

16 Mitigation and Monitoring

16.1 Introduction

The Chapter has been prepared to set out the measures identified in this EIAR as being necessary to avoid, prevent, reduce or, if possible, offset the significant adverse effects on the environment (i.e. mitigation measures) and measures necessary to ensure their implementation. is the identification and definition of appropriate mitigation measures to minimise potential effects (avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements) of a development.

This satisfies An Bord Pleanála request for such a document as articulated in the pre-application discussions, and ensures that adequate information is set out in the EIAR to enable the Planning Authority to undertake in carrying out the EIA, as required under the Planning Acts and Regulations.

The table below, **Schedule of Environmental Commitments with respect to Mitigation and Monitoring** sets out the mitigation and monitoring measures which have been identified and defined within the corresponding relevant chapters in this EIAR.

Mitigation Measure No.	EIAR Section Ref.	Relevant Site (WOP/ADF)	Description of Mitigation Measure / Environmental Commitments	Stage of Impact (i.e Construction, Operation, Decommissioning Phase)
1	4.6.1	WOP	<p>The contractor will inform and educate all regular suppliers and all sub-contractors and delivery drivers of the basic procedures. All deliveries will be controlled at the entrance to the fuel handling area. The designated storage areas shall be identified prior to taking delivery of the material and the driver shall be directed to the storage area. Further detail is provided in Appendix 4.2.</p> <p>Materials shall be sourced locally in so far as possible and potential suppliers for concrete and stone are listed in Table 4 11.</p>	Construction
2	4.7.1	WOP	During construction works, surface water runoff shall be controlled so that no silt or other pollutants enter the surface water system. The contractor shall employ best practice settling systems to ensure maximum removal of suspended solids prior to discharge of any surface water or groundwater from excavations to surface water drains.	Construction
3	4.7.1	WOP	The contractor will have to comply with the IE Licence discharge/monitoring requirement during construction. The contractor will be required to comply with best practice such as the CIRIA standard "Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors" (CIRIA, 2001). The contractor will be required to monitor the construction related discharges before a connection to the operational site drainage and ensure that suspended sediment levels are no more than 25mg/l prior to discharge to the onsite drainage system.	Construction
4	4.7.2	WOP & ADF	All waste arising shall be managed and disposed of in a way that ensures the provisions of the Waste Management Act, 1996 and associated amendments and Regulations, are applied.	Construction
5	4.7.2	WOP	A Construction and Demolition Waste Management Plan will be prepared to minimise waste and deal with recycling and reuse of construction waste where it is deemed suitable by testing in line with legislative requirements.	Construction
6	4.7.2	WOP	All non-hazardous office and canteen waste will be collected by a licensed waste collector for disposal in a licensed facility. Construction waste that cannot be reused or recycled shall be stored in a designed area for collection by a licensed waste contractor. Waste oil and fuel shall be stored in a bunded area for collection by a licensed oil recycling contractor. Electrical waste shall be stored in designated containers for collection by a recycling contractor. Scrap metal such as off cuts from reinforcement not suitable for use shall be collected and stored separately for removal off site by a licensed scrap metal merchant. Excess excavated material shall be removed off site by a licensed haulier for re-use or disposed of in a licensed facility. Material such as excavated soils will be tested to determine their suitability for reuse in the construction of berms in the ADF. This will reduce the amount of imported and exported fill needed.	Construction
7	4.7.3	WOP & ADF	Fuels and oils used for plant and equipment on the site be stored in a bunded area within the site compound. This area will be inspected regularly and the bund shall be adequate to contain a minimum of 110% of the volume of the largest container of oil and fuel stored. Spill protection equipment such as absorbent mats, shall be available on site at all times to contain any oil spill that may occur and procedures shall be in place to deal with any such spillage. All plant shall be provided with drip trays and spill kits. Plant operators shall carry out a visual inspection of their vehicle on a daily basis and shall be trained in how to deal with any uncontrolled spillage of oil.	Construction
8	4.7.4	WOP	No invasive species have been identified in the proposed location for the biomass storage slabs however the following precautionary measures will be employed. Invasive species can be introduced into a location by contaminated vehicles and equipment, in particular tracked vehicles, which were previously used in locations that contained invasive species. Good site organisation and hygiene shall be maintained at all times on site, particularly during construction activities. For any material entering the site, the supplier must provide an assurance that it is free of invasive species. Plant shall be inspected upon arrival and departure from site and cleaned when necessary. All site users shall be made aware of invasive species management plans and treatment methodologies.	Construction and Operation
9	4.7.5	WOP & ADF	All works shall be carried out so as to comply with all the requirements of the Safety and Health at Work Act 2005 and any subsequent regulations or amendments and with the requirements of the Health and Welfare at Work (Construction) Regulations, (SI 291 of 2013), any subsequent amendments and any other relevant Health and Safety legislation. All construction staff on site shall have a current Safepass card and relevant CSCS card (Construction Skills Certification Scheme). All works shall be carried out in a safe manner and in accordance with the above legislation and any other guidance notes issued by the Health and Safety Authority. In particular all excavation works shall be carried out in accordance with the HSA publication A Guide to Safety in Excavations.	Construction

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10	4.7.5	WOP	Preliminary design risk assessments have been prepared for the design of the works and these will be updated during detailed design stage. This document shall be utilised to develop the Preliminary Safety and Health plan that will be provided to contractors at tender stage.	Construction
11	4.7.5	WOP	The necessary appointments shall be made for the construction works in accordance with the above legislation. The Contractor will provide a site specific construction stage safety and health plan and shall provide detailed risk assessments and method statements in advance of each element of work. The Contractor shall particularly address the interface between construction activities and the on-going power station operations in conjunction with the ESB and Bord na Móna. On completion of the works, a detailed safety file shall be prepared.	Construction
12	4.7.6	WOP	A detailed site specific construction traffic management plan will be developed by the contractor and approved by the BnM fuel handling operations staff to ensure that the construction works and delivery of construction material does not interfere with the on-going peat deliveries and ensuring controlled and safe movement of all vehicles. A waiting area will be proposed for vehicles entering the site so that a build-up of vehicles is prevented onsite. The site construction traffic will be segregated from the pedestrian traffic for safety reasons.	Construction
13	4.10.1	WOP	<p>The WOP Station will be decommissioned in accordance with the EPA approved Decommissioning Management Plan (DMP) as required by Condition 10.2 of the stations IE Licence.</p> <p>In accordance with the DMP the site will be rendered environmentally safe and the following key activities will be undertaken during decommissioning:</p> <ul style="list-style-type: none"> • Cessation of all production. • Cancellation of all incoming deliveries of materials to the station. • Termination of all contracts other than those that are concerned with the DMP or related to safety of personnel or the environment. • Return of materials to suppliers where possible, for resale or reuse. • Isolation and purging of transfer lines from bulk storage to direct pipe contents back to bulk storage. • Shutting and blanking of supply lines for oils and chemicals to intermediate storage and/or dilution tanks. • Clearing of fuel stocks. • Cleaning and decontamination of all plant and equipment. • Removal of all laboratory chemicals. • Cleaning and decontamination of all laboratory analytical instruments. • Cleaning, decontamination and inspection of bunds, sumps and underground drains. • Destocking of the workshops and stores. • Isolation and disconnection of all electrical supplies to pumps and motors. • Draining of oil from transformers that will not be reused elsewhere. • Cleaning of residues from boilers and cleaning and blanking off of fuel lines. • Draining and cleaning of lube oil systems. • Draining of water systems such as raw feedwater tanks, condensate storage tanks and supplementary cooling systems. • Transfer of ion exchange resins to drum storage. • Maintenance of parts of the water supply system to provide wash-down and cleaning facilities during decommissioning and to meet the ongoing needs for fire protection and sanitary services. • Maintenance of site drainage system and oil interceptors during decommissioning activities. • Secure archiving of all relevant documentation including drawings, instrumentation diagrams, validation documentation, vendor manuals and data, project files, maintenance records, inspection records and other appropriate documentation. • Maintenance of a security presence on site on a 24-hour basis, as necessary, for ongoing monitoring of the site from a safety, fire protection and environmental perspective. • Maintenance of defined site access procedures. • Removal off site of all materials for reuse, recycling of final waste disposal by appropriate licenced waste contractors. <p>It is anticipated that any necessary decontamination of plant and equipment will be carried out on site. It will primarily involve cleaning in place and power washing of internal and external surfaces with collection for final disposal by licenced waste contractors following characterisation and treatment as required.</p>	Decommissioning

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14	4.10.1.1	WOP	<p>A decision on station closure would likely be preceded by a period where the station boiler is in storage, with dry storage being the preferred method. Decommissioning of the boiler will involve cleaning activities that already take place routinely at WOP Station and are managed successfully.</p> <p>No non-routine environmental emissions will result from either boiler storage or boiler decommissioning at WOP Station.</p>	Decommissioning
15	4.10.1.2	WOP	<p>Drainage systems within the power station involve seven licenced emission points combined to discharge to three separate discharge points to the River Shannon. Protection by oil interceptors and existing surface water pond is provided as appropriate and there is no potential for impact upon the River Shannon if the drainage system is left in place after decommissioning. However, cleaning of station drains will be required to mitigate the potential for oil residues to be present within pipelines. This will involve water jetting using the existing oil interceptor system and vacuum tankers. Residues / washings from drainage line cleaning will be disposed of appropriately following testing to confirm that their suitability for discharge. No areas of heavy or free product oil residues that would require steam cleaning are expected. On completion of decommissioning the site drainage will be in a suitable condition for removal or more likely to be left in place to continue to provide surface water drainage for the site.</p> <p>The station will continue to properly operate and maintain the site drainage system prior to and during implementation of the DMP.</p>	Decommissioning
16	4.10.1.3	WOP	<p>Historically, a station waste repository was operated on lands at the former Shannonbridge Generating Station that partly correspond with lands at WOP Station. Whereas asbestos buried there was removed over the years, some Bord na Móna railway lines were built upon part of the station dump area in 1974. Since then, asbestos rope was unearthed in this area beneath the railway lines. Due to the depth of the material, several metres beneath the ground, and the length of time involved, it was not feasible to remove this prior to commissioning of WOP Station. This material will be removed as part of the DMP. It is not expected that other hazardous waste will be encountered in the excavation of the buried asbestos.</p> <p>Following site decommissioning WOP Station may undergo demolition. This may also generate asbestos waste material such as asbestos rope in seals and gaskets. This will also be removed by specialist contractors as part of the DMP.</p>	Decommissioning
17	4.10.1.4	ADF	<p>The ongoing operation of the ADF is linked to the ongoing power generation activity at WOP Station. Upon the cessation of power generation and disposal activities, the closure requirements outlined in the prevailing planning and licensing consents, and as required by the EPA, will be adhered to. Specifically, the EPA approved Decommissioning Management Plan (DMP) and Closure, Restoration and Aftercare Management Plan (CRAMP) as required by Section 10.2 of the current IE Licence and any future licence requirements will be implemented to the satisfaction of the EPA. All open cells will be capped with an impermeable barrier, a drainage layer, and a final peat capping layer and subsequently revegetated.</p>	Decommissioning
18	4.10.2	WOP	<p>Following site decommissioning WOP Station may undergo demolition in accordance with any planning requirements that may be imposed.</p> <p>The WOP site will be reinstated in accordance with the conditions of any planning permission granted. This will generally require the demolition of all surface structures with maximisation of materials recycling.</p>	Decommissioning
19	5.6	WOP	<p>A Delivery Management Plan (DMP) has been prepared in order to mitigate against any potential adverse impacts associated with increased HGV deliveries and details are provided in Appendix 12.3. The DMP has been prepared for the operational phase and as part of this plan a route preference assessment has been undertaken and the routes identified are shown in Chapter 12, Figure 12-6 and local access shown on Figure 12-3. The objective of this route assessment is to maximise the use of the motorway network and the national road network for deliveries, in order to minimise the impact on local populations and schools and to maximise safety. The Delivery Management Plan will be used to encourage and monitor responsible driving behaviour and safe driving habits by the suppliers of the biomass and peat. This mitigation will ensure that there is no significant impact on the local population from the volume of traffic that will be generated by the proposed development. Further details have been provided in Chapter 12 of this EIAR.</p>	Construction and Operation

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20	5.6.1.1	WOP & ADF	<p>During the construction phase, health and safety measures as detailed in the construction methodology in Appendix 4.2 will be implemented.</p> <p>All works will be carried out so as to comply with all the requirements of the Safety and Health at Work Act 2005 and any subsequent regulations or amendments and with the requirements of the Health and Welfare at Work (Construction) Regulations, (SI 291 of 2013), any subsequent amendments and any other relevant Health and Safety legislation. All construction staff on site shall carry out a full site induction have a current Safepass card and relevant CSCS card. All works shall be carried out in a safe manner and in accordance with the above legislation and any other guidance notes issued by the Health and Safety Authority. In particular all excavation works shall be carried out in accordance with the HSA publication A Guide to Safety in Excavations.</p> <p>Detailed design risk assessments have been prepared for the works which have informed the design of the works to date and will be updated during detailed design stage. This document shall feed into a Preliminary Safety and Health plan that will be provided at tender stage.</p> <p>A Project Supervisor Design Stage (PSDS) and a Project Supervisor Construction Stage (PSCS) shall be appointed for the construction works in accordance with the above legislation. The Contractor will provide a site specific health and safety plan and shall provide detailed risk assessments and method statements for review in advance of each element of work. The Contractor shall particularly address the interface between construction activities and the on-going power station operations in conjunction with the ESB and Bord na Móna.</p> <p>On completion of the works the Contractor shall prepare and hand over a detailed safety file, the contents of which shall have been agreed in advance of the works.</p>	Construction
21	5.6.1.2	WOP & ADF	<p>The current housekeeping regime at the station will continue to be implemented and reviewed as appropriate to address the risks associated with the proposed storage and handling of biomass fuels. Regular wash-downs throughout the fuel storage and handling system will prevent the build-up of excess dust and the associated perceived risk of explosion, and will also prevent the build-up of undisturbed piles of residual biomass fuels which may give rise to the risk of fire due to excessive self-heating.</p> <p>Quick throughput is key to eliminating the risks associated with self-heating of biomass fuels. A strict hygiene regime will be implemented at the station prohibiting prolonged storage of any biomass fuels, thus impeding self-heating which gives rise to biological activity such as composting, formation of mould and off-gassing of biomass fuels. The storage on the slabs and within the silos will have a typical residency of 2-3 days.</p> <p>All Health and Safety Training relevant to the handling, storage and co-firing operations of biomass fuels will be provided to station personnel as appropriate. Strict confined space procedures and protection measures that includes appropriate personal protection equipment (PPE) will be implemented which will protect personnel from toxic concentrations of aldehydes and toxic gases which may be emitted by the biomass fuels within enclosed storage spaces such as silos.</p> <p>A full review of the fire and explosion protection, detection and prevention systems in place will be carried out and where required by the appropriate standards additional sensors, monitors and extinguishing systems will be implemented throughout the fuel storage and handling areas, e.g. additional hydrants in the region of the external fuel storage slabs, gas detectors in internal storage facilities, etc.</p> <p>Plant modifications such as fire protection and detection systems arising from safe use of biomass relating to fire and explosion safety will be communicated to the relevant local authorities and local fire safety authority.</p>	Operation

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22	5.6.1.2	WOP & ADF	<p>The SMS and EMS for the station and ADF will continue to be implemented and maintained at the station and will be updated as appropriate to include specific procedures and updated risk assessment in relation to the proposed storage and use of biomass. The ELRA will be updated to include any potential new risks associated with the proposed transition to biomass.</p> <p>In summary in terms of health and safety, the following mitigation measures will be put in place for the operational phase of the proposed development.</p> <ul style="list-style-type: none"> Continued implementation of the current housekeeping regime at the station and with review as appropriate to address the risks associated with the proposed storage and handling of biomass fuels. Regular wash-downs throughout the fuel storage and handling system to prevent the build-up of excess dust and prevent the build-up of undisturbed piles of residual fuels. A strict hygiene regime will be implemented at the station and the storage on the slabs and within the silos will have a typical residency of 2-3 days. All Health and Safety Training relevant to the handling, storage and co-firing operations of biomass fuels will be provided to station personnel as appropriate. Strict confined space procedures and protection measures that includes appropriate personal protection equipment (PPE) will be implemented to protect personnel. A full review of the fire and explosion protection, detection and prevention systems in place will be carried out and where required by the appropriate standards additional sensors, monitors and extinguishing systems will be implemented throughout the fuel storage and handling areas. Plant modifications such as fire protection and detection systems arising from safe use of biomass relating to fire and explosion safety will be communicated to the relevant local authorities and local fire safety authority. The SMS and EMS for the WOP Station and ADF and will be updated as appropriate to include specific procedures and updated risk assessment in relation to the proposed storage and use of biomass. The ELRA will be updated to include any potential new risks associated with the proposed transition to biomass. 	Operation
23	6.7.1.1	WOP	Felling of the woodland compartment within the footprint of Storage Slab B will take place during September to February inclusive (outside the bird breeding season) to avoid disturbance to birds using this habitat for nesting. Pre-construction surveys will also be carried out to confirm the continued absence of any badger sett(s) within this wooded area.	Construction
24	6.7.1.1	WOP	<p>Impacts to small blue butterfly will be mitigated against via the following approach, which will be monitored by an ecologist:</p> <ul style="list-style-type: none"> Transplant of existing substrate containing kidney vetch plants from the existing central area of the proposed storage slab footprint ('donor site') to the open un-vegetated area to the north of the existing storage building ('receiver site'). This will be facilitated using a large turving bucket to ensure the physical integrity of the translocated material and will be carried out in winter/early spring. This area will be fenced off during subsequent construction activities and maintained without strimming or herbicides during the summer months. Develop an area under the OHL wayleave to the northeast of the proposed storage slab as additional habitat; this will involve the seeding and/or plug-planting of kidney vetch over an area of 50-100 m2 under the OHL. 	Construction
25	6.7.1.1	WOP	Sensitive future management of road verge outside eastern fenceline, wherein vetch will be allowed to flower through the small blue breeding season. This area will be maintained through the avoidance of the use of strimming or herbicides during the summer months, subject to consultation between ESB and Offaly County Council.	Construction
26	6.7.1.1	WOP	Best practice and site-specific mitigation relating to surface water protection during the construction phase are presented in Chapter 8 – Surface Water. These measures also ensure water-dependent ecological receptors are not negatively impacted by the construction and operational phases.	Construction
27	6.7.1.2	ADF	<p>The primary potential impacts of the future development and operation of the ADF are considered to be local in nature and are identified above as;</p> <ul style="list-style-type: none"> Loss of nesting habitat to birds (with gain for some species); Loss of foraging habitat for mammals and other terrestrial species (with gain for some species); and Temporary disturbance or displacement of species such as birds and bats. <p>Measures are hereby outlined which mitigate against the aforementioned local impacts; no additional mitigation measures specifically relating to designated sites or habitats and species protected under the Habitats and Birds Directives respectively are proposed.</p>	Construction and Operation

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			<p>The ADF will continue to fully comply with the requirements of its IE Licence (P0611-02). Current operational landfill methods will continue including wetting of material as ash is landfilled, working one cell at a time.</p> <p>Mitigation measures for habitats on site are as follows:</p> <ul style="list-style-type: none"> No vegetation outside the ADF planning boundary will be removed or disturbed as part of the proposed works; Any scrub clearance to develop the remaining cells will take place during September to February inclusive (outside the bird breeding season) to avoid disturbance to birds using this habitat for nesting; Should the period between scrub clearance and the construction of the new cell (surface stripping, berm construction etc.) facilitate the colonisation of the site by ruderal vegetation, the area will be surveyed in advance of cell construction to confirm the absence of ground-nesting birds; and The overall extent of low ecological value bare ground will be minimised by the successive opening and capping of cells within the ADF only as they become necessary. <p>The mitigation measures outlined above will ensure that habitats outside the ADF boundary (e.g. Bord na Móna Biodiversity Areas) will not be affected by the ADF development. Additionally, to minimize impacts to any mammals occurring in the locality of the ADF, the following measures</p> <ul style="list-style-type: none"> will be implemented: Mammal-proof fencing around the existing leachate lagoon will be maintained during construction and operations to ensure exclusion of animals; this will be extended to encompass the additional leachate lagoon(s). 	
28	6.7.2.2 / 6.4.1	WOP	<p>Regarding the operating stage for the WOP Station, no additional mitigation is proposed beyond the inherent environmental protection measures as conditioned by the existing IE licence and described in Section Error! Reference source not found., reproduced below:</p> <p><i>The potential effects from the proposed development have been assessed with the following environmental controls already in place: The WOP station including the ADF currently operates under the EPA IE licence P0611-02. It also underwent a full planning cycle accompanied by an Environmental Impact Assessment at the time of planning. A suite of established mitigation measures are in place for existing surface water discharges from the site, and these are presented in Chapter 8 – Surface Water.</i></p> <p><i>It is noted that there are no additional discharge points proposed as part of the proposed project and there are no instream or bankside works required. Surface water runoff generated from the new biomass storage slabs will connect to the existing drainage network associated with PS-SW6 and surface water runoff generated from the new pellet storage area will connect to the existing drainage network associated with PS-SW7. Drainage from the new biomass and pellet storage areas associated with the proposed development will be subject to the following design measures:</i></p> <ul style="list-style-type: none"> <i>The biomass storage areas (Slab A and Slab B) will incorporate the following:</i> <ul style="list-style-type: none"> <i>New attenuation system;</i> <i>Drainage channels;</i> <i>New silt traps;</i> <i>New settlement tank;</i> <i>New oil interceptor.</i> <i>The pellet storage area will incorporate the following:</i> <ul style="list-style-type: none"> <i>New attenuation system associated with Storage Slab A above.</i> <p><i>Further details of the drainage design for the proposed project are contained in Appendix 8.5.</i></p>	Operation
29	6.7.2.2 / 6.4.1	ADF	<p>The WOP ADF operates to its IE Licence requirements and specifically to an EPA approved Landfill Operational Plan. Additionally, measures to attenuate and treat the runoff have been incorporated into the drainage design of the proposed development. No further mitigation is proposed above that outlined in Section 6.4.1 (see above).</p> <p>Overall, there will be no net increase of operational activities at the site (the north and east sector of the ADF will become progressively less active as the ash infilling progresses towards the southeast boundary). No specific additional mitigation measures are therefore proposed.</p>	Operation

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30	6.7.2.3	Peat Supply Bogs	<p>A broad series of existing environmental protection measures are provisioned by the IPC licencing regime for the respective supply bog groupings, as regulated by the EPA. These are presented in Table 6-11 in Chapter 6 of the EIAR.</p> <p>The implementation and ongoing review of the above measures at the supply bogs is a condition of the respective licenses.</p>	Operation
31	6.7.2.3	Peat Supply Bogs	<p>Bord na Móna is currently implementing a programme of measures as outlined below, across their operations to mitigate against adverse impacts on water quality.</p> <p>Bord na Móna have an on-going silt pond maintenance programme. These silt ponds are currently being surveyed in order to identify silt ponds that may require extensions and other improvements in capacity as a result of changes to drainage catchments or impending peat regulations. Changes to drainage catchments are due to the extent of resource extraction since the silt ponds were originally developed as well as changes to internal outfalls and drainage regimes.</p> <p>BNM have prepared and submitted all the required draft Rehabilitation Plans for the peatlands supplying WOP, with updates provided periodically and in the Annual Environmental Report. A number of bogs within the IPC Licensed peatlands have already been decommissioned and rehabilitated as required by the licence. The rewetting of former peat production areas and the development of wetland habitats will inevitably reduce potential for loss of suspended solids to the drainage network and ultimately to the Shannon river system, Boyne river system and Barrow river system.</p> <p>In addition, the National Peatlands Strategy sets out high level actions to be undertaken to ensure peat production does not have a detrimental impact on water quality, and to ensure that peatlands can contribute positively to achieving the objectives of the WFD. These actions are:</p> <p>“For all peatland related activities, it should be demonstrated that they do not, either individually or in-combination with other activities, adversely impact on the environmental objectives of the WFD, associated daughter Directives and national regulations.</p> <ul style="list-style-type: none"> Peatland related activities should not significantly alter the environmental supporting conditions for Natura 2000 sites such that these cause a failure of the conservation objective for that designated habitat and by inference cause a risk of the WFD environmental objectives relating to protected areas not being met.” <p>These actions are subsequently noted in the RBMP for Ireland, which identifies the following principal actions to address potential impacts on water caused by peatland harvesting:</p> <ul style="list-style-type: none"> The Minister for Housing, Planning and Local Government intends to make regulations as soon as possible that will require the EPA to carry out EIA for all existing and new large-scale peat extraction (> 30ha) as part of its examination of IPC license applications for the activity. When these regulations are made, proposals will be developed for public consultation relating to a new regulatory regime that will bring smaller-scale commercial peat extraction (≤ 30ha) under a new local authority licensing system incorporating EIA and AA, as necessary, and enforcement powers. The DCHG, together with the Peatlands Strategy Implementation Group, will oversee the implementation of the National Peatland Strategy and the first national management plan for Ireland’s raised-bog Special Areas of Conservation (SACs) network. The principal aims of these are: <ul style="list-style-type: none"> To provide a long-term framework within which all of the peatlands in the State can be managed responsibly in order to optimise their social, environmental and economic contribution to the well-being of this and future generations In the case of the National Raised Bog Special Areas of Conservation Management Plan 2017–2022, to specifically set out a roadmap for the long-term management, restoration and conservation of protected raised bogs in Ireland Bord Na Móna will implement its Sustainability 2030 Strategy and Biodiversity Action Plan 2016–2021, which addresses the long-term rehabilitation of its cutaway bogs. By 2021, Bord Na Móna will rehabilitate an additional 25 peatlands covering approximately 9,000ha. This is subject to several assumptions, including the availability of cutaway bogs for rehabilitation. The EPA has identified this priority issue as the subject of a research proposal for inclusion in its 2018 research call. The proposal involves evaluating mitigation strategies for improving water quality from drained peatlands. The project proposal, if selected, is intended to integrate with the ongoing mitigation trials being undertaken by Bord Na Móna. 	Operation

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32	6.7.2.3	Peat Supply Bogs	<p>Bord Na Móna has set out action plans for the long-term rehabilitation of cutaway bogs, acknowledging obligations under the Water Framework Directive and the Habitats and Birds Directives. The Bord Na Móna Sustainability 2030 Strategy and Biodiversity Action Plan 2016-2021 are built around the commitment from Bord Na Móna to cease harvesting energy peat by 2030. Some Key Action Areas under this Biodiversity Action Plan include:</p> <ul style="list-style-type: none"> • Developing a map of ecosystem goods and services for Bord Na Móna lands; • Adding to the raised bog network under the Bord Na Móna Raised Bog Restoration programme; • Assimilation of the outcomes relating to rehabilitation and restoration on Bord na Móna bog areas to develop best practice guidelines that can be translated to a range of peatland types • Continuing with the long term rehabilitation of the cutaway bogs; and • Control and monitoring of invasive species. 	Operation
33	6.7.2.4	WOP & ADF	Water quality monitoring will be undertaken as indicated in the IE Licence as agreed by the EPA and supported by the existing on site certified EMS system. No further monitoring is proposed above IE licence requirements.	Operation
34	7.5.1	WOP	<p>The station is managed under EPA IE licence P0611-02 which enforces control measures to mitigate against potential risk to groundwater. During the construction phase additional mitigation measures, other than compliance with the limits regulated by the EPA, are considered necessary in terms of groundwater. To avoid potential impacts the following guidelines will be implemented as appropriate:</p> <ul style="list-style-type: none"> • Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors' (CIRIA, 2001). • Inland Fisheries Board Guidance Document (formerly developed by Eastern Fisheries Board) "Requirements for the protection of fisheries habitat during Construction and development works at river Sites"; • UK Environment Agency: <ul style="list-style-type: none"> ○ GPP5 Guidance for Pollution Prevention Works and Maintenance in or near Water; ○ GPP21 Pollution Incident Response Planning; ○ GPP22 Dealing with Spills; and ○ PPG26 Pollution Prevention Guidelines Drums and Intermediate Bulk Containers • In the event that confirmatory site investigations at construction locations identifies contaminated soil this will be removed by a licenced waste contractor as appropriate and safety requirements for all construction workers will be ensured. In line with good engineering practice the following UK Guidance will be implemented Environment Agency (England and Wales) (2001) Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention. 	Construction
35	7.5.1	WOP	<p>In addition the following current mitigation measures as developed in compliance with the IE Licence for the Site will be maintained during construction, operation and decommissioning, see Error! Reference source not found.</p> <ul style="list-style-type: none"> • All tank, container and drum storage areas shall be rendered impervious to the materials stored therein. • Bunds shall be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004). • All tank and drum storage areas shall, as a minimum, be bunded. • All drainage from bunded areas shall be treated as contaminated unless it can be demonstrated to be otherwise. • All drainage from bunded areas shall be diverted for collection and safe disposal unless it can be deemed uncontaminated. • All inlets, outlets, vent pipes, valves and gauges must be within a bunded area. • The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the installation. Once used, the absorbent material shall be disposed of at an appropriate facility. • The licensee shall maintain oil separators at the installation. • All pump sumps, storage tanks, lagoons or other treatment plant chambers from which spillage of environmentally significant materials might occur in such quantities as are likely to breach containment or separators, shall be fitted with high liquid level alarms or oil detectors as appropriate. <p>The provision of a catchment system to collect any leaks from flanges and valves of all over ground pipes used to transport material other than water shall be examined.</p>	Construction, Operation & Decommissioning

Mitigation Measure No.	EIAR Section Ref.	Relevant Site (WOP/ADF)	Description of Mitigation Measure / Environmental Commitments	Stage of Impact (i.e. Construction, Operation, Decommissioning Phase)
36	7.5.2	ADF	The main mitigation measure will be the full implementation and compliance with the limits of the IE Licence as regulated by the EPA and which are considered necessary in terms of groundwater. The proposed ash cells will be constructed with the same drainage system as the current cells. The landfill will be engineered and constructed in accordance with the EPA approved Landfill Operational Plan as required by the Stations IE Licence.	Construction
37	7.5.2	ADF	The following mitigation measures will be implemented to minimise the impact on groundwater: <ul style="list-style-type: none"> All temporary tank and drum storage areas shall be bunded. Adequate supply of containment booms and suitable absorbent material to contain and absorb any spillage or leak maintained at the ADF. Once used, the absorbent material shall be disposed of at an appropriate facility. Designated vehicle refuelling points will be implemented where vehicles can be refuelled in a controlled environment.	Construction
38	7.5.2	ADF	The following mitigation measures will be implemented to minimise the impact on groundwater: <ul style="list-style-type: none"> Impermeable liner and good modern design in accordance with landfill directive (Council Directive 1999/31/EC) requirements which includes a leachate alarm and pumping facility. Capping of each cell within two years of completion to minimise the volume of leachate generated as per the current IE Licence requirement. Monthly, quarterly and annual groundwater monitoring and reporting to EPA as directed by the EPA License monitoring requirements. 	Operation
39	7.5.2	ADF	Monitor groundwater for capping failure and in accordance with the closure and aftercare management plan (CRAMP) for a period of 10 years following closure. As agreed with the EPA.	Decommissioning
40	7.5.2.1	Peat Supply Bogs	Control Measures Applicable to Bord na Mona Bogs: <ul style="list-style-type: none"> Effective spill/leak management of mobile fuelling units. Replacement (and remediation where necessary) of all underground fuel tanks. There shall be no other emissions to water of environmental significance. All tank and drum storage areas shall be rendered impervious to the materials stored therein. In addition, tank and drum storage areas shall, as a minimum be bunded, Drainage from bunded areas shall be diverted for collection and safe disposal. The integrity and water tightness of all the bunding structures and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the licensee to the satisfaction of the Agency and shall be reported to the Agency within eighteen months from the date of grant of this licence and every two years thereafter. The loading and unloading of fuel oils shall be carried out in designated areas protected against spillage and leachate run-off. While awaiting disposal, all materials shall be collected and stored in designated areas protected against spillage and leachate run-off. With the exception of roof water, all surface water discharges from workshop areas shall, be fitted with oil interceptors. An inspection for leaks on all flanges and valves on over-ground pipes used to transport materials other than water shall be carried out weekly. The licensee shall undertake a programme of testing and inspection of underground fuel pipelines to ensure that all underground fuel lines are tested at least every three years. The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage. The licensee shall maintain a log of bi-annual inspections of all rail and tractor transported fuelling units. These inspections as a minimum should record any damage or leaks or flaws in rolling stock that could result in accidental spillage. The licensee shall ensure that a documented Emergency Response Procedure is in place which shall address any emergency situation which may originate on-site. This Procedure shall include provision for minimising the effects of any emergency on the environment A maintenance/cleaning log for all oil interceptors and septic tanks shall be maintained. This log shall also record the observations made during weekly inspections of all oil interceptors and bi-annual inspections of septic tanks. 	Operation

Mitigation Measure No.	EIAR Section Ref.	Relevant Site (WOP/ADF)	Description of Mitigation Measure / Environmental Commitments	Stage of Impact (i.e Construction, Operation, Decommissioning Phase)
41	8.6.1	WOP	<p>To avoid the pollution of waterbodies during the construction phase all construction works will be completed in line with the recommendations of the following guidelines:</p> <ul style="list-style-type: none"> • CIRIA C649 Control of Water Pollution from Linear Construction Projects: Site Guide (Murnane et al. 2006); • 'Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors' (CIRIA, 2001). • Inland Fisheries Ireland "Guidelines on protection of fisheries during construction works in and adjacent to waters" (IFI, 2016). • Requirements for the protection of fisheries habitat during Construction and development works at river Sites"; • UK guidance: <ul style="list-style-type: none"> ○ GPP5 Guidance for Pollution Prevention Works and Maintenance in or near Water; ○ GPP21 Pollution Incident Response Planning; ○ GPP22 Dealing with Spills; and ○ PPG26 Pollution Prevention Guidelines Drums and Intermediate Bulk Containers. 	Construction
42	8.6.1	WOP	<p>To avoid the pollution of waterbodies during the construction phase the following measures to be implemented by the contractor:</p> <ul style="list-style-type: none"> • Provision of measures to prevent the release of sediment to WB1 and WB2 during the construction works will include but not be limited to silt fences, silt curtains, settlement lagoons, settlement tanks and filter materials; • Temporary construction surface drainage and sediment control measures will be in place before any earthworks commence; • Provision of exclusion zones and barriers (sediment fences) between earthworks, stockpiles and temporary surfaces and waterbodies to prevent sediment washing into the waterbodies or drainage system; • Limiting the extent of vegetation clearance and thereby minimising the potential release of sediment from bare ground following clearance; • No storage of hydrocarbons or any toxic chemicals will occur within 50 m of any waterbody. • Fuel storage tanks chemical containers etc. will be bunded to a capacity at least 110% of the volume of the storage tank. • Re-fuelling of plant will not occur within 50 m of any waterbody and only in bunded refuelling areas. Emergency procedures and spillage kits will be available and construction staff will be familiar with emergency procedures. 	Construction
43	8.6.1.1	WOP	<p>Water quality monitoring will be undertaken as indicated in the IE Licence as agreed by the EPA and this will be supported by monitoring undertaken by the contractor. WOP will undertake the biannual monitoring regime to include the Shannon River, with key pollution indicators analysed on a regular basis from locations on site and up and downstream of the site. The results of this monitoring will be reported to the EPA to demonstrate no adverse effects.</p> <p>The contractor will be required to monitor the construction related discharge before it joins the operational site drainage and ensure that suspended sediment levels are no more than 25mg/l and contains no oily water prior to discharge to the onsite drainage system.</p> <p>The onsite drainage system includes oil interceptors for both PS-W7 and PS-SW6.</p> <p>In addition, daily visual inspections of the surface drainage and sediment control measures and the waterbodies will be undertaken by the contractor and these will be documented and reported to the station environmental officer. Indicators that water pollution may have occurred include the following:</p> <ul style="list-style-type: none"> • Change in water colour; • Change in water transparency; • Increases in the level of silt in the water; • Oily sheen to water surface; • Floating detritus; or • Scums and foams. 	Construction

Mitigation Measure No.	EIAR Section Ref.	Relevant Site (WOP/ADF)	Description of Mitigation Measure / Environmental Commitments	Stage of Impact (i.e Construction, Operation, Decommissioning Phase)
44	8.6.2	WOP	<p>Measures to attenuate and treat the runoff have been incorporated into the drainage design of the proposed new elements, namely slab A and Slab B, of the proposed development. No further mitigation is proposed above that outlined in Section 8.5.1.2.</p> <p>There are no additional mitigation measures proposed in relation to the peat supply bogs over those required as part of the current IE Licence requirements, see also Chapter 6.</p>	Operation
45	8.6.2	WOP	ESB will ensure that only biomass which has received sustainability certification is used. No other mitigation measures are proposed in relation to the biomass supply.	Operation
46	8.6.2.1	WOP & ADF	Water quality monitoring will be undertaken as indicated in the IE Licence as agreed by the EPA and supported by the existing on site certified EMS system. No further monitoring is proposed above IE Licence requirements.	Operation
47	9.6	WOP	<p>The noise predictions have been based upon measurements of on-site use of a wheeled loader rather than typical sound power levels for a wheeled loader and this gives more accurate results. Since no measurements were obtained where the wheeled loader was not using the reversing alarm it is difficult to exactly quantify the effect this has on the predicted noise levels. However, removing the obvious peak in the sound power levels at 2 kHz is estimated to provide 3-4 dB of reduction at the nearest NSLs. Furthermore, removing the 2 kHz tone would also remove the 5 dB tonal penalty incurred by this noise source, reducing the rating level (for comparison with NG4 limits) by 8-9 dB in total. This is a well-known problem with tonal reversing alarms which can be solved by using an alternative alarm system and ESB are therefore committed to use of an alternative reversing alarm which uses a white noise signal.</p> <p>An example of the type of technology that could be used is the bbs-tek white sound reversing alarm from Brigade Electronics. It is a 'white sound' alarm which meets the challenge of providing safety whilst eliminating noise complaints by dissipating quickly outside of the hazard zone. This type of alarm does not contain the distinctive tonal element that would require a 5 dB penalty according to NG4, yet it would still provide the same alerting effect. The use of this type of alarm or its equivalent would provide appropriate mitigation and will be implemented on the wheeled loaders used onsite.</p>	Operation
48	9.6	WOP	For NSL 1, NSL 2 and NSL 3, removal of the tonal reversing alarm would be likely to reduce the predicted change in noise level (for biomass operations rather than peat) to 3 – 4 dB which is only of marginal significance. This would also reduce the rating level such that recommended noise limits could be met at NSL 2 and NSL 3. However, the predicted change in noise level and the amount by which the noise limits are exceeded are considerably greater at NSL 1 and NSL 4 indicating that additional mitigation will be required to further reduce the noise impact at these locations.	Operation
49	9.6	WOP	The location of Storage Slab B provides no acoustic shielding in the form of buildings between the wheeled loader operations and NSL 4 and in this respect there is scope to introduce an acoustic barrier at Storage Slab B to mitigate the noise of the wheeled loader operations. The effectiveness of an acoustic barrier would depend upon the relative location of a wheeled loader and generally speaking it would be more effective for operations closer to the barrier. However, it is considered that through careful planning of operations and use of an appropriate barrier it should be possible to provide sufficient mitigation. Predictions indicate that a 3.6 m high barrier around the perimeter of Storage Slab B would offer 11 and 13 dB reduction to the level of noise arriving at NSL 1 and NSL 4 respectively, for a wheeled loader operating at the centre of the Slab.	Operation
50	9.6	WOP	<p>In order to mitigate noise impacts and ensure compliance with the EPA NG4 Guidance noise limits for day and evening periods, the following will therefore be implemented as appropriate:</p> <ul style="list-style-type: none"> • A noise barrier such as the proposed 3.6m high 'Alphabloc' system detailed on the drawing entitled 'Biomass Storage Slab B Proposed Layout Plan' (QS-000206-01-D460-034) will be installed at Slab B and is considered appropriate for this purpose (providing the predicted reduction in noise levels discussed above) • Limiting wheeled loader use on Storage Slab B to daytime hours only (as defined in NG4). • Fitting all wheeled loaders with 'white sound' reversing alarms such as those supplied by Brigade Electronics or equivalent. 	Operation

Mitigation Measure No.	EIAR Section Ref.	Relevant Site (WOP/ADF)	Description of Mitigation Measure / Environmental Commitments	Stage of Impact (i.e Construction, Operation, Decommissioning Phase)
51	9.6	WOP	<p>It is expected that the noise limits set in any revised licence by the EPA will be in line with those specified in NG4 for the day and evening periods, against which this development has been assessed, and the station will comply with the IE Licence requirements with respect to noise. It is expected that noise limits will be set in any revised IE Licence by the EPA and as such all operations on site will be undertaken in a manner that ensures that the EPA IE Licence noise limits for daytime, evening time and night-time will not be exceeded.</p> <p>This will be achieved by:</p> <ul style="list-style-type: none"> ○ Scheduling appropriate peat and biomass fuel deliveries and handling appropriately as demonstrated by appropriate noise monitoring as per the requirements of the IE Licence required to operate the facility. ○ Investigation of mitigation to overall operational noise from the plant, excluding deliveries, for the night hours period, as required by any new licence 	Operation
52	10.7.1.1	WOP	Best practice in engineering construction, such as CIRIA Guidance, will be followed to ensure minimum GHG emissions to atmosphere during construction. This will include efficient use of resources, materials, transport and equipment use and minimising waste generation.	Construction
53	10.7.1.2	WOP & ADF	<p>The potential for dust during construction depends on a number of factors, most notably the prevalent weather conditions. While a need for significant active dust control during construction is not foreseen, good practice site management measures will be implemented as necessary and will include as a minimum the following:</p> <ul style="list-style-type: none"> • A water bowser will be available to spray work areas, especially during periods of excavations works coinciding with dry periods of weather. This will prevent dust migration offsite to sensitive receptor areas. • Use of appropriately covered trucks during delivery of materials to the site to minimise the potential for fugitive emissions • Stockpiled material during the construction phase will be sprayed during periods of dry weather in order to suppress dust migration from the site. • Wheel wash facilities exist at the WOP and ADF site and will be used for construction related traffic as required and • Use of mechanical road sweeper at the entrance from the public road. • Dust suppression by water spray on access tracks as required. • Control of vehicle speeds within the WOP and ADF site. • Regular inspection of public roads outside the WOP and ADF site for cleanliness and cleaning as necessary. • Regular inspection and maintenance of the concrete batching plant equipment and dust control equipment. • The dust minimisation measures will be reviewed at regular intervals during the construction phase to ensure the effectiveness of the procedures in place and to maintain the goal of minimisation of dust through the use of best practice and procedures. 	Construction
54	10.6.2.1	WOP	Biomass will be sourced from certifiable sustainable sources with independent auditing to confirm the level of GHG savings achieved.	Operation
55	10.6.2.1	WOP	The station will operate in accordance with its IE Licence which in turn requires the implementation of best available techniques (BAT) to minimise emissions from the station and to ensure it operates in the most efficient manner possible. The station operated at an efficiency level of 36.1% (AER 2017) which is well within the BAT requirement range for stations of this type.	Operation
56	10.6.2.1	ADF	Good engineering practice will be followed in the ongoing operation of the ADF to minimise the fuel use and release of GHG to the atmosphere.	Operation
57	10.7.2.2	WOP	The WOP station site will operate strictly in accordance with the EPA IE Licence Conditions which reflect the requirements of the EU Commission in terms of best available techniques being employed to ensure plant operational efficiency, emission control and monitoring systems. Annual plant performance will continue to be reported to the EPA in the form of an Annual Environmental Report.	Operation
58	10.7.2.2	WOP	To mitigate against biomass wind blow the biomass storage areas permanent retaining wall at Slab A has been designed to accommodate a dust screen which will be put in place should monitoring indicate that wind-blown dust becomes an issue.	Operation
59	10.7.2.2	WOP	A water bowser will be available to spray biomass storage areas, especially during dry weather periods to minimise biomass mobility. This will prevent dust migration offsite to sensitive receptor areas	Operation

Mitigation Measure No.	EIAR Section Ref.	Relevant Site (WOP/ADF)	Description of Mitigation Measure / Environmental Commitments	Stage of Impact (i.e Construction, Operation, Decommissioning Phase)
60	10.7.2.2	ADF	<p>At the ADF the requirements for the landfill management are set out in IE Licence Condition 3.16. The development of the landfill is strictly controlled by the EPA through the licence with prior approval of specified engineering works required before implementation. This includes the requirement to develop and implement a Landfill Operational Plan to the satisfaction of the EPA for all active, closed and restored landfill cells and landfilling activities at the installation.</p> <p>The key Mitigation set out in the Landfill Operational Plan with respect to dust control is as follows:</p> <ul style="list-style-type: none"> • 15 – 18% moisture will be added to the ash as it is dispensed from the ash silo at the WOP station into the ash wagons, and • The ash wagons are covered with hydraulically controlled lids as can be seen from Error! Reference source not found. in Chapter 10 of this EIAR. The ash wagon lids will remain closed at all times during transportation of ash from WOP to the ADF. • A further 15% of moisture is added to the ash as it is deposited and levelled in the cell at the ADF. This water / leachate will be deployed using a tractor and slurry tanker. • Water / Leachate will be sprayed on the deposited ash at regular intervals to prevent dust during dry summer weather. 	Operation
61	10.7.2.2	ADF	<p>Water / Leachate required for dust suppression will be sourced from the following:</p> <ul style="list-style-type: none"> • The leachate collected in the monitoring manhole may be spread over the ash. • A recirculation pump (ITT Flygt N3127180 487 Impeller 5.9kW motor) has been installed in the leachate lagoon. This pump is capable of recirculating leachate from the lagoon to the cell through 450m of 4" lay flat hose. Leachate is also removed from the lagoon by tanker and recirculated over uncapped cells as a dust suppression method. 	Operation
62	10.7.2.2	ADF	The Landfill Operational Plan also sets out procedures for operation during adverse weather conditions. The landfill will be developed on a cell by cell basis with each cell being capped by an impermeable barrier layer, a drainage layer and soil layer within two years of the cell being filled.	Operation
63	10.7.2.2	ADF	The final closure of the landfill will be in accordance with the Closure, Restoration and Aftercare Management Plan prepared in accordance with Condition 10. 2 of the IE Licence and approved by the EPA.	Decommissioning
64	10.7.2.2	ADF	The measures described in the Landfill Operational Plan are 'good practice' measures and are designed to ensure that the construction activities do not generate excessive dust or particulate material release. Employment of such measures will ensure that no significant dust effects occur during project construction, operation or decommissioning and closure.	Operation
65	10.7.2.2	Wop & Peat Supply Bogs	Indirect releases of dust from WOP Station and the peat supply bogs are controlled under their respective EPA Industrial Emission Licence conditions. Bord na Móna operate the peat harvesting sites under their EMS system with best industry practice used to control dust emissions from their harvesting, storage and transport operations.	Operation
66	10.7.3	WOP	The indirect impacts of greenhouse and transboundary gases SO ₂ , NO _x , VOCs and NH ₃ are controlled under the Industrial Emissions licences issued by the EPA to WOP and to Bord na Móna for their peat harvesting operations. These set emission limit values which must be complied with and which are derived from the European Commission's publications on Best Available Techniques to limit emissions from large combustion plants and for other land use activities.	Operation
67	10.7.3	WOP	Emissions of CO ₂ are controlled under the European Emission Trading Scheme (ETS). Carbon emissions from WOP Station are accounted for in the pan EU Emissions Trading Scheme (ETS). The ETS is a cap and trade scheme, established in 2005, that restricts CO ₂ emissions from the major emitting sectors in Europe. It was established under Directive 2003/87/EC and its amendments and is implemented in Ireland under S.I. 490 of 2012 and amendments and S.I. No. 261 of 2010 and amendments. It is a mandatory requirement for power generators such as West Offaly Power to participate in the scheme.	Operation

Mitigation Measure No.	EIAR Section Ref.	Relevant Site (WOP/ADF)	Description of Mitigation Measure / Environmental Commitments	Stage of Impact (i.e Construction, Operation, Decommissioning Phase)
68	10.7.3	WOP	Under the ETS scheme West Offaly Power operates under a GHG emission permit (IE-GHG077-10385-4), issued by the Environmental Protection Agency, which allows it to operate and emit CO ₂ surrendering a certificate for each tonne of CO ₂ emitted. The total number of carbon credits in the scheme is set at EU level and is set at a level which aims to reduce CO ₂ emissions progressively to 43% below 2005 levels by 2030 in line with the EU Council 2030 climate and energy policy framework. With the ETS, the EU has predetermined how many credits are available for each year and so this establishes how much carbon can be emitted across the EU in any year while maintaining a trajectory to the overall target of the scheme.	Operation
69	10.7.3	ADF	<p>At the ADF the requirements for the landfill management are set out in IE Licence Condition 3.16. The development of the landfill is strictly controlled by the EPA through the licence with prior approval of specified engineering works required before implementation. This includes the requirement to develop and implement a Landfill Operational Plan to the satisfaction of the EPA for all active, closed and restored landfill cells and landfilling activities at the installation.</p> <p>The key Mitigation set out in the Landfill Operational Plan with respect to dust control is as follows:</p> <ul style="list-style-type: none"> • 15 – 18% moisture will be added to the ash as it is dispensed from the ash silo at the WOP station into the ash wagons, and • The ash wagons are covered with hydraulically controlled lids as can be seen from Error! Reference source not found. in Chapter 10 of this EIAR. The ash wagon lids will remain closed at all times during transportation of ash from WOP to the ADF. • A further 15% of moisture is added to the ash as it is deposited and levelled in the cell at the ADF. This water / leachate will be deployed using a tractor and slurry tanker. • Water / Leachate will be sprayed on the deposited ash at regular intervals to prevent dust during dry summer weather. 	Operation
70	11.6	WOP & ADF	During the construction phase it will be standard practise to ensure that there is no disruption to the existing major utilities at both the WOP Station and ADF. This requirement and the measures put in place to ensure this does not occur is detailed in the construction methodology provided in Appendix 4.2 of this EIAR.	Construction
71	12.7	WOP	<p>A Delivery Management Plan (DMP) has been prepared to manage the routing of delivery traffic, see Appendix 12.3.</p> <p>As part of this DMP a route preference assessment has been undertaken. The objective of this route assessment is to maximise the use of the motorway network and then the national road network for deliveries, to minimise the impact on local populations, to minimise impact on schools and maximise safety.</p> <p>The DMP will be used to encourage and monitor responsible driving behaviour and safe driving habits by the suppliers of the biomass and peat.</p> <p>The key requirements of the DMP are as follows:</p> <ul style="list-style-type: none"> • ESB will appoint a Delivery Manager. • The Delivery Manager will monitor deliveries. • Fuel deliveries to WOP will be via clearly identifiable WOP delivery vehicles, where practical. • A complaints procedure will be implemented. • All delivery vehicles will be tracked utilising GPS technology or alternative means of tracking. <p>The Delivery Manager will produce an annual monitoring report.</p>	Operation
72	12.7	WOP	A Workplace Travel Plan Statement is also required to encourage sustainable travel to WOP Station.	Operation

Mitigation Measure No.	EIAR Section Ref.	Relevant Site (WOP/ADF)	Description of Mitigation Measure / Environmental Commitments	Stage of Impact (i.e Construction, Operation, Decommissioning Phase)
73	13.6.2.2	ADF	<p>As noted in Section 13.5.2.1, groundworks associated with developments such as the ADF have the general ability to uncover and disturb hitherto unrecorded subsurface features, deposits, structures and artefacts of archaeological interest and potential, particularly within and under existing peat-bogs which, as discussed in Section 13.4.2.6, are of significant archaeological potential.. Consequently, the following mitigation measures are suggested:</p> <ol style="list-style-type: none"> 1. Prior to the commencement of site preparation/construction works, an archaeologist shall be appointed to oversee all required archaeological mitigation strategies, in consultation with the Bord na Móna Project Archaeologist. 2. An archaeological monitoring programme, appropriate to the nature of the site and proposed site preparation/construction works methodology, shall be defined by (or agreed with) the Bord na Móna Project Archaeologist. In the event of archaeological material being uncovered during the course of such monitoring, the archaeologist shall be empowered to have works stopped in the vicinity of such material pending receipt of advice from the National Monuments Service. Likewise should archaeological/historical artefactual material be recovered during such works, then the requirements of the National Museum of Ireland with regard to such items should be implemented. 3. Following completion of all monitoring and any other possible archaeological investigations associated with each phase of works, the archaeologist shall prepare a report for submission to the Planning Authority and the Department of Culture Heritage and the Gaeltacht. 	Construction and Operation