding of this plot with Wild Carrot during the next two seasons, combined with some control of invasive vegetation within the fenced compound.

### Introduction of a Biodiversity Enhancement Management Plan:

A biodiversity metric assessment was carried out in 2022 to assess the impact of planned construction on shingle-areas on site from three projects:

- Waste projects construction of 3 waste management facilities
- Plant and Structures construction of a replacement stores facility
- Asset Management modification of road way in north west corner of site

It was identified that to prevent biodiversity loss and to comply with planning permission requirements biodiversity compensation would be required. The biodiversity compensation management arrangements are detailed in the Biodiversity Enhancement and Management Plan (BEMP). The BEMP is a 30 year plan that aims to offset (and marginally improve) biodiversity value on site. Effectiveness of the management will be tracked and reviewed in line with the requirements detailed in the BEMP. As this work was considered to be a change to EMP mitigations under EIADR, the change was assessed and the findings concluded that the only impact identified was to biodiversity and ecology. The change was found to be a minor net improvement as long as the BEMP is complied with. The BEMP has been added to the mitigation measures detailed in Section 5 of this report.

Work began on the management of the BEMP areas this year. The work undertaken follows the management regimes listed in the BEMP and the work undertaken is recorded at each visit. An audit to assess the arrangements is planned for the end of this year.

### Birds:

The site endeavours to avoid work during the bird nesting season as all wild birds and their nests and eggs are protected under the Wildlife and Countryside Act 1981 whilst they are actively nesting or roosting, however this is not always a viable option.

Bird nesting issues continue to arise on site. In order to try to manage the issues caused, monthly bird management meetings are held. Some of the actions undertaken so far include:

- the identification of suitable site-wide bird mitigation measures;
- the implementation of a programme of drone flights to monitor bird populations;
- regular drain cleaning when safe to do so to remove any bird nesting material;
- reporting of any incidents where bird nesting issues prevent safety critical work from being undertaken team briefs to increase environmental awareness regarding bird issues on site.



**Netting to prevent bird access**

The site was issued with a licence from Natural England in March 2024 for the control of Herring and Lesser Black Backed Gulls which granted permission to kill or take their nests or eggs, use a prohibited method or disturb wild birds or their nests when in use or being built for the preservation of public health or public safety. The Site utilised this licence on two occasions this year. This included the removal of Herring Gull nests and eggs which could have delayed the reactor cladding reinforcement project.

The site also holds a general licence to kill or take pigeons to preserve public health or public safety. This licence was rarely used during the last year, as there was extensive damage seen to buildings following severe weather during the previous years which resulted in holes and loose cladding. These repairs were completed during the year but further work is now being undertaken on the R2 south face side which will potentially result in pigeons entering the building and therefore until this work is complete, it was decided that culling would be ineffective.

Bird netting was erected on some site roofs in 2023 ahead of large scale demolition of these areas. The netting has been largely effective in preventing the birds from nesting but there have been some problems as the netting design did not cover all the roof areas leaving some roof ledges exposed. This resulted in birds nesting on the ledges around the netting. Bird spikes will be installed on the affected roofs ahead of the next bird nesting season. Other deterrents employed include metal spiders on the turnstile roofs which have been a successful mitigation measure as these areas were problematic in previous years. Work has also begun to improve the netting on other buildings on site to prevent birds from nesting and delaying future project work.

The results of the black redstart, peregrine falcon and breeding gull surveys conducted at Dungeness A site in 2024 have confirmed the following:

- 1 breeding pair of black redstarts in the ground floor loading bay of building 19B. The black redstart pair within the Dungeness A Site has been active throughout the breeding season with at least one juvenile successfully fledging over the course of the surveys and a second brood attempt confirmed.
- 1 breeding pair of peregrine falcons on the roof of building 21A. The pair of peregrine falcons at the Dungeness A Site have successfully hatched a second brood of three juveniles after the first brood failed at the egg stage. Despite the death of the female in early July the male has continued to provide for his brood and the nest is being supported through supplementary feeding, provided by NRS.
- Between 38 and 44 pairs of breeding herring gulls located on rooftops concentrated around the reactor buildings, with outlying nests located on buildings 12/13, 34, 111 and 143.

## Geology, Hydrogeology and Soils

In accordance with the Dungeness A Land Quality Strategy, a programme of Land Quality Survey monitoring and characterisation is undertaken. Collected samples are sent for analysis at NRS approved, UKAS accredited testing laboratories. The groundwater monitoring programme is undertaken on a six monthly basis. The latest round was conducted in June 2022. The objective of the monitoring is to obtain groundwater levels, in-situ water quality parameters and samples for laboratory radiochemical analysis (gross beta, tritium and high resolution gamma spectrometry). The results of previous radiochemical analysis indicated that the activity (concentration) of all of the nuclides in all of the samples were less than the required action levels, so no specific actions were recommended in relation to land quality issues.

Infilling of the Turbine Hall Basement to support the boiler removal project is due to commence by the end of this calendar year. Additional groundwater monitoring, as agreed with the Environment Agency, to support this work and ensure assertions in the risk assessment are bounding have been developed and implemented.

## Landscape and Visual

The Reactor re-cladding project is arguably the most visually dynamic project on the Dungeness site.

Following extensive damage that occurred during storm Eunice in 2022, works have been undertaken to strip all the remaining cladding from the reactor face and complete repairs to existing brickwork and steelwork.

All steelwork has had a new protective coat to improve longevity and extra steelwork is being installed to provide additional strengthening.

The protective scaffold structure will now be gradually reduced as new cladding is installed from the top down, with a planned completion date of early 2026.

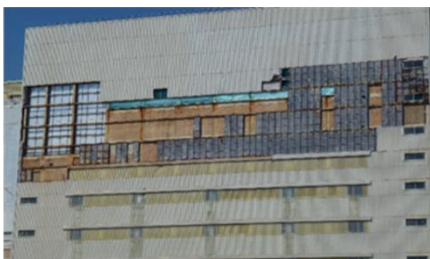


Fig 1 R2 following storm damage in



Fig 2



Fig 3

Figures 2 and 3 July 2024 replacement works on-going

A number of new buildings to facilitate waste management activities and welfare facilities have been installed, however, these are in keeping with the site. Overall, as decommissioning progresses the eventual reduction of buildings will create a positive visual impact.



## Noise and Vibration

All noise generating activities are restricted to normal working hours 08.00 - 17.00 Monday - Friday. Any potentially noisy activities are minimised where possible and all work is undertaken within the requirements of the Control of Noise at Work Regulations. Any work conducted near the site boundary is assessed for the potential to generate noise and subsequent nuisance to our neighbours.

## Surface Water

Dungeness A sewage plant previously received and processed effluent from the Dungeness B Site for discharge to the English Channel. This ceased in August 2023 as Dungeness B have now commissioned their own modular sewage plant.

Ground water accumulates in the reactor voids and is pumped via the surface drains system which is a permitted discharge route. This water was discharged to the surface drains from April to July 2022, after which debris was found in the samples due to the work being undertaken in the voids on the new automated pumping system. The reactor voids were then diverted back to discharge via the Active Effluent Water Treatment Plant (AEWTP) until this work was complete.

A programme of reassurance monitoring was undertaken once the pumping system works had ceased. This was designed to ascertain whether conditions had returned to those previously observed during the detailed characterisation phase. Some of the samples collected were discoloured (rusty orange) and contained particulate. Following further sampling, analysis of the samples confirmed that they contained undissolved iron, presumed to be carried into the voids by surface water/groundwater from corroded and degraded plant. Neither dissolved nor undissolved iron had been considered in the original environmental risk assessment supporting the permit variation so discharges of water from the voids to the SWDs have remained on hold as they would not meet the existing permit. A new permit variation is currently being prepared.

The site management procedures prevent the risk of pollution to surface waters from uncontrolled discharges, through leaks and spills. The Site ensures that storage areas are well managed through routine inspections, maintenance of tanks etc. Contingency plans are also in place to deal with any emergency situations which include spillages of hazardous liquids. Spill kits also deployed around the site and contingency exercises will frequently involve the deployment and use of these kits. Also, the Site's internal reporting system would highlight any areas which have the potential to cause leaks or spills.

## Traffic and Transport

There is a Transport Management Plan in place (see Appendix 2). There has been an increase in traffic movements from site activities over the past year due to the increase in construction and demolition works that have been undertaken. These projects have adhered to the transport management plan and where applicable, have implemented their own transport management plans. In addition, there are regular meetings on site to discuss and coordinate traffic management activities.

## 9. FUTURE WORK

Work to decommission Dungeness A Site will continue to progress. A new 10-year strategy was introduced this year which will deviate from the site's consented EIADR baselines. This new strategy will remove the deferral period and instead Dungeness will be continuously decommissioning the site through to final site clearance. Work is ongoing to fully embed the site these changes into the site plans and determine the detail of the site specific configurations. Where strategy changes deviate from the consented site EIADR baseline, the appropriate

assessments will be made prior to any changes being implemented on the site in line with the requirements of Regulation 13 of the EIADR Regulations<sup>[1]</sup>.

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[1] 13. - (1) Where there is a change or extension of -

(a) any project in respect of which a consent has been granted pursuant to regulation 4(b)[1]; or

(b) any project which commenced prior to the coming into force of these Regulations,

which change or extension may have significant adverse effects on the environment, the licensee shall apply to the Executive for a determination as to whether the project shall be made subject to an environmental impact assessment and shall not commence or continue with the change or extension to the project or any other part of the project that the Executive may direct until such determination has been made

**APPENDIX 1 - LETTER PROVIDING CONSENT TO DECOMMISSION AND ATTACHED CONDITIONS****ANNEX 7 Consent and conditions**Decommissioning Project Consent No.113<sup>th</sup> July 2006**NUCLEAR REACTORS (ENVIRONMENTAL IMPACT ASSESSMENT FOR DECOMMISSIONING) REGULATIONS 1999****CONSENT**

granted under regulation 4(b)  
in accordance with regulation 8(3)  
with conditions attached under regulation 8(4)

**DUNGENESS A POWER STATION**

The Health and Safety Executive, for the purposes of regulation 4(b) in accordance with regulation 8(3), hereby grants consent for carrying out the project<sup>9</sup> applied for under regulation 4(a), in particular, to remove all buildings except the reactor buildings, alter the reactor buildings for a period of deferment, retrieve and package operational intermediate level waste, and store the intermediate level waste until it can be removed from Site, and clear the Site, subject to the conditions under regulation 8(4) attached.

Dated:

Signed

For and on behalf of the  
Health and Safety  
Executive

Dr S. L. Creswell

A person authorised to act in that behalf

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<sup>9</sup> Project as defined in regulation 2

Conditions attached to Decommissioning Project Consent No.1

13<sup>th</sup> July 2006

**NUCLEAR REACTORS (ENVIRONMENTAL IMPACT ASSESSMENT FOR  
DECOMMISSIONING) REGULATIONS 1999**

**CONDITIONS**

attached under regulation 8(4)  
to Decommissioning Project Consent No. 1 granted under regulation 4(b)

**DUNGENESS A POWER STATION**

**Condition 1**

The project shall commence before the expiration of five years from the date of this Consent.

**Condition 2**

(1) The licensee is required to prepare and implement an environmental management plan to cover mitigation measures to prevent, reduce and where possible offset any significant adverse effects on the environment.

(2) The project shall not be carried out except in accordance with the environmental management plan.

**Condition 3**

Within 90 days of the date of this Consent, with reference to the environmental statement provided under regulation 5(1) and evidence to verify information in the environmental statement, provided under regulation 10(9), the environmental management plan shall:

- a. list the mitigation measures that are already identified in the environmental statement and evidence submitted to verify information in the environmental statement;
- b. list the options to implement work activities where mitigation measures may be required but where selection of an option will only be possible in the future;
- c. list the work activities where mitigation measures may be required but where assessments to identify mitigation measures will only be possible in the future.

**Condition 4**

Subsequent to condition 3, the environmental management plan shall:

- a. with reference to condition 3b, identify the mitigation measures for options that have been selected, giving reasons for their selection;



- b. with reference to condition 3c, identify the mitigation measures from assessments carried out, giving reasons for their selection;
- c. describe the effectiveness of the mitigation measures over time;
- d. describe significant changes to the mitigation measures in light of experience, giving reasons for such changes.

**Condition 5**

The licensee is required to:

- a. provide the environmental management plan to the Health and Safety Executive within 90 days of the date of this Consent and every year thereafter, or within such longer time as the Executive may agree;
- b. make the environmental management plan available to the public within 30 days of the plan being sent to the Health and Safety Executive, or within such longer time as the Executive may agree; the plan may replace earlier versions.

**Condition 6**

The licensee is required to provide notice to the Health and Safety Executive of any significant change to a mitigation measure to prevent, reduce and where possible offset any major adverse effects on the environment no less than 30 days before the change is made, or within such shorter time as the Executive may agree.

Dated:

Signed

For and on behalf of the  
Health and Safety Executive

Dr S. L. Creswell

A person authorised to act in that behalf

## APPENDIX 2 – PRINCIPLES FOR A TRANSPORT MANAGEMENT PLAN

### Objective

All decommissioning operations involving transport will be managed so as to minimise the environmental effects of these operations, as far as is reasonably practicable. The principles for achieving this are defined below.

### Transport Management Principles

1. Heavy Goods Vehicles (HGV's) will be required to follow preferred routes to and from the strategic road network. From the M20 at Junction 10, the A2070 to Brenzett, then the A259 through Old Romney and the B2075 towards Lydd, followed by the Dungeness Road, which runs between the settlements of Lydd and Lydd on Sea.
2. The numbers of individual transport movements will be minimised as far as is reasonably practicable.
3. Where appropriate, vehicles leaving site will be subject to inspection to ensure that earth and other material is not unduly dispersed. Wheel washing will be used where necessary.
4. On site roads will be swept as necessary to minimise the spread of material off-site and/or into drains or watercourses.
5. Where practicable, transport distances will be minimised by the use of local disposal sites, recycling facilities etc.
6. HGV transport movements should be undertaken within normal working hours (Monday to Friday 08.00 to 17.00) where possible.
7. NRS and their contractors will be required to maintain their vehicles in a good condition.
8. Employees and contractors will be encouraged to share transport when travelling to and from site.
9. Employees and contractors are encouraged to minimise business travel where practicable by initially considering the need to attend off site meetings and to consider the use of other communication methods, e.g. video conferencing facilities. If there is a pressing need to attend off site meetings, then public transport should be used in preference to private transport.
10. In the event of need for an abnormal load to be transported, a specific plan for this movement will be developed.