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Preliminary Construction Management Plan

N59 Oughterard Bridge Safety Improvement Scheme

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Introduction

The scheme was identified as an RSI scheme per Hazard ID's – N59GY_274.3_8_1 and N59GY_274.3_8_1, and received Gateway Approval 1, Ref. GCC_04_20, in accordance with TII Publication GE-STY-01037 in October 2020. The preferred option in the Feasibility and Options Report (Ref. GCC_04_20-1) has been designed in accordance with the relevant standards. This report has been prepared in accordance with the guidance provided in TII Publication DN-GEO-03030 and approval is sought to proceed to Phase 4, Statutory Procedures.

The project consists of the development of a protected/segregated pedestrian zone across the bridge, with traffic signals at either side to control traffic movements and facilitate controlled crossing points of the Church access and the N59 (northwest).

The purpose of the project is to provide a safe and accessible way of crossing the N59.

1.1 Statement of Authority

A traffic Report has been prepared by Stephen Reid Consulting Traffic and Transportation on behalf of Galway County Council (GCC) to set out the work undertaken to develop a design proposal for improving the safety of the N59 Oughterard Bridge for all road users and with particular regard for Vulnerable Road Users (VRUs). The bridge is located on the N59 Clifden Road at the western end of Oughterard in County Galway. The layout of Oughterard has resulted in a situation where most of the town's residential areas and town centre amenities are located on the south side of the Owenriff River, while the primary and post-primary schools are located on the north side of the river.

There are two bridges crossing the river in the town:

- The easternmost bridge is on the Glann Road, to the north of the town centre (approximately 400m north of the town centre via Camp Road). This bridge is wide enough for two-way traffic and has a footpath on both sides. There are access steps down onto a river walkway trail along the north bank to the west of the Glann Road. However, there is no direct connection from this point to the schools to the west of this bridge, which are separated by a field (the distance from the field gate on the northwest side of the river to the western boundary of the National School is 175m).
- The westernmost bridge is on the N59 Clifden Road, and this is a skewed bridge with a tight turnon each end, and a level drop of approximately 2 metres between the south and the north ends. The cross-section between the stone parapets is 5.54 - 5.58 metres wide, with no footpath provision, and while the section spanning the river is approximately 20 metres, the overall length for a pedestrian to walk between the south footpath at the Church access and the north footpath on the Clifden Road is 45 metres (including crossing the N59 west at the corner and the Church car park access. Pedestrians are fully exposed to traffic while making this crossing, and it is noted that this is most acute at times of the day when primary school children (and their parents) and secondary school students are walking to and from the schools to the north east of the bridge via the L1310 Carrowmanagh road (which is compounded by higher volumes of traffic to and from the schools, including several coaches/school buses. In the case of the secondary school students, it is noted that in addition to the morning and afternoon 'school run' periods, some students also walk to/from the town centre to access convenience stores/cafes during their lunchbreak. Therefore, the current situation with only one bridge route providing access to the schools (via the N59) requires VRUs to mix with road traffic (both local traffic and National Route through traffic) in an uncontrolled manner and without adequate protection. On the L1310, there is only a short section of footpath on the north side of the bridge, and no footpath from this point to the left turn towards the schools (a further 75 metres walking distance with no footpath). The result of lack of a safe crossing route without dedicated paths increases

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the number of school children who are brought to/from the schools by car/coach (increasing the potential for traffic conflict and conflict with those VRUs who are walking or cycling across the bridge) and increasing congestion at the two ends of the bridge as it is difficult for two vehicles to pass in opposite directions.

1.2 Proposed Works

The proposed scheme comprises a traffic signal system in the vicinity of the bridge, the provision of a dedicated crossing route and associated civil engineering works, namely traffic signal poles for mounting of signal heads kerning and footpath buildouts.

See **Error! Reference source not found. & 1.2** for location and Layout of the of the proposed works.



Figure 1.1. Aerial image of Oughterard Bridge

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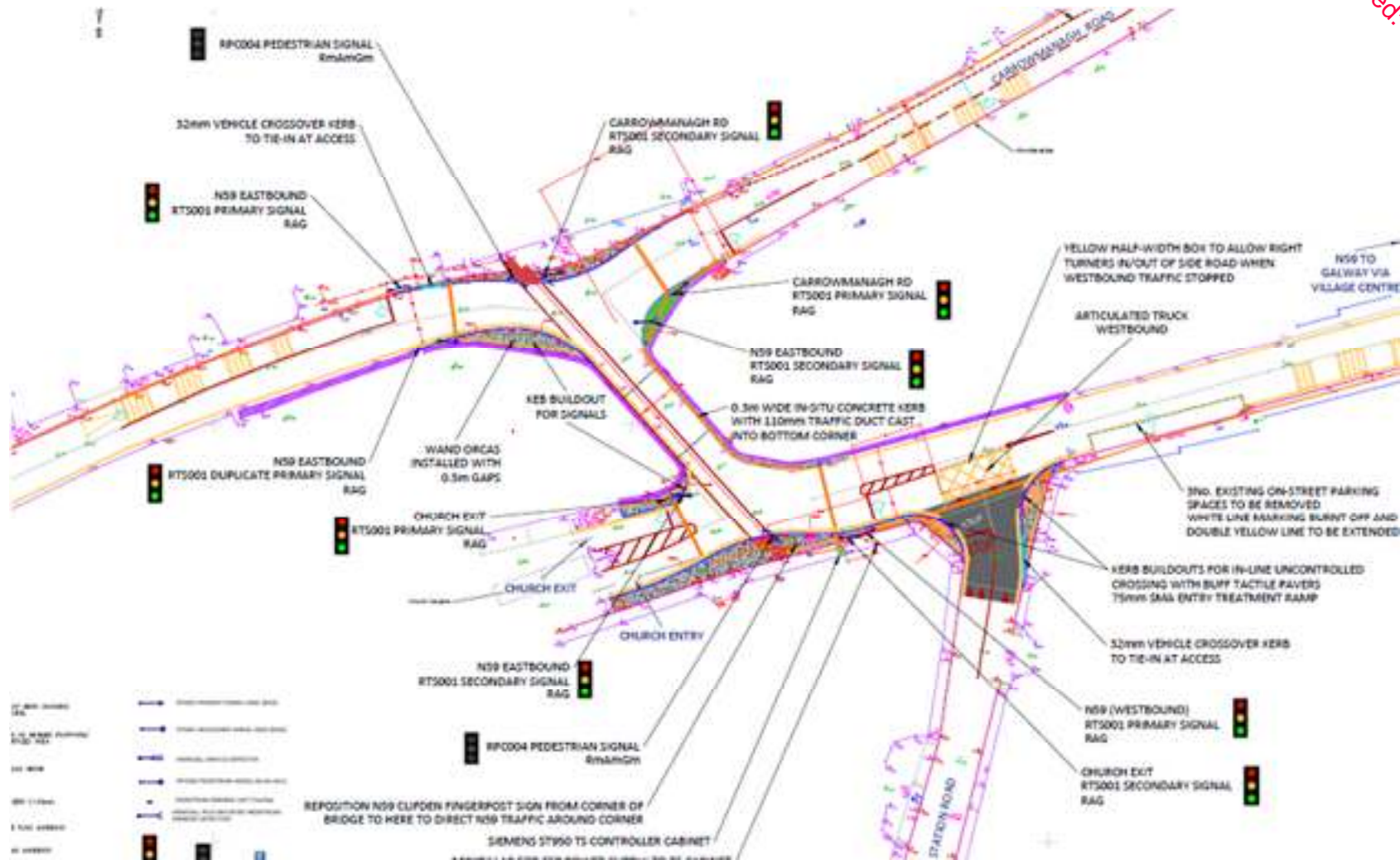


Figure 1.2. layout of proposed work

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Environmental Constraints

1.3 Designated Sites

A report has been prepared by AQUAFAC International Services Ltd. (AQUAFAC) to provide the relevant information to the competent authorities to inform the Screening for Appropriate Assessment (AA) for the proposed installation of traffic signals at Oughterard Bridge, Co. Galway (the 'Project').

Following a comprehensive evaluation of the potential direct, indirect and cumulative impacts on the SCIs considering their Conservation Objectives, it has been concluded that the proposed development will not have a significant effect on any European site. It has been objectively concluded by AQUAFAC, following an examination, analysis and evaluation of the relevant information, including the nature of the proposed Project, that the proposed Project does not pose a risk of significantly affecting (either directly or indirectly) any European site, either alone or in combination with other plans or projects, and there is no reasonable scientific doubt in relation to this conclusion.

1.4 Surface Water

The alignment footprint within the existing paved area of the N59 and the L1310

The works take place within immediate proximity to the shores of Owenriff River.

1.5 Invasive Species

The presence of any invasive alien plant species has not been recorded within the proposed works footprint.

Environmental Management Measures

1.6 General Measures

1.6.1 Toolbox Talks

A 'Toolbox Talk' on the various constraints and significance of working within the existing environment will be provided during the Environmental Inductions by site engineer for (GCC) to construction personnel working on the project.

Project personnel will receive suitable training to ensure they are aware of their responsibilities and are competent to carry out their work in a safe and environmentally acceptable manner. This training will include:

- Promoting awareness of site-specific environmental topics;
- Reporting responsibilities for environmental incidents;
- Contingency and emergency planning;
- Environmental responsibilities and reporting procedures;
- Environmental policies; and
- Information within the CEMP and associated method statements including significant project aspects, impacts and controls.

1.6.2 Site Boundaries

Given the proximity of designated sites in relation to the proposed works, the footprint of works will be clearly delineated on the ground and outlined during the Toolbox talk. The proposed works footprint is with the existing paved surfaces. No works will be completed outside of the agreed site bounds and no element of works, temporary or otherwise will be undertaken within the identified European sites (Lough Corrib SAC 000297) near the footprint of the proposed works.

Site Compound

A construction compound will be utilised throughout the duration of the proposed works. It is intended that this compound is located off site. This compound will be situated away from any watercourses, on gently sloping terrain and sufficiently set back from European site boundaries to ensure no indirect impacts occur. The construction compound will be located at least 50m distance from any watercourses and outside of their potential flood zones.

Further details on compound controls are to be agreed when a contractor is appointed for the works.

Compound Controls

The compound shall have appropriate levels of security to deter vandalism, theft and unauthorised access. The compound shall be fenced off and a silt fence erected and maintained around its boundary.

Surface runoff from the compound shall be minimised by ensuring that the impervious area is minimised. All surface water runoff shall be intercepted and directed to appropriate treatment systems (settlement facilities and oil trap) for the removal of pollutants prior to discharge.

Wastewater drainage from all site compound and construction facilities shall be contained and disposed of in an appropriate manner to prevent water pollution and in accordance with the relevant statutory requirements.

The compound may include stores, offices, materials storage areas, materials processing areas, plant storage, parking of site and staff vehicles, and other ancillary facilities and activities.

The storage of fuels, other hydrocarbons and other chemicals within the construction compounds shall be in accordance relevant legislation and with best practice. In particular:

All fuel/ hydrocarbon/ chemical (fluid) storage areas shall be bunded to 110% of storage capacity;

Storage of these materials shall not be within 50m of a sensitive watercourse and the storage location within the compound shall be organised so as to be as far away from all water bodies as is practicable; and

The Emergency Response Plan shall include arrangements for dealing with accidental spillage and relevant staff shall be trained in these procedures.

1.6.3 Roles and Responsibilities

The intended contractors Site Engineer/Manager to be appointed by Galway County Council (GCC) will report directly to GCC. The duties of the Site Engineer/Manager are as follows:

- To provide monitoring of the implementation of the control measures contained in the detailed method statement to be agreed prior to any construction works and to include all proposed mitigation measures outlined in the approval of the Part VIII planning application and any relevant conditions attached to the same.
- Reporting to the GCC Project Manager on a weekly basis for the duration of the scheme works;
- If there are any areas where significant removal of vegetation is proposed it shall first be inspected by GCC or their representatives and appropriate steps shall be taken should any protected species be found within the footprint of the works.

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- The Site Engineer/Manager shall maintain a record of any suspected additional ecologically sensitive flora or fauna encountered throughout the works who will notify the appropriate statutory bodies i.e. Galway County Council Environmental Protection Agency (EPA), National Parks and Wildlife Service (NPWS) and Inland Fisheries Agency (IFI) as required.

The following sets out in summary the general measures that will be adhered to and how they will be implemented on site:

- Machinery used will not be refuelled within 50m of waterbodies and no fuels, oils etc. will be stored on-site;
- No trees or dense vegetation will be removed during the bird nesting season between 1st March and 31st August as per the Wildlife Act 1976 (as amended);
- Raw or uncured waste concrete/asphalt shall be disposed of by removal from the site;
- Fuels, lubricants and hydraulic fluids for equipment used on the site, as well as any solvents, oils, and paints shall be carefully handled to avoid spillage, properly secured against unauthorised access or vandalism, and provided with spill containment according to codes of practice;
- Any spillage of fuels, lubricants of hydraulic oils shall be immediately contained and the contaminated soil removed from the site and properly disposed of;
- Waste oils and hydraulic fluids shall be collected in leak-proof containers and removed from the site for disposal or re-cycling;
- Mixing of concrete/asphalt shall be carried out away from watercourses;
- Run off from machine service and concrete/asphalt mixing areas will not be released to the surrounding environment or allowed migrate to waterbodies or watercourses; and
- All plant and equipment employed on the construction site (e.g. excavator, footwear, etc.) must be thoroughly cleaned down using a power washer unit prior to arrival on site to prevent the spread of invasive plant species such as Japanese knotweed, Rhododendron and Himalayan Balsam.

1.7 Additional Measures Specifically to Protect Water Quality

Due to the proximity of the works and to the Lough Corrib SAC site, some measures may be required/ proposed to ensure the protection of water quality in the area. The principal avoidance and control measures to be adopted and these can include the following:

General

- GCC shall if deemed necessary employ a suitably qualified Ecologist who will provide site inductions for all personnel involved with the project prior to any works commencing or relating to operations within and adjacent to watercourses and the environmentally sensitive nature of the proximity of the European sites and re-emphasise the precautions that are required.
- NPWS and IFI will be informed at least 2 weeks prior to commencement should any watercourses be interacted with.
- The Local Authority will ensure that the Ecologist is delegated sufficient powers under the construction contract so that he/ she will be able to instruct the Contractor to stop works and to direct the carrying out of emergency mitigation/ clean-up operations. The Ecologist can also be the Council's Liaison for the purposes of consulting environmental bodies including the National Parks and Wildlife Service and Inland Fisheries Ireland;
- GCC will ensure that the engineer/foreman setting out the works is fully aware of the ecological constraints and mitigation requirements;

- Any incident or observation of anything that may be considered as causing or likely to cause disturbance or damage to the European sites will be reported to the GCC immediately;
- The contractor will take immediate action to prevent or limit the impact and will notify the GCC contact of the incident and the actions taken; and

Protection of Watercourses

The works areas are located adjacent to the Owenriff River, should it be deemed necessary, the works area may be to be fenced with silt fences comprised of Terram or equivalent geo-textile fencing, secured to the ground to prevent the wash-out of suspended solids from the site to the watercourse.

Any silt fencing will be erected where in accordance with the manufacturer's recommendations and in compliance with the Design Criteria outlined in CIRIA C648 Control of Water Pollution from Linear Construction Projects;

- All silt fences will be inspected on a daily basis by the contractor and repairs or replacements carried out as required. A record of such inspections/ repairs/ replacements will be maintained as part of the Environmental Operating Plan;
- The contractor shall prevent any silting of water bodies and pollution of the water that may adversely affect the quality or appearance of the water;
- Establish site boundary markings to safeguard features of interest/value;
- Tools and equipment are not to be cleaned in or near waterbodies;
- Chemicals used shall be stored in sealed containers in the site lockup prior to use;
- The chemicals shall be applied in such a way as to avoid any spillage or leakage. Any and all excavated material is **NOT** to be temporarily stored adjacent to any waterbodies;

Fuel/Lubricant Spillage from Equipment

- Fuelling and lubrication will not be conducted within 50m of any waterbody;
- Storage areas, machinery depots and site offices will be located at least 50m from any waterbody;
- Spill kits will be made available close to streams and all staff will be properly trained on correct use;
- All fuels, lubricants and hydraulic fluids will be kept in secure bunded areas at a minimum of 50m from all waterbodies. The bunded area will accommodate 110% of the total capacity of the containers within it. Containers will be properly secured to prevent unauthorised access and misuse. An effective spillage procedure will be put in place with all staff properly briefed. Any waste oils or hydraulic fluids will be collected, stored in appropriate containers and disposed of offsite in an appropriate manner;
- All plant shall be well maintained with any fuel or oil drips attended to on an ongoing basis; and
- Any minor spillage during this process will be cleaned up immediately. Should any incident occur, the situation will be dealt with and coordinated by the contractor's supervisor who will report to GCC.

Contaminated Surface and/or Groundwater

- Excess surface water runoff will be treated prior to entering any drains or watercourses adjacent to Greenway works.

Concrete/Asphalt

The use and management of concrete in or close to waterbodies must be carefully controlled to avoid spillage which has a deleterious effect on water chemistry and aquatic habitats and species. Alternate construction methods maybe proposed where possible, e.g. use of pre-cast units, use of permanent shuttering to be left in situ to place concrete in the dry, and permanent formwork will reduce the risks associated with concreting works. Where the use of concrete near waterbodies cannot be avoided the following control measures will be employed. The following measures must be adhered to:

- Raw or uncured waste concrete/asphalt will be disposed of, off site at a licenced waste facility;
- Best practice in bulk-liquid concrete management addressing pouring and handling, secure shuttering / form-work, adequate curing times must be adhered to;
- Where shuttering is used, measures shall be put in place to prevent against shutter failure and control storage, handling and disposal of shutter oils;
- Wash water from cleaning ready mix concrete lorries and mixers may be contaminated with cement and is therefore highly alkaline. Lorries and mixers and all concrete delivery equipment (wheelbarrows, buckets etc.) must be washed out off site;
- Hydrophilic grout and quick-setting mixes or rapid hardener additives shall be used to promote the early set of concrete surfaces exposed to water;
- When working in or near the surface water and the application in-situ materials cannot be avoided, the use of alternative materials such as biodegradable shutter oils shall be used;
- Any plant operating close to the water will require special consideration on the transport of concrete from the point of discharge from the mixer to final discharge into the delivery pipe (tremie). Care will be exercised when slewing concrete skips or mobile concrete pumps near surface waters;
- Placing of concrete near waterbodies will be carried out only under the supervision of the Site Engineer/Manager
- There will be no hosing into surface water drains of spills of concrete, cement, grout or similar materials. Such spills shall be contained immediately, and runoff prevented from entering any waterbody;
- Concrete waste and wash-down water will be contained and managed on site to prevent pollution of all surface waterbodies;
- On- site concrete batching and mixing activities will not be allowed and will be specifically prohibited in the contract documents;
- Washout from concrete lorries, with the exception of the chute, will not be permitted on site and will only take place at the batching plant (or other appropriate facility designated by the manufacturer);
- Chute washout will be carried out at designated locations only. These locations will be signposted. The Concrete Plant and all Delivery Drivers will be informed of their location with the order information and on arrival on site;
- Chute washout locations will be provided with appropriate designated, contained impermeable area and treatment facilities including adequately sized settlement tanks;

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- The clear water from the settlement tanks shall be pH corrected prior to discharge (which shall be by means of one of the construction stage settlement facilities) or alternatively, disposed of as waste to a licensed facility;
- Wet concrete and cement are very alkaline and corrosive and can cause serious pollution to watercourses;
- Disposal of raw or uncured waste concrete will be controlled to ensure that the waterbodies will not be impacted;
- Best practice in bulk-liquid concrete management addressing pouring and handling, secure shuttering / form-work, adequate curing times;
- Where shuttering is used, measures should be put in place to prevent against shutter failure and control storage, handling and disposal of shutter oils;
- Wash water from cleaning ready mix concrete lorries and mixers may be contaminated with cement and is therefore highly alkaline. Due to the proximity of Owenriff River, it is recommended that lorries and mixers are washed out off-site; and
- Cement dust must be controlled as it is alkaline and harmful to the surrounding ecology. Activities which result in the creation of cement dust will be controlled by dampening down areas.

Stockpiles

- It is envisaged that very little material will be stockpiled during the course of the construction. The following measures are proposed;
- Stockpiles will not be located within 5m of a waterbody and shall be surrounded with continuous silt fence;
- Runoff from a stockpile will be collected via a shallow toe drain, located outside the silt fence, which will have check dams at regular intervals and will be designed to have a retention time of at least 5 hours. Prior to outfall straw wrapped in geotextile bags and inset into the base of the drain by at least 100mm shall be provided followed by a silt fence upstream of the outlet; and
- Stockpiles shall be limited in height to not more than 2.5m.

Hydrocarbons

- Storage of hydrocarbons or any polluting chemicals should be within the designated site compound in appropriately sized and bunded areas. This is to avoid risk of inputs to any watercourse/waterbody or any active/inactive drains connected to the proposed works. There must be no refuelling of vehicles/equipment within 50m of a river/lake;
- Any diesel or fuel oils stored on site must be bunded to 110% of the capacity of the storage tank. Design and installation of fuel tanks must be in accordance with best practice guidelines BPGCS005, oil storage guidelines. Drip trays and spill kits must be kept available on site;
- All stationary plant should be placed on drip trays to prevent leaking oils being released to the surrounding environment;
- No washings or waste materials of any kind can be directed into the surrounding environment; and
- Machinery on site must have pollution control kits on hand in the event of an emergency.

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1.8 Measures for Invasive Species

There are numerous invasive species in Ireland that include a range of flora and fauna. Each of these invasive species can cause damage and impact upon the functionality of native ecosystems and their associated services. The legislative impediment in relation to the spread and dispersal of alien invasive plant species is addressed in Regulation 49 paragraph 2 of the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, as follows:

(2) Save in accordance with a licence granted under paragraph (7), any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow in any place specified in relation to such plant in the third column of Part 1 of the Third Schedule, any plant which is included in Part 1 of the Third Schedule, shall be guilty of an offence. The Third Schedule is a definitive list of plant and animal species that are restricted under the European Communities Regulations, 2011. Regulation 49 prohibits the introduction and dispersal of plant species, while Regulation 50 prohibits dealing in and keeping species listed on the Third Schedule of the European Communities Regulations.

The non-native species of particular concern to the project which listed under the Third Schedule Part I (Plants) and Part II (Animals) of the 2011 Regulations are identified in Table 1-1.

Table 1-1: Third Schedule Species of Project related Concern

Common Name	Scientific Name	Third Schedule
Japanese Knotweed	<i>Fallopia japonica</i>	Third Schedule Part 1 (Plants)
Giant Knotweed	<i>Fallopia sachalinensis</i>	
Giant Hogweed	<i>Heracleum mantegazzianum</i>	
Gunnera species	<i>G. tinctoria</i> and <i>G. manicata</i>	
Himalayan Balsam	<i>Impatiens glandulifera</i>	
Himalayan Knotweed	<i>Persicaria wallichii</i>	
Rhododendron	<i>Rhododendron ponticum</i>	
Curly waterweed	<i>Lagarosiphon major</i>	
Zebra mussel	<i>Dreissena polymorpha</i>	Third Schedule Part II (Animals)

The presence of any invasive alien plant species (IAPS), has not been recorded within the proposed works footprint.

The general measures proposed below will ensure potential spread from the wider environs is minimised, as follows:

- The Contractor must ensure that the source locations for materials (aggregates, infill materials etc.) which are introduced to the site during the construction phase of the project should be free from non-native invasive species; and
- All plant and equipment employed on the construction site (e.g. excavator, footwear, etc.) must be thoroughly cleaned down using a power washer unit prior to arrival on site to prevent the spread of invasive plant species such as Japanese knotweed, Gunnera, Rhododendron and Himalayan Balsam.

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2 Emergency Response Procedures

The Environmental Emergency Response Procedure is used to address incidents that may occur during on-site routine operations. The following is a list of incidents which triggers initiation of the Environmental Emergency Response Procedure:

- Fire,
- Oil and chemical spillage,
- Plant accidents,
- Unauthorised waste disposal, and
- Damage to flora and fauna.

The environmental incidents can be classified into categories according to their severity; Minor, Serious and Major as outlined below. Emergency contact details are provided in **Table 2-1**.

- **Minor**
 - An incident/potential incident with a localised effect zone and is confined to the immediate area of the site where the incident occurs.
- **Serious**
 - An accident/potential incident which injures/impacts a number of personnel.
 - An incident with a large effect zone but is confirmed within the site boundaries.
 - Partial Evacuation of the site may be required
 - External Services may be required
- **Major**
 - Fatality and/or Serious Injury
 - Major Property/Asset Damage
 - Major Environmental Incident or Spill
 - Emergency likely to spread to areas external to the site.
 - Full Evacuation of the Site Required

Table 2-1: Emergency Contact Details

Service	Contact Details	Address
OPW	(093) 35 456	Main Street, Headford, Co. Galway
National Parks & Wildlife Service (NPWS)	095 41054/ 076 100 2530	Letterfrack, Co. Galway
Environmental Protection Agency (EPA)	+353 94 9048400	John Moore Road, Castlebar, Co. Mayo
National Parks & Wildlife Service (NPWS)	1890 383 000	7 Ely Place, Dublin 2
Inland Fisheries Ireland (IFI)	+353 91 563118	Inland Fisheries Ireland, Teach Breac, Earl's Island, Galway.
Coillte	+353 91 787520	Coillte Oranmore, Orantown Centre, Oranmore, Co. Galway.

3 Environmental Emergencies

An emergency preparedness and response procedure is required to prevent environmental pollution incidents. The emergency response procedure (ERP) for the site will be held on site in the site office. All personnel will be given the mandatory site induction and will be made aware of the emergency response procedure. An emergency on the site can be:

- Discovery of a fire within the site boundary.
- Explosions.
- Flooding.
- Uncontained spillage / leakage.
- Accident.

In the event of an emergency all employees will react promptly and calmly, following the guidelines outlined in the ERP.

3.1 Oil and Chemical Spillages

Suitable spill kits and absorbent material for dealing with oil spills will be maintained on site. In the event of pollution or potential risk of pollution the Local Authority will be informed immediately. In the case of water pollution in addition to the Local Authority, the Inland Fisheries and the EPA should also be informed through the project manager immediately.

- The type, size and location of the spill should be identified and if possible stop the source of the spill and control the area of the spill.
- If the oil spill is small in nature it can be treated with an appropriate spill kit to reduce the effect of the spillage i.e. a suitable absorbent material will be used to absorb/remove the spill.
- In the event of a significant oil spill occurring, an appropriate licenced contractor will be employed to determine the extent of the area affected and to implement an appropriate clean-up operation to in line with suitable standards.
- Material will be removed and disposed of in accordance with the Waste Management Plan.
- In the event of a chemical spill, stop the source of the spill and control the area.
- If the spill is hazardous or toxic in nature warn all in the vicinity, use an appropriate clean up kit or if a large spill employ a licence contractor to carry out remediation works.
- The SE will be informed in the event of a spillage occurring. A programme of mitigation will be put into place to address the spill.
- The SE will inform GCC so the relevant bodies can be notified.
- All fuels, oils and chemicals will be stored in a designated bunded storage area and stored in a manner that will ensure no environmental impacts occurring.
- Bunds or bunded containers should have a bunded capacity of 110% of the largest tank or 25% of the total volume of material stored.

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3.2 Fire Emergency

Fires on other areas of the site, including buildings or machinery, will be dealt with according to the relative scale of the fire. On-site personnel will use on-site fire suppressants to tackle minor fires.

- If the fire is small in nature, it should be extinguished by using an appropriate fire extinguisher for the fire type.
- Using available mobile plant, the fire will be smothered with inert material working from the outside edge of the fire towards the centre.
- Access to the immediate area will be restricted.
- Under no circumstance should a machine be driven into the centre of the fire as this will endanger both the driver and machine.
- A careful watch will be kept to ensure that all burning material has been fully and permanently extinguished.
- Major fires will be dealt with by the emergency services which can be contacted by dialling 999.
- Personnel will not attempt to tackle major fires in site buildings or equipment.
- In the event of a major fire taking place within an on-site office, activate the fire alarm and assemble at the designated fire assembly point.
- The fire warden will conduct a roll call to establish all members of staff present.
- An appropriate licenced contractor will be hired to determine the area affected by the fire and to clean up the area affected to the appropriate standard.
- All waste as a result of the fire will be disposed of at an appropriately licensed waste facility.

3.3 Plant Management

- All plant will be checked and monitoring to prevent leaking of hydrocarbons/chemicals.
- Stationary plant machinery will have drip trays located beneath if located within an environmentally sensitive area.
- When refuelling care will be taken to prevent spills by using appropriate equipment.
- Where feasible refuelling will take place at least 50-100m away from watercourses and within designated zones, such as the site compound.

3.4 Unauthorised Waste Disposal

- The Contractor will minimise waste disposal so far as is reasonably practicable.
- All waste generated on site will be transported by a permitted waste carrier and suitably disposed of at a licensed waste facility.
- Waste from the proposed works will be transported by authorised waste collectors in accordance with the Waste Management (Collection Permit) Regulations, 2007 as amended.
- Waste from the Proposed Project will be delivered to authorised waste facilities in accordance with the Waste Management Acts 1996 as amended.
- No waste will be buried, burnt, dumped on-site or in land adjacent to the site as this will be considered as unauthorised waste management. In the event of unauthorised waste management, the cause and impact will be assessed.

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3.5 Damage to Flora and Fauna

- In the event of damage occurring to protected flora/fauna or designated area, the cause of the incident will be identified.
- If on-site vehicles or personnel were the cause of the incident, all works will cease until the Health and Safety Officer will declare the site a safe working area.
- When the site is declared secure, an assessment of the incident will be carried out.
- In the event of the death of any faunal species, species details, photographs and any other available information will be recorded.
- The Site Engineer/Manager and a GCC representative will be informed of the incident.
- The NPWS will be notified of the incident by the Site Ecologist if deemed necessary.
- Mitigation measures will be put in place to manage the incident.

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4 Environmental Incident Reporting

All environmental incidents must be reported to the Site Engineer/manager and GCC. The Site Engineer/manager will then log the incident on the incident register and make a written record of the incident by using the incident record form (**Appendix A**). When necessary the appropriate contacts/agencies will be contacted as listed in **Table 2-1**.

In the event of any incident the Site Engineer/Manager will carry out the following:

- Identify the time, date and place of the incident,
- Carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising from therefrom,
- Isolate the source of the emission,
- Evaluate the environmental pollution, if any caused by the incident, and
- Identify and execute measures to minimise the emissions/malfunction and the effects thereof.

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Appendix A – Incident Reporting Form

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