

16 Mitigation and Monitoring

16.1 Introduction

The purpose of this section is to collate the mitigation and monitoring measures identified in the Environmental Impact Assessment Report (EIAR) that are considered necessary to protect the environment prior to, and during the construction and restoration phases of the Proposed Project (See Chapter 2 for Project Description). As described throughout this EIAR, the outline design of the Proposed Project has been progressed by taking account of environmental constraints and considerations that have been identified, thereby enabling avoidance of potential environmental impacts.

16.2 Mitigation Measures

Mitigation and environmental commitments have been identified as general requirements which will help to avoid, reduce or offset potential impacts and are relevant to a number of the environmental aspects addressed in the EIAR.

General and specific mitigation measures¹ identified within the EIAR technical assessments are provided in **Table 16-1** to **Table 16-13**. The timing of the implementation of the mitigation measures is indicated within the tables also:

Construction Phase: This includes the undertaking of enabling works and infilling works: and

Restoration Phase: The undertaking of the final physical works to fully restore the infilled site to agricultural use upon cessation of infilling activities.

16.3 Monitoring Measures

A number of environmental monitoring activities are to be continued during the operational and restoration phases. These monitoring activities are required to confirm the effectiveness of the mitigations, to define the quality of the surrounding environment, and to establish if there are any trends in environmental parameters. Monitoring measures have been identified in each of the technical chapters and an overall monitoring schedule has been provided in **Table 16-14**.

¹ Including embedded mitigation where relevant.

Table 16-1 - General Environmental Mitigation Requirements

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|--|------------------------------|
| GM1 | <p>The Applicant will continue to implement the Environmental Management System at their Site. The purpose of the system is:</p> <ul style="list-style-type: none"> ■ Minimise the environmental impact of the operation; ■ Ensure compliance with environmental legislation; ■ Provide a system of continuous improvement in environmental performance; and ■ Provide a means to achieve the operation's environmental policy. <p>The EMS shall be submitted for agreement with Kildare County Council (KCC). The EMS shall contain the mitigation measures and plans identified in the following Sections (as a minimum), and also the wider EIAR. The Applicant shall incorporate into the EMS and implement the conditions set out in the planning approval. The EMS shall set out all the intended methods to manage potential environmental impacts from the operation and restoration of the Site. The EMS is a live document and will be reviewed on a regular basis and updated accordingly by the Applicant, in particular the document shall be reviewed on receipt of planning approval in accordance with the relevant planning conditions.</p> | Construction and Restoration |
| GM2 | <p>The key elements of the EMS shall include:</p> <p>Appointment of an Environmental Officer by the Applicant for the duration of the activities.</p> <p>Incorporation of environmental commitments, purpose and objectives of the activities.</p> <p>Incorporation of procedures to record any environmental incidents on site and procedures for implementing appropriate corrective and preventative measures.</p> <p>Outlining the relevant guidance (with those outlined in the EIAR as a minimum) that have informed the Plan development.</p> | Construction and Restoration |

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|--|------------------------------|
| | <p>Incorporation of procedures for staff environmental awareness.</p> <p>Incorporation of environmental monitoring procedures.</p> <p>Incorporation of a system of audit and review</p> | |
| GM3 | The Applicant shall ensure that the EMS is fully implemented during the construction and restoration phases, to prevent or reduce the impacts identified in the impact assessment. | Construction and Restoration |
| GM4 | The Applicant will implement the Restoration Plan at their Site. This plan will identify the methods by which the restoration works will be managed to meet these commitments and requirements. The Restoration Plan shall be submitted for agreement with KCC. The Restoration Plan will be carried out in accordance with the provisions of the EMS. | Construction and Restoration |
| GM5 | The Applicant shall ensure that the Restoration Plan is fully implemented during the restoration phase in agreement with KCC, to ensure that the site is restored in the interest of environmental sustainability, visual amenity, traffic safety, adjoining residential amenity, and proper planning and sustainable development of the area. | Restoration |
| | NOTE: Any further general environmental mitigation measures within authorisation or consents to be included in this section and adhered to. | Construction and Restoration |

Table 16-2 - Specific Environmental Mitigation Requirements - Population and Human Health

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|---|---------------------------|
| | No mitigation measures or monitoring is proposed. | |

Table 16-3 - Specific Environmental Mitigation Requirements - Ecology and Biodiversity

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|---|------------------------------|
| EB1 | <p>Restoration Plan</p> <p>A Restoration Plan has been prepared and submitted with this Section 37L Application, which proposes the creation of new habitats following the completion of infilling works. With regard to the loss of calcareous grassland and scrub, the Restoration Plan includes for the expansion of the existing boundary hedgerows/treelines via the planting of a mix of native shrubs. In addition, it proposes the inclusion of a buffer strip of semi-natural grassland, which will extend along the boundary and will be adjacent to the expanded hedgerow/treeline.</p> | Restoration |
| EB2 | <p>Amphibians</p> <p>Where scrub adjacent to small ponds (i.e. not including the collected waters in the quarry void) needs to be cleared, vegetation will be trimmed to 15 cm to allow individuals to move out of the way prior to works and a hand search conducted prior to the works by a suitably experienced ecologist.</p> <p>Any amphibian species found will be carefully moved out of harm's way with a gloved hand to nearby and suitable vegetation outside of the working area.</p> <p>In the event that breeding frogs and/or smooth newts are found in the footprint of the proposed works, the works will stop, and it may be necessary for an NPWS derogation licence to enable the works to continue (if it involves disturbing or destroying the breeding place of an amphibian). This assessment assumes that if a licence is granted then appropriate mitigation and compensation will be provided for the species concerned.</p> | Construction and Restoration |

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|--|---------------------------|
| EB3 | <p>Initial Bat Survey</p> <p>A Preliminary Roost Feature (PRF) inspection survey will be undertaken to assess the rock wall's suitability for bats. Access equipment such as ropes, ladders, MEWPs, or scaffold towers may be required to enable a full visual inspection. PRFs will be categorised in line with Bat Conservation Trust guidance² as None (no roosting suitability), PRF-I (suitable for or previously used by individual bats) and PRF-Ms (suitable for or used by multiple bats). Features categorised as None or PRF-I require no further assessment. PRF-Ms, however, must be subject to three dusk/dawn surveys during the active bat season (May–September) to determine occupation.</p> | Construction |
| EB4 | <p>Initial Bat Mitigation</p> <p>If no PRFs are identified during the initial inspection, no further surveys are necessary, and works may proceed under ecological supervision.</p> <p>If PRF-I or PRF-M features are identified, their occupation status must be assessed during the active season. Due to exposure, the wall is not considered suitable for hibernation. If PRFs are found to be unoccupied at the time of survey, they should be sealed (under supervision of a licensed bat ecologist) to prevent subsequent use by bats.</p> <p>If any PRF is found to be occupied, disturbance or removal of a roost would constitute an offence under Section 23 (5)(d) of the Wildlife Acts. In such cases, a derogation licence must be obtained from the National Parks and Wildlife Service. A detailed Species Protection Plan would then be developed and implemented.</p> | Construction |

² Advice - Bat Conservation Trust

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|--|------------------------------|
| EB5 | <p>Bat Infilling Works Mitigation</p> <p>Infilling works near the rock wall must be conducted in a phased manner, under the supervision of the appointed bat ecologist. The ecologist will inspect the rock face incrementally to ensure any newly emerging PRFs are identified and assessed appropriately prior to disturbance.</p> | Construction |
| EB6 | <p>Badger</p> <p>Prior to the commencement of works, confirmatory badger surveys will be undertaken to determine if the potential setts identified are in use by badger, and if any additional badger setts are present within the Application Site.</p> <p>Unless authorised to do so, heavy machinery will not be permitted within 30 m of an active badger sett, although lighter machinery may be used within 20 m and light work such as vegetation clearance can generally be undertaken within 10 m of setts. Where avoidance measures and exclusion zones cannot be used, consultation with NPWS will be necessary to permit disturbance (noting that the NPWS does not presently issue derogation licences for badger sett disturbance or destruction but can give authorisation and should be consulted). This assessment assumes that if authorisation is granted then appropriate mitigation and compensation will be provided.</p> <p>During the breeding season (December to June inclusive), none of the above works shall be permitted within 50 m of any active setts.</p> | Construction and Restoration |
| EB7 | <p>Breeding Birds – Disturbance or Destruction of Active Nests</p> <p>The clearance of woody vegetation (hedgerows, treelines, scrub and woodland) and any sand martin nests will not occur during the breeding season. If this is unavoidable, a suitably experienced ecologist must survey all areas where works are proposed with</p> | Construction and Restoration |

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|---|------------------------------|
| | nesting habitat, and check for active nests before operations commence. If present, species-specific avoidance zones will be implemented and adhered to until any chicks have fledged, or the nest is deemed to be no longer in use. If this is not possible, clearance cannot proceed without a derogation licence. | |
| EB8 | <p>Breeding Birds – Habitat Loss</p> <p>The loss of scrub will be compensated by the planting of an equivalent area of woody habitat along the periphery of the Application Site, as outlined in the Restoration Plan.</p> <p>The Restoration Plan also proposes for the installation of four bird nesting boxes (2GR Schwegler nest box, or similar) in areas of woody habitat. The boxes will be placed at least 2 m above the ground, in locations sheltered from prevailing wind, rain, and strong sunlight, ensuring birds have unobstructed access.</p> | Restoration |
| EB9 | <p>Reptile Mortalities</p> <p>In advance of any winter works involving the potential loss of hibernacula for common lizard (areas with dead wood piles or loose rocks), a confirmatory survey will be carried out to determine the presence or absence of hibernating individuals. Surveys will involve the lifting of dead wood or stones, which may disturb the animals, and as such may require a derogation licence from the NPWS.</p> <p>If individuals are found and destruction of hibernacula is unavoidable, bespoke mitigation must be designed and agreed with the NPWS. This will likely involve the creation of alternative hibernacula in unaffected alternative habitat, and subsequently the careful translocation of individuals.</p> <p>If possible, works in such an area will be delayed until the spring, when common lizard has left the hibernaculum.</p> | Construction and Restoration |

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|---|------------------------------|
| EB10 | Reptile Habitat Loss The loss of areas of bare and loose rocks will be compensated by the provision of four reptile refugia, which will comprise some loose piles of boulders, which can be transported from their existing location onsite and reused. These will provide habitat for reptiles to use for basking and as hibernacula. | Restoration Phase |
| EB11 | Other (Small) Mammals - Disturbance or Destruction of Active Resting Places A suitably experienced ecologist will check for the presence of hedgehog, Irish hare and pygmy shrew before and during the clearance of scrub. In the unlikely event that any of these species are found, but that cannot move out of the way of works of their own accord, they will be carefully moved with a gloved hand to nearby and suitable vegetation outside of the working area. If specific resting places (e.g. burrows that may be in use by hedgehogs or pygmy shrews, or hare forms) are found, works will stop, and avoidance zones will be implemented and adhered to until the nest is deemed to be no longer in use. If this is not possible, clearance cannot proceed without a derogation licence from the NPWS. | Construction and Restoration |
| EB12 | Other (Small) Mammals – Habitat Loss The loss of scrub will be compensated by the planting of an equivalent area of woody habitat along the periphery of the Application Site, as outlined in the Restoration Plan. | Restoration |
| EB13 | Terrestrial Invertebrates – Habitat Loss The loss of scrub and calcareous grassland will be compensated by the creation of equivalent areas of habitat along the periphery of the Application Site, as outlined in the Restoration Plan. | Restoration |

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|--|------------------------------|
| | In addition, four invertebrate boxes will be installed around the periphery of the Application Site. | |
| EB14 | Spread of Invasive Species Whilst not identified as a significant impact to any Important Ecological Features, the failure to prevent the spread of invasive species is an offence under the Birds and Natural Habitats Regulations. To this end, an Invasive Species Management Plan (ISMP) has been prepared and is submitted with this Section 37L application. The ISMP proposes a suite of standard biosecurity measures, monitoring and broad actions in the event of accidental species introduction. | Construction and Restoration |

Table 16-4 - Specific Environmental Mitigation Requirements - Land, Soils and Geology

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|-----------------------|---|----------------------------------|
| LSG1 | Any sludge collected from wheel wash will be tested and either used as land restoration process (if the quality and end use is acceptable) or disposed of to an appropriate licensed waste disposal facility. | Construction |
| LSG2 | Vehicle movements outside the area where infilling will take place, will be restricted to dedicated routes or on areas of hardstanding. | Construction |
| LSG3 | Existing topsoil on site will be removed and temporarily stored in stockpiles, where practicable. The topsoil will be reused during the land reinstatement. | Construction and Restoration |
| LSG4 | Topsoil will be stockpiled to heights that result in no deformation to the structure of the soil. | Construction and Restoration |
| LSG5 | Stockpiles of material will be evaluated and monitored and kept stable for safety and to minimise erosion. | Construction and Restoration |
| LSG6 | Any topsoil imported will be inert and sourced from a suitability licenced third party supplier. | Construction and Restoration |
| LSG7 | There is no known land contamination at the site. If during works previously unidentified contamination is encountered, work will be undertaken to characterise this and determine if there is a risk to land quality or human health that requires action. | Construction and Restoration |

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|--|------------------------------|
| LSG8 | The land raise, and all facilities required to enable construction, will be developed using inert soil and stone (e.g. land raise) and concrete slab and/or aggregate/tarmacadam to install hardstanding (e.g. site entrance curtain, waste inspection bays and bunded waste quarantine area, paved internal accessed road). | Construction |
| LSG9 | Material acceptance for the imported clean soil and stone will be as set out in Chapter 2 (Project Description). No contaminated soils will be accepted at the facility. Authorised vehicles only will be received. The origin and weight of incoming material will be known. Representative samples will be taken from a certain proportion of loads to make sure they comply with acceptance criteria. | Construction |
| LSG10 | Biosecurity measures in relation to imported soil and stone will be carried out in line with the Invasive Species Management Plan (ISMP) provided in Appendix 2B to Chapter 2 of this EIAR. | Construction and Restoration |
| LSG11 | During emplacement of materials, the site operative will inspect what is being laid down. Suspect or non-compliant material will be transferred to the quarantine area for further inspect and classification. Materials that are not compliant with acceptance criteria requirements will be removed from the Site for disposal at an appropriate facility. | Construction |
| LSG12 | Temporary slopes in the infilled soils will be visually inspected, at least once a month, by site staff and records will be kept. Should these inspections give rise for concern, an inspection of the affected area(s) will be undertaken by a qualified geotechnical engineer and measures will be implemented to address any instability issues associated with infilling. | Construction |

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|--|------------------------------|
| LSG13 | Any refuelling of plant onsite will take place on the hardstanding area and drip traps will be used. Refuelling will be undertaken by a trained person. | Construction and Restoration |
| LSG14 | Spill kits will be maintained on Site to deal with any spills and leaks, and spill training will be provided to relevant staff members. | Construction and Restoration |
| LSG15 | Mobile plant parking will be available on the hardstanding for vehicle movement and storage. | Construction |
| LSG16 | Interceptors will be maintained, as required. | Construction and Restoration |
| LSG17 | Any waste removal will be managed and undertaken by a competent contractor appointed by the Site Operator according to industry standard practice and disposed of accordingly by a licensed waste disposal contractor. | Construction and Restoration |
| LSG18 | <p>An EMS (Environmental Management System) will be developed for the Site and will be in keeping with industry best practice and statutory guidelines. Plans within the EMS will set out how the construction of the Proposed Project will be managed. The plans will include widely used good practice measures to avoid or reduce the potential impact of construction works on workers, members of the public and the environment. These will include, but not be limited to, the following:</p> <ul style="list-style-type: none"> ■ All works will be conducted in accordance with the appropriate site rules; ■ Appropriate Personal Protection Equipment (PPE) will be used by all workers; ■ Any hazardous materials will be labelled clearly, transported with care by competent and trained persons, and stored in dedicated areas in appropriately banded containers; | Construction and Restoration |

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|--|---------------------------|
| | <ul style="list-style-type: none"> ■ Maintenance checks and procedures will be completed to reduce the potential for leaks and spills from plant and vehicles; ■ Pollution management measures will be implemented to prevent contamination by machinery pollutants, such as fuels, oils and lubricants during construction phase. These measures will be informed by guidance provided in relevant documents, such as the CIRIA guides to environmental good practice on site; ■ Other information on good practice to reduce the potential for environmental pollution that will be consulted includes the following documents developed by the Environment Agency (England and Wales), the Scottish Environment Protection Agency and the Northern Ireland Environment Agency: <ul style="list-style-type: none"> • GPP 1 Understanding your environmental responsibilities - good environmental practices; • GPP 2 Above ground oil storage tanks; • PPG 6 Working at construction and demolition sites; • GPP 8 Safe storage and disposal of used oils; • GPP 13 Vehicle washing and cleaning; • GPP 21 Pollution incident response planning; • GPP 22 Dealing with spills; and • GPP 26 Safe storage - drums and intermediate bulk containers. | |

Table 16-5 - Specific Environmental Mitigation Requirements - Water

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|-----------------------|---|---|
| W1 | Groundwater level monitoring at the onsite boreholes (BH1, BH2, BH3 and BH4) for at least one month prior to enabling works, using pressure transducers (data logger and barometric pressure logger). | Pre-enabling works (Construction Phase) |
| W2 | Groundwater quality monitoring at the onsite boreholes (BH1, BH2, BH3 and BH4) for at least one month prior to enabling works | Pre-enabling works (Construction Phase) |
| W3 | Discrete monthly manual groundwater level measurements at onsite boreholes. To assist in logger calibration and then check impact on water levels with construction. | Construction |
| W4 | Quarterly sampling of surface water within the collected waters within the quarry void is recommended for construction phase to capture seasonal fluctuations in chemical concentration. Check for any changes which may be linked to the project construction. | Construction |
| W5 | Quarterly sampling of groundwater is recommended for construction phase to capture seasonal fluctuations in chemical concentration. Check for any changes which may be linked to the project construction. | Construction |
| W6 | The water monitoring programme will be agreed with the Environmental Health Officer (EHO). | Construction and Restoration |

Table 16-6 - Specific Environmental Mitigation Requirements - Air Quality

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|---|---------------------------|
| AQ1 | A water bowser will be used for dust suppression as required | Construction |
| AQ2 | On site speed restrictions (<10km/h) will be maintained to limit the generation of fugitive dust emissions | Construction |
| AQ3 | All HGVs exiting the Proposed Project will pass through a wheel-wash to minimise track out | Construction |
| AQ4 | Stockpiles will be located away from the active infilling area and positioned to avoid any temporary adverse visual impact or dust nuisance | Construction |
| AQ5 | Soil and stone will be brought to the site in covered trucks to avoid the generation of windblown dust on the approach roads and within the site | Construction |
| AQ6 | <ul style="list-style-type: none"> ■ A Dust Management Plan (DMP) to be agreed with the EHO and adhered to. A DMP provides a strategy to minimise the generation of dust and to control its release during the construction phase. At a minimum it should include the following <ul style="list-style-type: none"> • A description of the site and the surrounding area; • An assessment of the risks associated with dust due to construction activities; • Site-specific mitigation measures and a procedure for their implementation; • The roles and responsibilities of construction personnel; • Construction site and equipment layout; • Training requirements for site personnel; • A community engagement plan and complaints procedure, including standard reporting templates; | Construction |

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|--|---------------------------|
| | <ul style="list-style-type: none"> • A dust monitoring plan; and • Operational requirements for on-road vehicles and NRMM. ▪ Effective site management practices are critical to demonstrate the willingness of the operator to control dust emissions and provides a mechanism for auditing of site operations. Such management procedures should be outlined within the DMP; and ▪ Record all dust and air quality complaints, identify causes, take appropriate measures to reduce emissions in a timely manner, and record the measures taken. | |
| AQ7 | Provide training to the site personnel on dust mitigation. Training should also cover 'emergency preparedness plans' to react quickly in case of any failure of the planned dust mitigation. | Construction |
| AQ8 | Maintain good communication to help alleviate anxieties between the operators and the surrounding communities. It is recommended that the operator set up regular, accessible liaison arrangements and providing information as freely as possible. | Construction |
| AQ9 | Some activities should ideally be planned only during favourable weather conditions. Where possible, particularly dusty activities should be avoided during extended periods of dry and windy conditions. | Construction |
| AQ10 | <p>Practice good on-site traffic management. Site traffic is often the greatest source of dust on sites. Standard good practices for site haulage include:</p> <ul style="list-style-type: none"> ▪ Avoiding abrupt changes in direction; ▪ Regular clearing, grading and maintenance of haul routes; and ▪ Evenly loading vehicles to avoid spillages | Construction |

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|--|---------------------------|
| AQ11 | <p>Implement the following good practices for on-site material handling:</p> <ul style="list-style-type: none"> Minimize drop heights when unloading material to reduce dust generation; Water sprinklers should be installed at key dust-generating areas; Regularly clear spillages to prevent the accumulation of loose dry material; Store fine materials under cover where possible or use wind barriers; and Spray exposed surfaces of stockpiles regularly to maintain surface moisture. | Construction |
| AQ12 | Daily visual inspections are to be carried out by the Principal Contractor to inspect the effectiveness of dust mitigation activities and to identify any visual dust on exposed surfaces. | Construction |
| AQ13 | Dust Monitoring to be continued at the existing monitoring locations in addition to two new locations. Monitoring data are to be collated on a monthly basis and a short summary report is to be produced. The monthly reports are to include the dust monitoring results and any exceedances of levels, and any remedial action. | Construction |

Table 16-7 - Specific Environmental Mitigation Requirements - Climate

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|---|---------------------------|
| | No mitigation measures or monitoring is proposed. | |

Table 16-8 - Specific Environmental Mitigation Requirements - Noise

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|---|---------------------------|
| | No mitigation measures or monitoring is proposed. | |

Table 16-9 - Specific Environmental Mitigation Requirements - Cultural Heritage

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|---|---------------------------|
| | No mitigation measures or monitoring is proposed. | |

Table 16-10 - Specific Environmental Mitigation Requirements - Landscape and Visual Impact

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|---|---------------------------|
| | No mitigation measures or monitoring is proposed. | |

Table 16-11 - Specific Environmental Mitigation Requirements - Traffic

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|----------------|--|---------------------------|
| TR1 | <p>The Applicant shall submit a Construction and Traffic Management Plan/Plans for the overall Proposed Project that is to contain the following:</p> <ul style="list-style-type: none"> ▪ The duration of the overall construction phase and the individual construction phases; ▪ Details of all construction vehicles; ▪ Access and egress arrangements to and from Site via the public road network; ▪ A conditional and photographic survey of the public road network providing access the Sites; ▪ This plan is also to contain mitigation measures to minimise the effects the Proposed Project could have on the immediate public road network and existing traffic movements; ▪ The manner in which HGV vehicles and their frequency will be managed on the local road network in preventing obstructions such as queuing and reversing in order to leave to site having consideration to the narrowness of the local road network; ▪ Wheelwash arrangements and locations for the Site; ▪ The manner in which the existing public road network shall be kept clean; and ▪ Relevant site warning signs shall be in accordance with the Department of Transport, Tourism and Sport (DTTAS) Traffic Signs Manual. | Construction |

Table 16-12 - Specific Environmental Mitigation Requirements - Material Assets

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|-----------------------|---|----------------------------------|
| MA1 | Any works required to material assets on or around the Site will be carried out in conjunction with the relevant provider to ensure minimal disruption to the existing users. | Construction |
| MA2 | If it is determined in conjunction with the utility provider that utility disruption is required, then prior notification of disruptions shall be given to all impacted properties. This shall include information on when disruptions are scheduled to occur and the duration of the disruption. | Construction |
| MA3 | All underground services will be identified, and protection will be put in place. | Construction |
| MA4 | The Applicant will consult with ESB prior to construction to determine the preferred approaches to works around poleset 74 (high voltage) and pole 10 (medium voltage). All works near ESB infrastructure will be carried out in accordance with ESB guidelines (e.g. ESB Networks Code of Practice for Avoiding Danger from Overhead Electricity Lines, 2019), including works near poles at the proposed site entrance. | Construction |

Table 16-13 - Specific Environmental Mitigation Requirements - Major Accidents and Disasters

| Mitigation No. | Description of Mitigation Measure / Environmental Commitments | Stage of Proposed Project |
|-----------------------|--|----------------------------------|
| MAD1 | Implementation and maintenance of safe working practices and risk assessment across the Site and operational activities. | Construction and Restoration |

Table 16-14 - Environmental Monitoring Schedule

| BQL Environmental Monitoring | Q1 | | | Q2 | | | Q3 | | | Q4 | | |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
| Groundwater (Levels) | X | X | X | X | X | X | X | X | X | X | X | X |
| Ground Water (Quality) | X | | | X | | | X | | | X | | |
| Surface Water Quality | X | | | X | | | X | | | X | | |
| Dust Monitoring | X | X | X | X | X | X | X | X | X | X | X | X |