Larne SPS Facilities: Headwall Installation

Habitats Regulations Assessment

March 2025

Ref: JN 355.21 2025

[redacted]

Contents

1.0 INTRODUCTION

The Department for Environment, Food & Rural Affairs (DEFRA) has a requirement to extend existing facilities at Larne Port to cater for the enhanced number of Sanitary and Phytosanitary (SPS) checks required for imports into Northern Ireland. As an element of the overall works, a Headwall will be constructed to discharge treated effluent to Larne Lough Irish Grid Reference (IGR) D 41140 01876 (Figure 1). The Headwall will be constructed at the end of an outfall pipe on the shoreline (Figure 2a & 2b).

Figure 1: Site Location, Larne SPS Facility, Larne Harbour

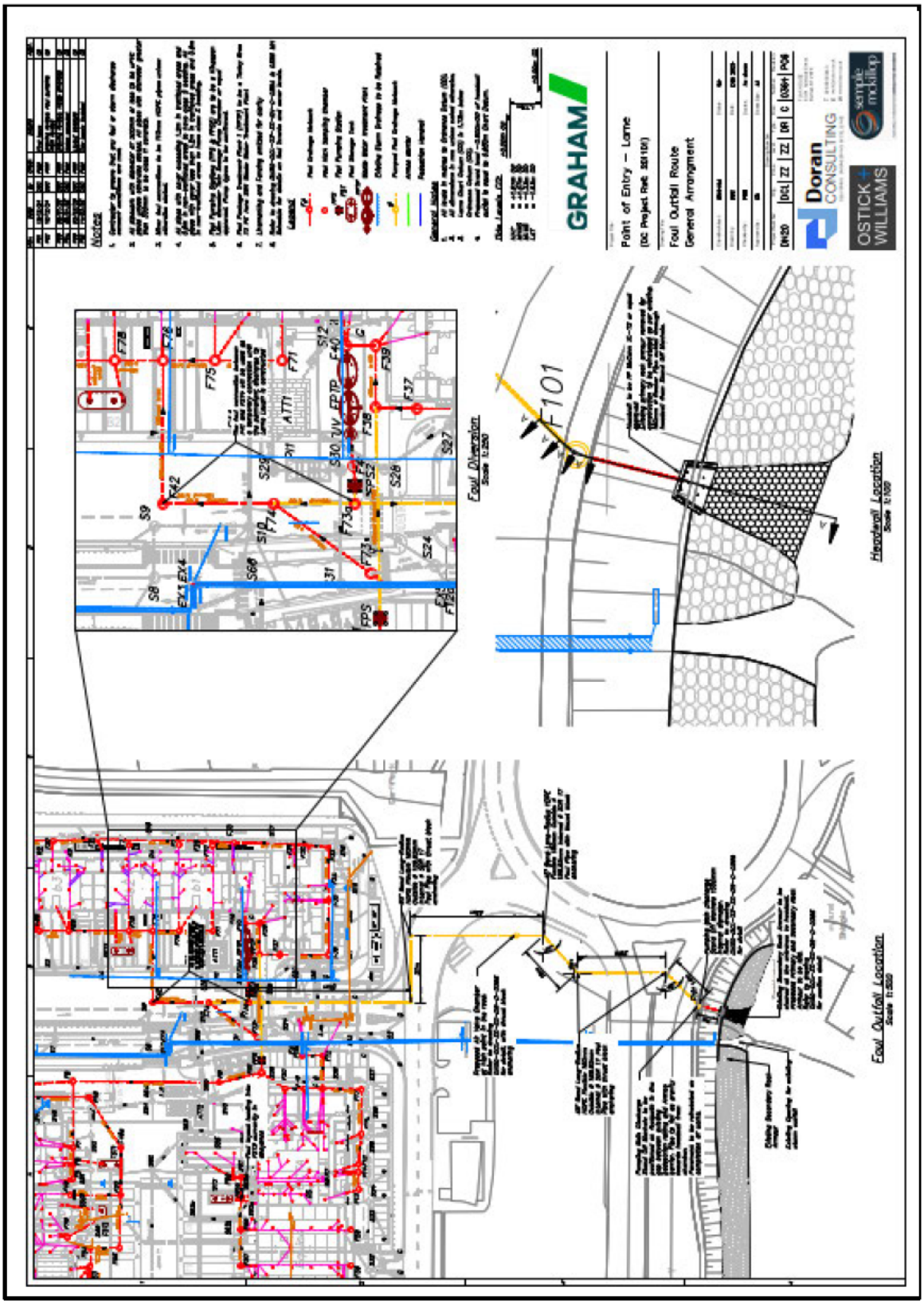

Figure 2a: Outfall Route

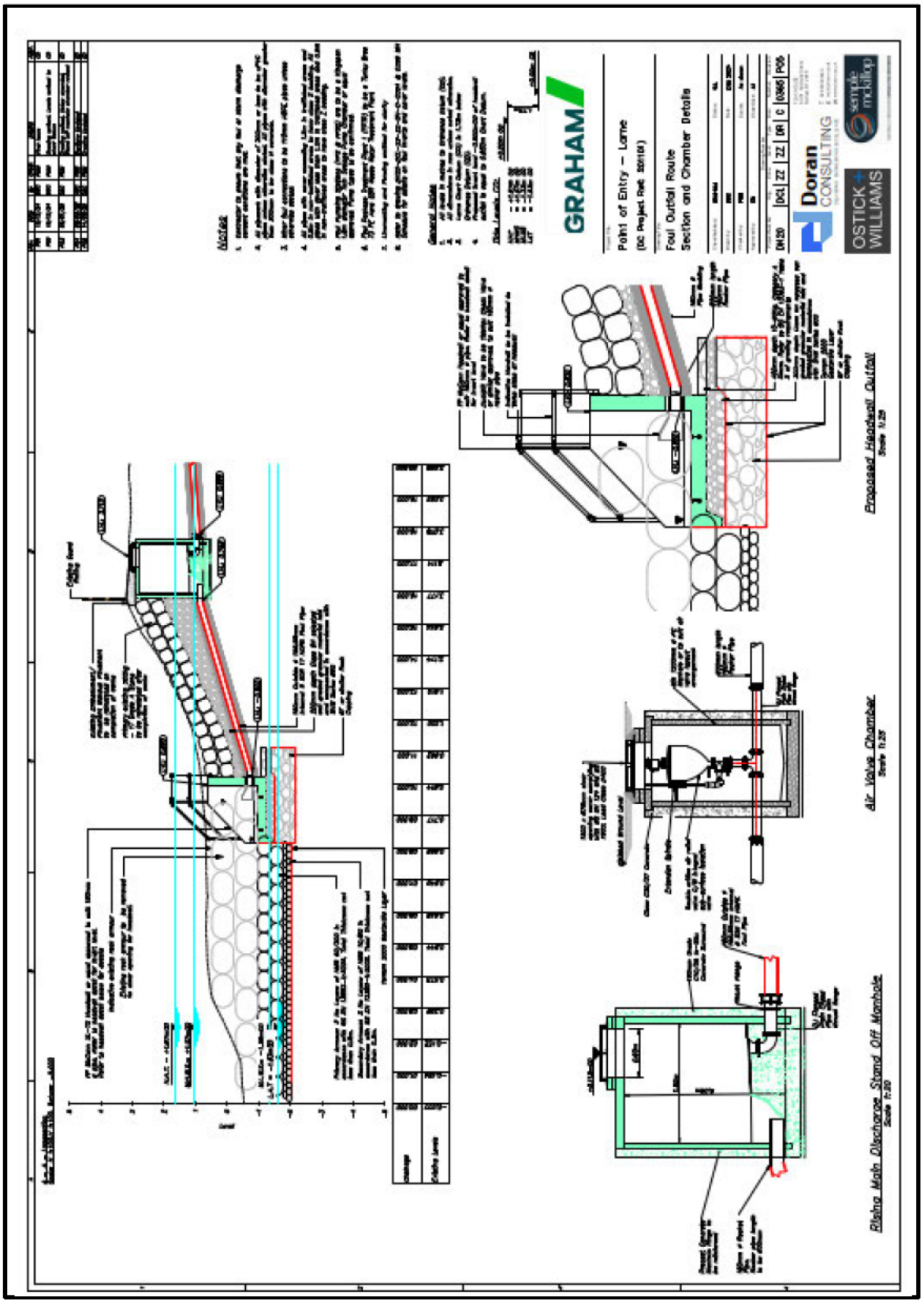

Figure 2b: Section & Chamber Details

This report includes the HRA and takes cognisance of the Outline CEMP prepared specifically for this project. The appointed approved Contractor will work to the requirements of the CEMP that takes into account the following DAERA 'Standing Advice' and Guidance:

- Development that may have an Effect on the Water Environment
  - Discharge to the Water Environment
  - Pollution Prevention Guidance
  - Marine Litter
- Development that may effect Natural Heritage Interests
  - Invasive Alien Species
  - Priority Habitats
  - Priority Species
- Marine Non-Native Species
- Marine Wildlife Disturbance

The HRA will be submitted in support of a Marine Licence Application for the proposed Headwall installation works. The HRA is supported by the following summary methodology for the Headwall installation works at the Larne Port SPS facilities. In addition, relevant engineering drawings are presented in Section 6.0.

REPLACEMENT HEADWALL INSTALLATION AT LARNE PORT SPS FACILITIES: SUMMARY METHODOLOGY

Predecessor Works

Prior to carrying out any of the works for the headwall, the pumping main from Larne PoE site and connecting manholes will be installed up to the last manhole located in the hard shoulder adjacent the headwall. This will allow the final connection and marine works to be carried out under one TM setup.

Site Clearance and CDM Area Set Up

Due to the proximity to the hard shoulder a lane closure will be required to be approved. A traffic management plan will be submitted and approved. The CDM Area will be set up in accordance with the traffic management plan. The existing rock armour will be removed using an excavator with a grab attachment. The rock armour will be stored in the CDM Area.

Installation of Headwall

The position of the headwall will be marked out and then the area will be excavated to formation level as per the construction drawings. The excavated material will be taken directly off site in lorries. The geotextile will be laid and the 6F capping will be placed and compacted in layers. The geotextile will then be wrapped up the outside of the capping. The 6N Material will be laid and compacted in layers. Due to the weight of the precast concrete headwall, it will be lifted into position using a crane. The crane will be set up on the hard shoulder and lift the headwall into position. Once the headwall is in position the levels will be checked and then the existing rock armour will be placed back into position using the excavator with the grab attachment. The duckbill check valve will

be lifted into position using an excavator and installed. The drainage connected to the outlet of the headwall will not be in operation.

2.0 HRA PROCESS

Where a proposal involves a project with potential to affect an area that contributed to the UK National Site Network, such as a Special Area of Conservation (SAC) or Special Protection Area (SPA), the appointed competent authority is legally obliged to carry out a HRA. SACs and SPAs contribute to a UK National Site Network on land and at sea, including both the inshore and offshore marine areas.

A HRA is a tool put in place to ensure that a project will not have an adverse effect on the integrity of any SAC and SPA sites and must be undertaken if there is any potential for the designated site to be affected. The outcome of the assessment is the responsibility of the competent authority.

In respect of this proposed project, the developer is a designated competent authority and therefore this submission is a HRA.

The first step under the HRA procedure is what is commonly referred to as The Test of Likely Significance or Screening Test and this is presented in Section 3.0. Where the competent authority deems a project not likely to have a significant effect on any SAC or SPA, either alone or in combination with other plans or projects, then the HRA procedure is complete. Where the competent authority deems that a project is likely to have a significant effect on any SAC or SPA then a further stage in the HRA process must take place. This involves conducting an Appropriate Assessment (AA) where the implications of the project must be considered in respect of the relevant designated sties' conservation objectives. The competent authority may then agree to the project if it decides that it will not adversely affect the integrity of the relevant SAC and SPA sites, having considered the mitigation measures proposed by the developer. For this proposed project an AA is presented in Section 4.0.

This HRA has been prepared in accordance with Regulation 43(1) of the Conservation (Natural Habitats, etc.) (Northern Ireland) 1995 (as amended). It takes cognisance of the HRA requirement to take into account mitigation measures along with all legally enforceable obligations designed to avoid environmental effects. It also reflects the requirement for the competent authority to apply the precautionary approach set out in Commission Guidance: Managing Natura 2000 Sites and as required by the European Court of Justice in C 127/02 (Waddenzee).

Note: This HRA relates only to the works involved to instal the outfall Headwall. The overall SPS Facilities works has been subject to separate compliance application including the preparation of a HRA (Report Ref: 784-B050208 October 2023).

3.0 STAGE 1: TEST OF LIKELY SIGNIFICANCE (SCREENING)

Screening Matrix

Name of Project or Plan:

Larne SPS Facilities: Headwall Installation

DEFRA has a requirement to extend existing facilities at Larne Port to cater for the enhanced number of Sanitary and Phytosanitary (SPS) checks required for imports into Northern Ireland. As an element of the overall works, a Headwall will be constructed to discharge treated effluent to Larne Lough Irish Grid Reference (IGR) D 41140 01876 (Figure 1, Section 1.0). The Headwall will be constructed at the end of an outfall pipe on the shoreline (Figure 2a & 2b, Section 1.0). The works will be undertaken by an approved contractor, who will be required to implement a robust CEMP. Work on the headwall will be during low-water intervals.

Name and Location of National Site Network site:

East Coast (NI) Marine pSPA
Larne Lough SPA & Ramsar
North Channel SAC (Harbour Porpoise only)
Maidens SAC (Grey Seal only)

In respect of the features, conservation objectives and connection distances no conceivable effects on the following designated sites are envisaged: Skerries & Causeway SAC, Outer Belfast Lough MCZ and Antrim Hills SPA.

National Site Network site features (Figure 2a – 2e):

East Coast (NI) Marine pSPA
Great Crested Grebe
Red-throated Diver
Sandwich Tern
Common Tern
Arctic Tern
Manx Shearwater
Eider Duck

Larne Lough SPA
Sandwich Tern
Common Tern
Roseate Tern
Light-bellied Brent Goose

North Channel cSAC
Harbour Porpoise

Maidens SAC
Sandbanks which are slightly covered by sea water all the time
Reefs
Grey Seal

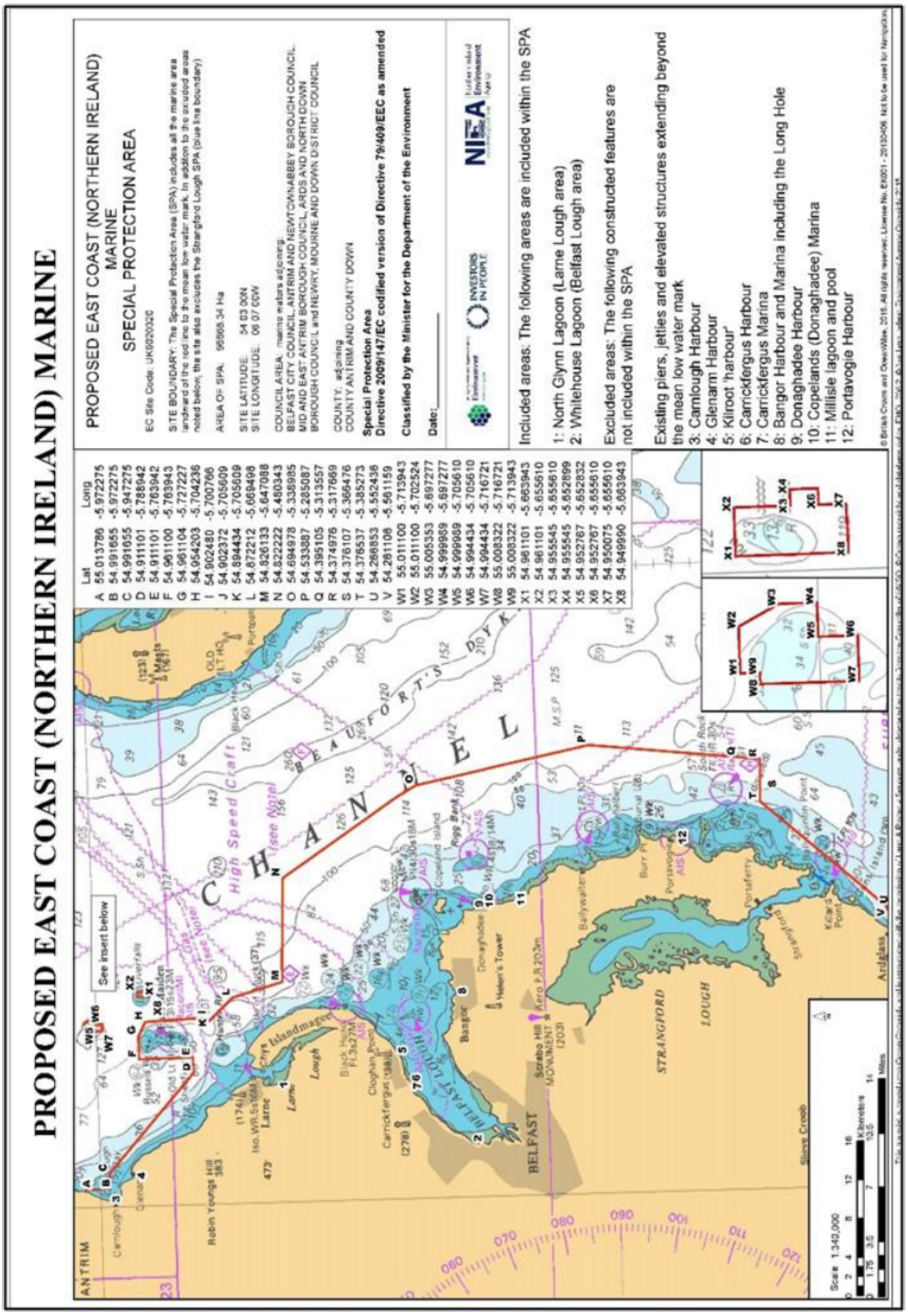

Figure 2a: East Coast (NI) Marine pSPA Boundary (DAERA)

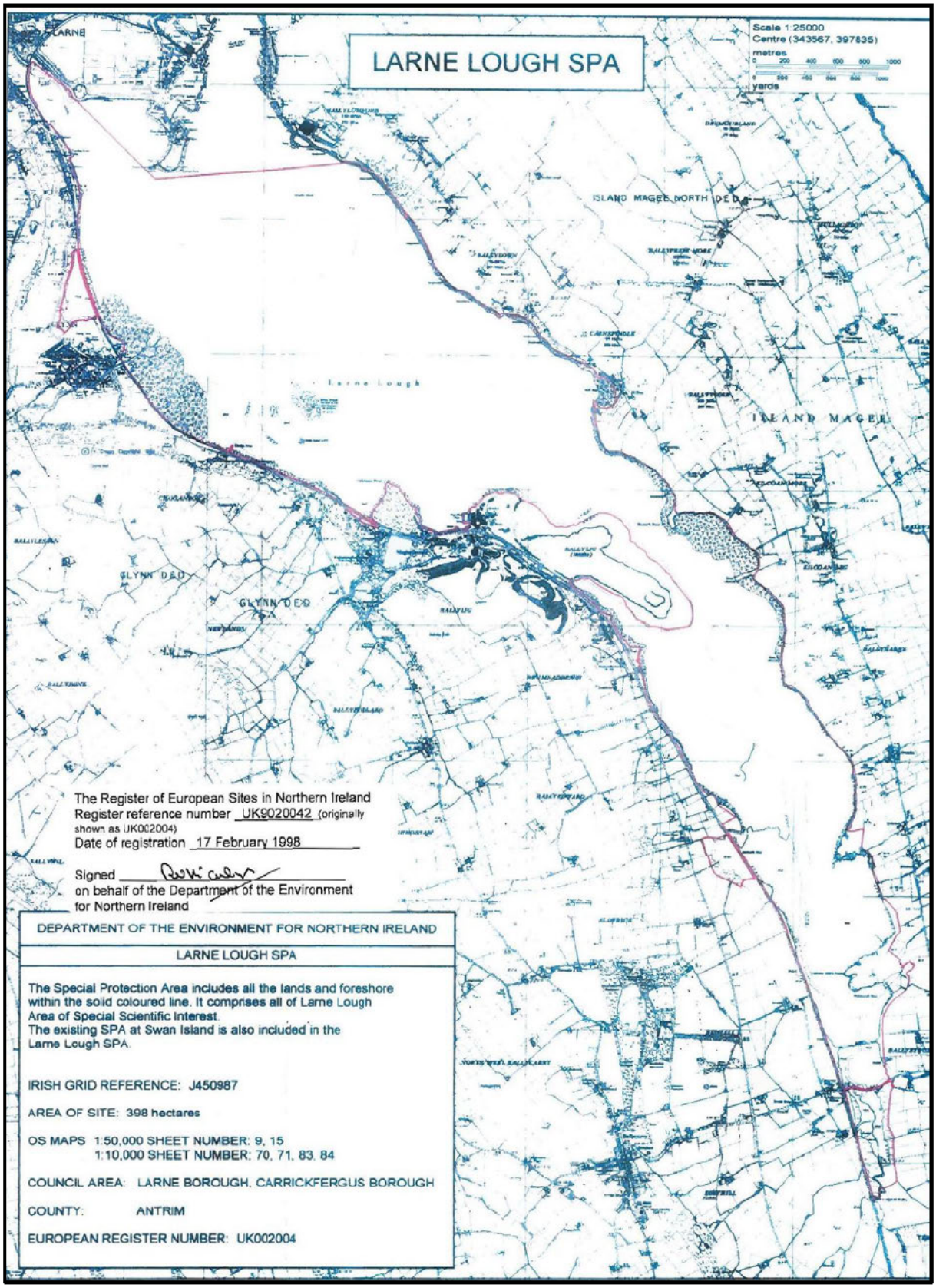

Figure 2b: Larne Lough SPA Boundary (DAERA)

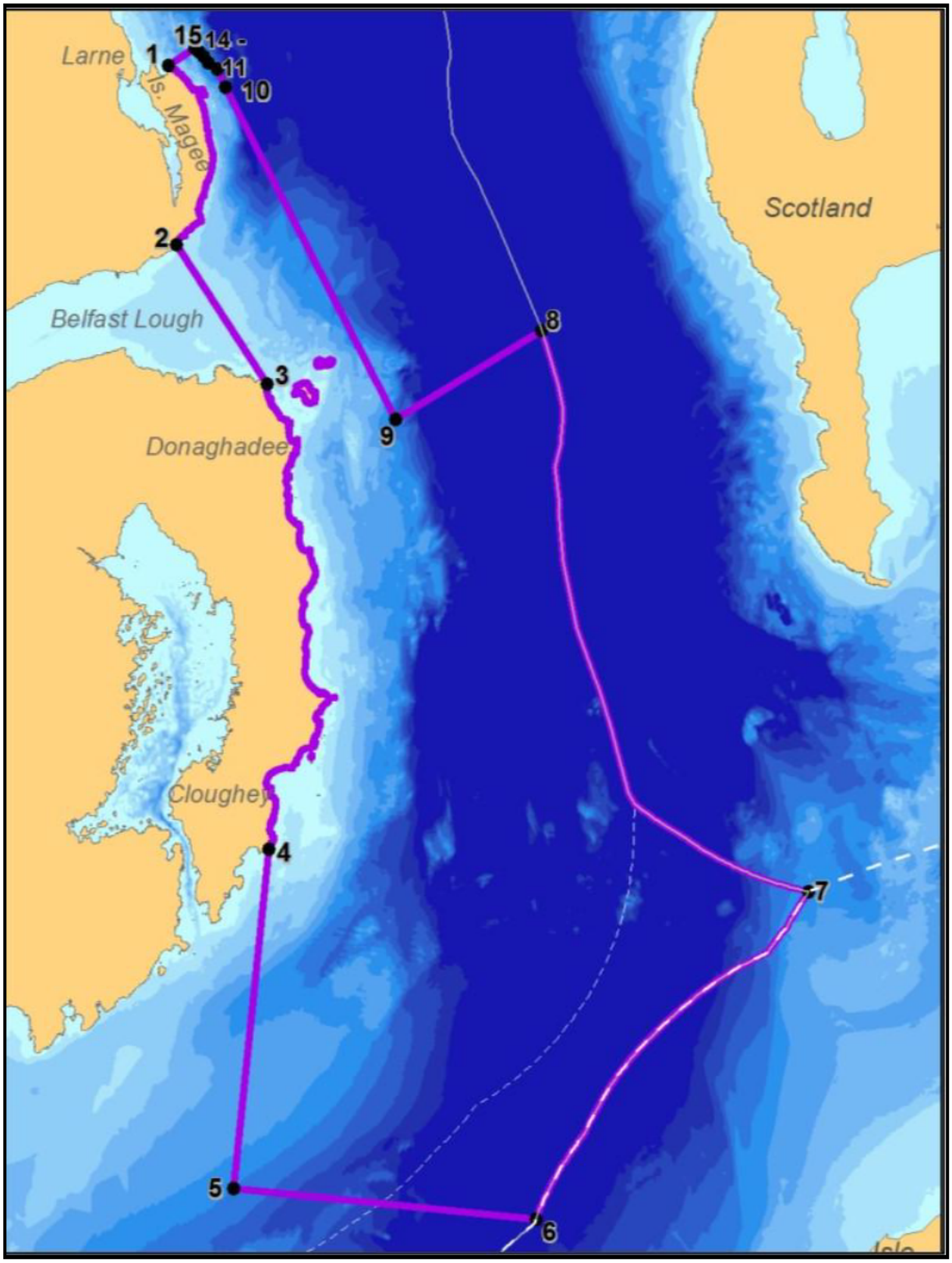

Figure 2d: North Channel SAC (DEFRA & JNCC)

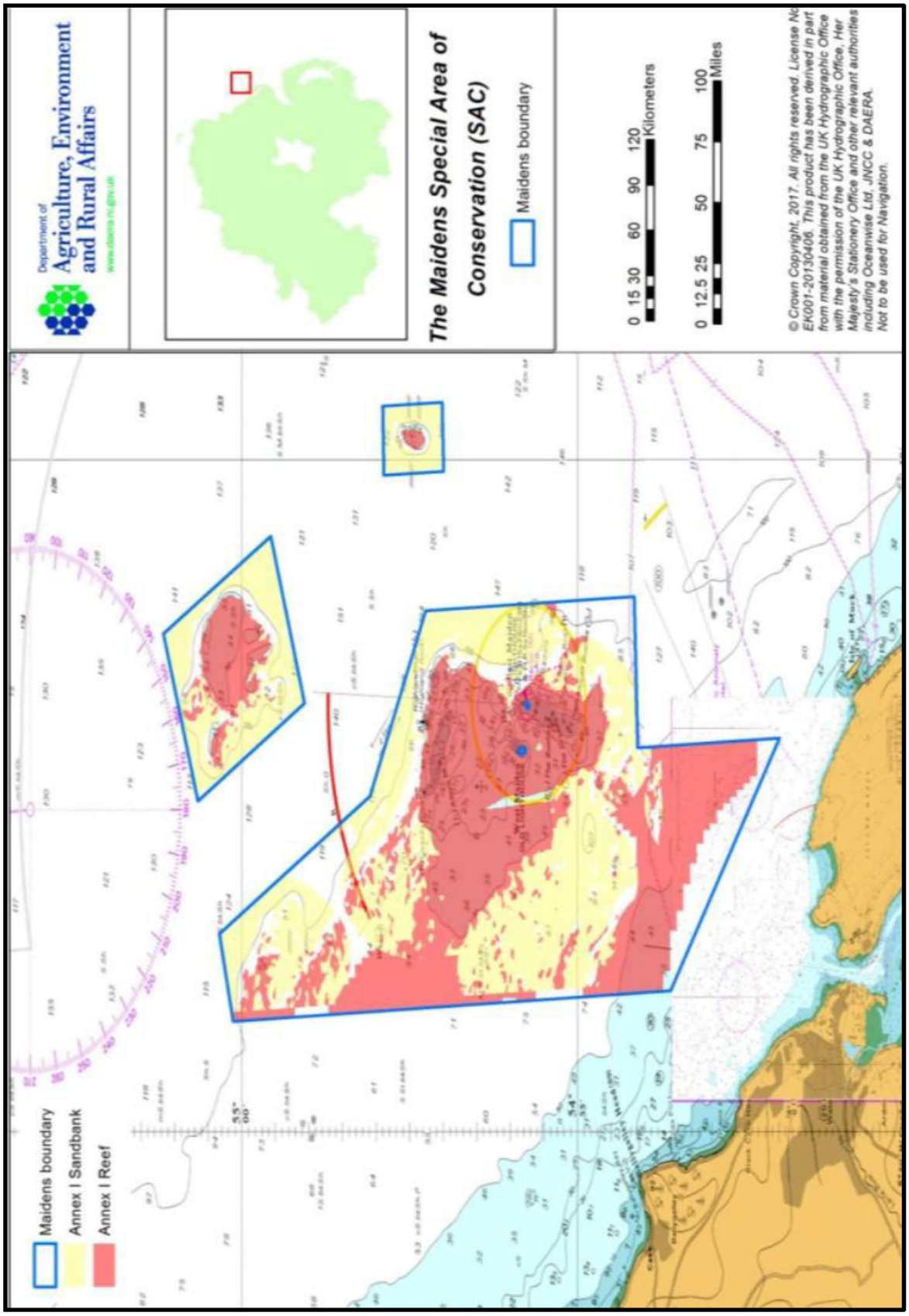

Figure 2e: The Maidens SAC Boundary (DAERA)

Birds

The East Coast (NI) Marine pSPA has been selected because of the important populations of Sandwich, Common and Arctic Tern that feed there during the breeding season, flying from adjoining designated breeding colonies in Larne Lough, Belfast Lough, Outer Ards, Copeland Islands and Strangford Lough SPAs. The Tern species are migratory visitors, coming to these east coast sites to breed. The area is also of importance for the Manx Shearwater population breeding on Copeland Islands SPA. Outside the breeding season, the area supports important populations of Red-throated Diver, Great Crested Grebe and Eider Duck.

Larne Lough SPA has been selected because of the important populations of breeding Sandwich, Common and Roseate Tern together with the non-breeding population of Light-bellied Brent Geese. The SPA provides suitable habitat to meet their various needs including sites for breeding (for the Tern species) feeding and roosting. The tern species are migratory visitors, coming to Larne Lough to breed using Swan Island and Blue Circle Island for nesting and feeding on a range of small fish in adjoining coastal waters. Sand-eel is a particularly important prey item. After breeding, Sandwich Tern spend our winter around the coasts of the western Mediterranean as well as western and southern Africa, although increasingly some birds are present through the winter. Common Tern also spend our winter in coastal waters around southern Africa. Our rarest tern species, Roseate Tern, also heads to Africa, spending our winter around the coast of western Africa. In contrast. the non-breeding Light-bellied Brent Geese enjoy a relatively mild winter in Northern Ireland compared to conditions in their breeding grounds in high latitudes of north-east Canada. Ireland is a particularly important site for Light-bellied Brent Geese, with almost all of the worlds breeding population wintering on coastal sites here. Most of these visitors spend at least some time feeding on Lough Foyle and particularly Strangford Lough before dispersing to other sites including Lame Lough. The geese are highly dependent on inter-tidal swards of Eel-grass as their main food although they will also eat a range of other grasses and algae.

Given that the boundary of the East Coast (NI) Marine pSPA is adjacent to the proposed Headwall and Larne Lough SPA is 0.6 km to the west, there is potential to impact the sites' SPA features.

Marine Habitats

Although there are no designated SACs in proximity to the proposed Headwall installation works, Annex 1 marine habitats are located within Larne Lough: large shallow inlets and bays (~0.2 km); saline lagoons (~0.6 km); mudflats & sandflats not covered by seawater at all times (~0.7 km).

Given the nature and scale of the proposed Headwall installation works and the distance to the nearest Annex 1 marine habitats, impact is deemed insignificant. In addition, the fact that works will be undertaken in at low-water intervals, and the CEMP takes cognisance of DAERA 'Standing Advice on Marine Non-Native Species', renders the potential for non-native species release negligible.

Marine Mammals

Harbour porpoise is a selection feature of North Channel SAC (~3.2 km) and grey seal is a selection feature of Maidens SAC (~4.6 km). There will be no piling operations associated with the construction works. Therefore, there is no requirement to apply the JNCC, NRW, DAERA and Natural England '*Guidance for assessing the significance of noise disturbance against Conservation Objectives of Harbour Porpoise SACs*.

Given the location, nature and scale of the proposed Headwall installation works, including the absence of piling and works occurring at low water, the impact on marine mammals is insignificant.

Coastal Processes & Climate Change

These Headwall installation works are required to ensure efficient discharge from the water treatment system at the Larne Port SPS facility. The area is designated as 'moderate' in respect of the NI Coastal Erosion Risk Appraisal (DAERA Marine Map Viewer). There will be no land-take or impact on flood risk. Therefore, the proposed works are deemed not to represent a detrimental impact on coastal processes, taking into account future sea level rise and coastal erosion.

Other Relevant Designations

Larne Lough Ramsar Site qualifies under Criterion 3c of the Ramsar Convention by regularly supporting internationally important numbers of light-bellied Brent geese in winter. The site also qualifies under Criterion 2a by supporting an important assemblage of vulnerable and endangered Irish Red Data Book bird species.

Given that Larne Lough Ramsar site is ~0.6 km to the west of the proposed Headwall, there is potential to impact the site's features.

Description of the Project or Plan:

Size and scale

A draft methodology has been prepared for the proposed Headwall installation works at Larne Port SPS facilities as detailed below:

REPLACEMENT HEADWALL INSTALLATION AT LARNE PORT SPS FACILITIES: SUMMARY METHODOLOGY

Predecessor Works
Prior to carrying out any of the works for the headwall, the pumping main from Larne PoE site and connecting manholes will be installed up to the last manhole located in the hard shoulder adjacent the headwall. This will allow the final connection and marine works to be carried out under one TM setup.

Site Clearance and CDM Area Set Up
Due to the proximity to the hard shoulder a lane closure will be required to be approved. A traffic management plan will be submitted and approved. The CDM Area will be set up in accordance with the traffic management plan. The existing rock armour will be removed using an excavator with a grab attachment. The rock armour will be stored in the CDM Area.

Installation of Headwall
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Relevant engineering drawings are presented in Section 6.0 Supporting Documentation.

Land-take
There will be no land-take within any designated site.

Distance from National Site Network site or key features of the site
The site of the proposed works is adjacent to the boundary of East Coast (NI) Marine pSPA, ~0.6 km east of Larne Lough SPA & Ramsar site, ~3.2 km south west of North Channel SAC and ~4.6 km south west of The Maidens SAC.

Resource requirements (water abstraction etc.)
There are no resources required for the proposed works.

Emission (disposal to land, water or air)
There will be no emissions during the construction phase of the project.

Excavation requirements
Excavation works will be restricted to on-land trench excavation and temporary removal/reinstatement of existing rock armour. Any material not suitable for re-instatement will be disposed of in accordance with Duty of Care Regulations.

Transportation requirements
There will be no transportation issues in any designated site. Construction traffic will access from the local road network and will operate exclusively within the project boundary.

Duration of construction, operation, decommissioning etc.
The project works will take place during 2025. Work is expected to be completed over a two week period.

Other: N/A

Is the Project or Plan directly connected with or necessary to the management of the site (provide details)?
No The proposed works are to ensure efficient discharge from the water treatment system at the Larne Port SPS facility.

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to effects on the SAC/SPA site:		
Feature affected:	**Likely direct, indirect effects to the feature arising as a result of:**	**Significant/Not Significant (inc. explanation):**
Great Crested Grebe	**Reduction of habitat area:** None	Not Significant: feature not impacted
	Disturbance: No disturbance	Not Significant: feature not impacted
	Habitat or species fragmentation: None	Not Significant: feature not impacted
	Reduction in species density: None	Not Significant: feature not impacted
	Changes in key indicators of conservation value (e.g. water quality, climate change): Water Quality	**Potentially Significant: Contractor required to adhere to CEMP**
Red-throated Diver	**Reduction of habitat area:** None	Not Significant: feature not impacted
	Disturbance: No disturbance	Not Significant: feature not impacted
	Habitat or species fragmentation: None	Not Significant: feature not impacted
	Reduction in species density: None	Not Significant: feature not impacted
	Changes in key indicators of conservation value (e.g. water quality, climate change): Water Quality	**Potentially Significant: Contractor required to adhere to CEMP**
Sandwich Tern	**Reduction of habitat area:** None	Not Significant: feature not impacted
	Disturbance: No disturbance	Not Significant: feature not impacted
	Habitat or species fragmentation: None	Not Significant: feature not impacted
	Reduction in species density: None	Not Significant: feature not impacted
	Changes in key indicators of conservation value (e.g. water quality, climate change): Water Quality	**Potentially Significant: Contractor required to adhere to CEMP**
Common Tern	**Reduction of habitat area:** None	Not Significant: feature not impacted
	Disturbance: No disturbance	Not Significant: feature not impacted
	Habitat or species fragmentation: None	Not Significant: feature not impacted
	Reduction in species density: None	Not Significant: feature not impacted
	Changes in key indicators of conservation value (e.g. water quality, climate change): Water Quality	**Potentially Significant: Contractor required to adhere to CEMP**
Arctic Tern	**Reduction of habitat area:** None	Not Significant: feature not impacted
	Disturbance: No disturbance	Not Significant: feature not impacted
	Habitat or species fragmentation: None	Not Significant: feature not impacted
	Reduction in species density: None	Not Significant: feature not impacted
	Changes in key indicators of conservation value (e.g. water quality, climate change): Water Quality	**Potentially Significant: Contractor required to adhere to CEMP**
Manx Shearwater	**Reduction of habitat area:** None	Not Significant: feature not impacted
	Disturbance: No disturbance	Not Significant: feature not impacted
	Habitat or species fragmentation: None	Not Significant: feature not impacted
	Reduction in species density: None	Not Significant: feature not impacted
	Changes in key indicators of conservation value (e.g. water quality, climate change): Water Quality	**Potentially Significant: Contractor required to adhere to CEMP**

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to effects on the SAC/SPA site:		
Feature affected:	**Likely direct, indirect effects to the feature arising as a result of:**	**Significant/Not Significant (inc. explanation):**
Eider Duck	**Reduction of habitat area:** None	Not Significant: feature not impacted
	Disturbance: No disturbance	Not Significant: feature not impacted
	Habitat or species fragmentation: None	Not Significant: feature not impacted
	Reduction in species density: None	Not Significant: feature not impacted
	Changes in key indicators of conservation value (e.g. water quality, climate change): Water Quality	**Potentially Significant: Contractor required to adhere to CEMP**
Roseate Tern	**Reduction of habitat area:** None	Not Significant: feature not impacted
	Disturbance: No disturbance	Not Significant: feature not impacted
	Habitat or species fragmentation: None	Not Significant: feature not impacted
	Reduction in species density: None	Not Significant: feature not impacted
	Changes in key indicators of conservation value (e.g. water quality, climate change): Water Quality	**Potentially Significant: Contractor required to adhere to CEMP**
Light-bellied Brent Goose Godwit	**Reduction of habitat area:** None	Not Significant: feature not impacted
	Disturbance: No disturbance	Not Significant: feature not impacted
	Habitat or species fragmentation: None	Not Significant: feature not impacted
	Reduction in species density: None	Not Significant: feature not impacted
	Changes in key indicators of conservation value (e.g. water quality, climate change): Water Quality	**Potentially Significant: Contractor required to adhere to CEMP**
Harbour Porpoise	**Reduction of habitat area:** None	Not Significant: feature not impacted
	Disturbance: No disturbance	Not Significant: feature not impacted
	Habitat or species fragmentation: None	Not Significant: feature not impacted
	Reduction in species density: None	Not Significant: feature not impacted
	Changes in key indicators of conservation value (e.g. water quality, climate change): Water Quality	Not Significant (Contractor to adhere to appropriate CEMP)
Grey Seal	**Reduction of habitat area: None**	Not Significant: feature not impacted
	Disturbance: No disturbance	Not Significant: feature not impacted
	Habitat or species fragmentation: None	Not Significant: feature not impacted
	Reduction in species density: None	Not Significant: feature not impacted
	Changes in key indicators of conservation value (e.g. water quality, climate change): Water Quality	Not Significant (Contractor to adhere to appropriate CEMP)

Describe any potential effects on the National Site Network site as a whole in terms of: interference with the key relationships that define the structure or function of the site	**Effect considered significant/non-significant: Finding of No significant effects Matrix**
Potential impact from construction activities in respect of SPA & Ramsar site features, including pollution risk and spread of invasive species due to proximity to open water taking cognisance of hydrological linkage.	Potentially significant.
Provide details of any other projects or plans that together with the project or plan being assessed could (directly or indirectly) affect the site.	**Provide details of any likely in-combination effects and quantify their significance -**
None	None
Is the potential scale or magnitude of any effect likely to be significant?	
Alone?	**No** ☐ **Yes** ☒
In-combination with other projects of plans?	**No** ☒ **Yes** ☐
List of Agencies Consulted: Provide contact name and telephone or email address.	DAERA Marine Conservation & Reporting Team
Summary of response to consultation received	Potential significant effects identified
Conclusion: Is the proposal likely to have a significant effect on an NSN site?	**No** ☐ **Yes** ☒

Data collected to carry out the assessment

Who carried out the assessment?	[redacted]
Sources of data	DAERA (Consultation & data provision) Doran Consulting (Project design)
Level of assessment completed	Test of Likely Significance & Appropriate Assessment Report
Where can the full results of the assessment be accessed and viewed?	Doran Consulting Flax House 83-91 Adelaide Street Belfast BT2 8FE
Summary of response.	Potential impact from construction activities in respect of pollution risk and spread of invasive species due to proximity to open water taking cognisance of hydrological linkage to National Network Sites (East Coast (NI) Marine pSPA and Larne Lough SPA & Ramsar).

4.0 STAGE 2: APPROPRIATE ASSESSMENT

Assessment of Effects of the Project or Plan on the Integrity of the Site	
Describe the elements of the project or plan (alone or in combination with other projects or plans) that are likely to give rise to significant effects on the site (from screening assessment)	Construction activities present potential pollution and spread of invasive species risk due to proximity to open water taking cognisance of hydrological linkage to East Coast (NI) Marine pSPA and Larne Lough SPA & Ramsar.
Set out the Conservation Objectives of the site	From *EAST COAST (NI) MARINE pSPA, UK9020320, CONSERVATION OBJECTIVES, DoENI April 2015:* 1. *To maintain each feature in favourable condition* 2. *To maintain or enhance the population of the qualifying species* 3. *To maintain or enhance the range of habitats utilised by the qualifying species* 4. *To ensure that the integrity of the site is maintained* 5. *To ensure there is no significant disturbance of the species* 6. *To ensure that the following are maintained in the long term:* • *Population of the species as a viable component of the site* • *Distribution of the species within site* • *Distribution and extent of habitats supporting the species* • *Structure, function & supporting processes of habitats supporting the species.* From *LARNE LOUGH SPA UK9020221 CONSERVATION OBJECTIVES, DAERA 1st April 2015* 1. *To maintain each feature in favourable condition* 2. *To maintain or enhance the population of the qualifying species* 3. *Fledging success sufficient to maintain or enhance population* 4. *To maintain or enhance the range of habitats utilised by the qualifying species* 5. *To ensure that the integrity of the site is maintained* 6. *To ensure there is no significant disturbance of the species* 7. *To ensure that the following are maintained in the long term:* • *Population of the species as a viable component of the site* • *Distribution of the species within site* • *Distribution and extent of habitats supporting the species* • *Structure, function & supporting processes of habitats supporting the species.*

Describe how the project or plan will affect key species, key habitats and the integrity of the site (determined by structure and function and conservation objectives). Acknowledge uncertainties and any gaps in information.	Potential for interference with the key relationships that define the structure or function of the NSN sites in respect of proximity to open water taking cognisance of hydrological linkage.
Describe what mitigation measures are to be introduced to avoid or reduce the adverse effects on the integrity of the site. Acknowledge uncertainties and any gaps in information.	1. Full adherence to Marine Licence 2. Full adherence to CEMP, ensuring the following DAERA 'Standing Advice' and Guidance is fully considered: • *Development that may have an Effect on the Water Environment (Discharge to the Water Environment; Pollution Prevention Guidance; Marine Litter)* • *Development that may effect Natural Heritage Interests (Invasive Alien Species; Priority Habitats; Priority Species)* • *Marine Non-Native Species* • *Marine Wildlife Disturbance* 3. Full adherence to Marine Non-Native Species 'Inspect, Remove, Clean, Dispose & Report' approach

Appropriate Assessment: Mitigation Measures			
List measures to be introduced	**Explain how the measures will avoid the adverse effects on the integrity of the site.**	**Explain how the measures will reduce the adverse effects on the integrity of the site.**	**Provide evidence of how they will be implemented and by whom.**
(i) Full adherence to Marine Licence	Marine Licence will impose appropriate conditions to protect SPA, Ramsar and SAC site designation features during construction phase.	Conditions will minimise potential for adverse pollution impacts.	Contractor will be required to adhere to all statutory licence conditions.
(ii) Full adherence to CEMP	Comprehensive CEMP established to maintain an ethos of environmental best practice throughout the project.	Procedural control over identified potential environmental risks.	Project Contractor will be required to retain evidence that CEMP is fully implemented and that appropriate 'Tool-Box Talks' have been delivered.
(iii) Full adherence to Marine Non-Native Species 'Inspect, Remove, Clean, Dispose & Report' approach	CEMP will include specific reference to marine non-native species.	Specific procedural control over marine non-native species risks.	Project Contractor will be required to retain evidence that CEMP is fully implemented and that appropriate 'Tool-Box Talks' have been delivered (including in relation to marine non-native species).

List mitigation measures (as above)	Provide evidence of the degree of confidence in their likely success	Provide time-scale, relative to the project of plan, when they will be implemented	Explain the proposed monitoring scheme and how any mitigation failure will be addressed
(i) Full adherence to Marine Licence	Statutory compliance will be a key requirement for Project Contractor.	Clear instruction on all statutory compliance issues will be delivered prior to commencement of works and will be audited during construction phase. Statutory Agencies will conduct site inspections at their discretion.	Project Contractor will be audited by Design Engineers. Issues identified will be subject to immediate corrective action.
(ii) Full adherence to CEMP	The specific CEMP procedures for pollution control and mitigation represent current best practice techniques for pollution prevention.	The CEMP has been established prior to commencement of works.	The CEMP will be subject to appropriate review. Issues identified will be subject to immediate corrective action.
(iii) Full adherence to Marine Non-Native Species 'Inspect, Remove, Clean, Dispose & Report' approach	This approach is recommended by DAERA to ensure the risk of spread of marine non-native species is negligible.	This approach will be embedded in the CEMP which has been established prior to commencement of works.	The CEMP will be subject to appropriate review. Issues identified in respect of marine non-native species will be subject to immediate corrective action.

5.0 CONCLUSIONS

Following a Stage 1 Test of Likely Significance (Section 3.0) this found that the proposed Headwall installation at Larne would result in:

> *'Potential impact from construction activities in respect of pollution risk and spread of invasive species due to proximity to open water taking cognisance of hydrological linkage to National Network Sites (East Coast (NI) Marine pSPA and Larne Lough SPA & Ramsar).'*

Consequently, a Stage 2 Appropriate Assessment (AA) was conducted (Section 4.0). This AA concentrated on East Coast (NI) Marine pSPA and Larne Lough SPA & Ramsar.

Conservation objectives relevant to the designated site selection features were considered, current site information assessed, and the precautionary principle applied. In addition, potential impacts were considered alone and in combination with other relevant projects.

In respect of potential water pollution risk, the appointed Contractor will work to the requirements of the CEMP that takes into account the following DAERA 'Standing Advice' and Guidance: *Development that may have an Effect on the Water Environment (Discharge to the Water Environment; Pollution Prevention Guidance; Marine Litter); Development that may effect Natural Heritage Interests (Invasive Alien Species; Priority Habitats; Priority Species); Marine Non-Native Species; Marine Wildlife Disturbance.* In addition, the appointed Contractor will work to strict protocols in respect of chemicals, hazardous materials and fuelling arrangements; concrete wash water; and vehicle washing.

Recognising that there are currently approximately 100 invasive non-native freshwater and marine species established in Northern Ireland, strict protocols will be in place in respect of plant and equipment used on-site. In accordance with DAERA 'Standing Advice' on Marine Non-Native Species, these protocols will be based on the 'Inspect, Remove, Clean, Dispose & Report' approach promoted by DAERA and Invasive Species NI. Plant and equipment will be subject to the following prior to leaving its previous location:

- **Inspect** all equipment that has been in a waterbody (boats, trailers, engines, outboards, dredgers, weed cutting or harvesting boats, cruisers or even clothing) or terrestrial site for attached vegetation, contaminated soil or obvious animal life before moving to another waterway, catchment or site
- **Remove** any adhering plant, soil or animal material from your equipment for disposal before relocating to another watercourse, section of waterway or site. Ensure that all water is drained from your boat and equipment before transportation to another site and all soil is removed from machinery, as this may contain seed or plant fragments
- **Clean** all equipment with a power hose away from the waterbody. Use hot water (>60 degrees centigrade) where possible

- **Dispose** of all plant and animal material in bags or containers for disposal in bins. Do not throw them back into the water or leave them lying at the water's edge
- **Report** and take photos of species you think may be an INNS on the Invasive Species NI website

The above will also be applied to plant and equipment prior to removal from site on completion of works.

The AA concludes that in consideration of the appropriate mitigation measures proposed, there will be no adverse impact on the integrity of East Coast (NI) Marine pSPA and Larne Lough SPA & Ramsar or any other designated site.

6.0 SUPPORTING DOCUMENTATION

Rev.	Date	By	Check	Details	Appr.
P01	13/12/24	DBC	PMM	First Issue	CD
P02	18/12/24	DBC	PMM	Drawing revised. Foul pumping main revised	CD
P03	08/01/25	DBC	PMM	Drawing revised. Notes amended	CD
P04	08/01/25	DBC	PMM	Notes amended	CD
P05	03/03/25	DBC	PMM	Layout Updated	CD
P06	14/03/25	DBC	PMM	Tide Levels Updated	CD
P07	30/05/25	KMC	PMM	Outfall Alignment Updated	CD

Notes

1. Contractor to ensure that any foul or storm discharge consent conditions are met.
2. All pipework with diameter of 300mm or less to be uPVC pipes unless otherwise stated. All pipes with diameter greater than 300mm to be class H concrete.
3. Minor foul connections to be 110mm HDPE pipes unless otherwise stated.
4. All pipes with cover exceeding 1.2m in trafficked areas and 0.9m in non-trafficked areas to have class S bedding. All pipes with cover less than 1.2m in trafficked areas and 0.9m in non-trafficked areas to have class Z bedding.
5. Foul Pumping Stations (FPS & FPS2) are to be a Kingspan 1.8m diameter Twin Sewage Pump Chamber or equal approved. Pump types to be confirmed.
6. Foul Package Treatment Plant 1 (FPTP) to be a Turley Bros 73 PE Aero SBR Waste Water Treatment Plant
7. Linemarking and Fencing omitted for clarity
8. Refer to drawing DN20-DCL-ZZ-ZZ-SH-C-0354 & 0356 MH Schedule for details on foul inverts and cover levels.

Legend

- Storm Non Return Valve
- Suspended 110mm ø HDPE connection above substructure level
- Foul NIEA Sampling Chamber
- FPS / FST — Foul Pumping Station
- Foul Storage Tank
- FPTP — Waste Water Treatment Plant
- Pumped Foul Drainage Network
- Armco Barrier
- Pedestrian Handrail

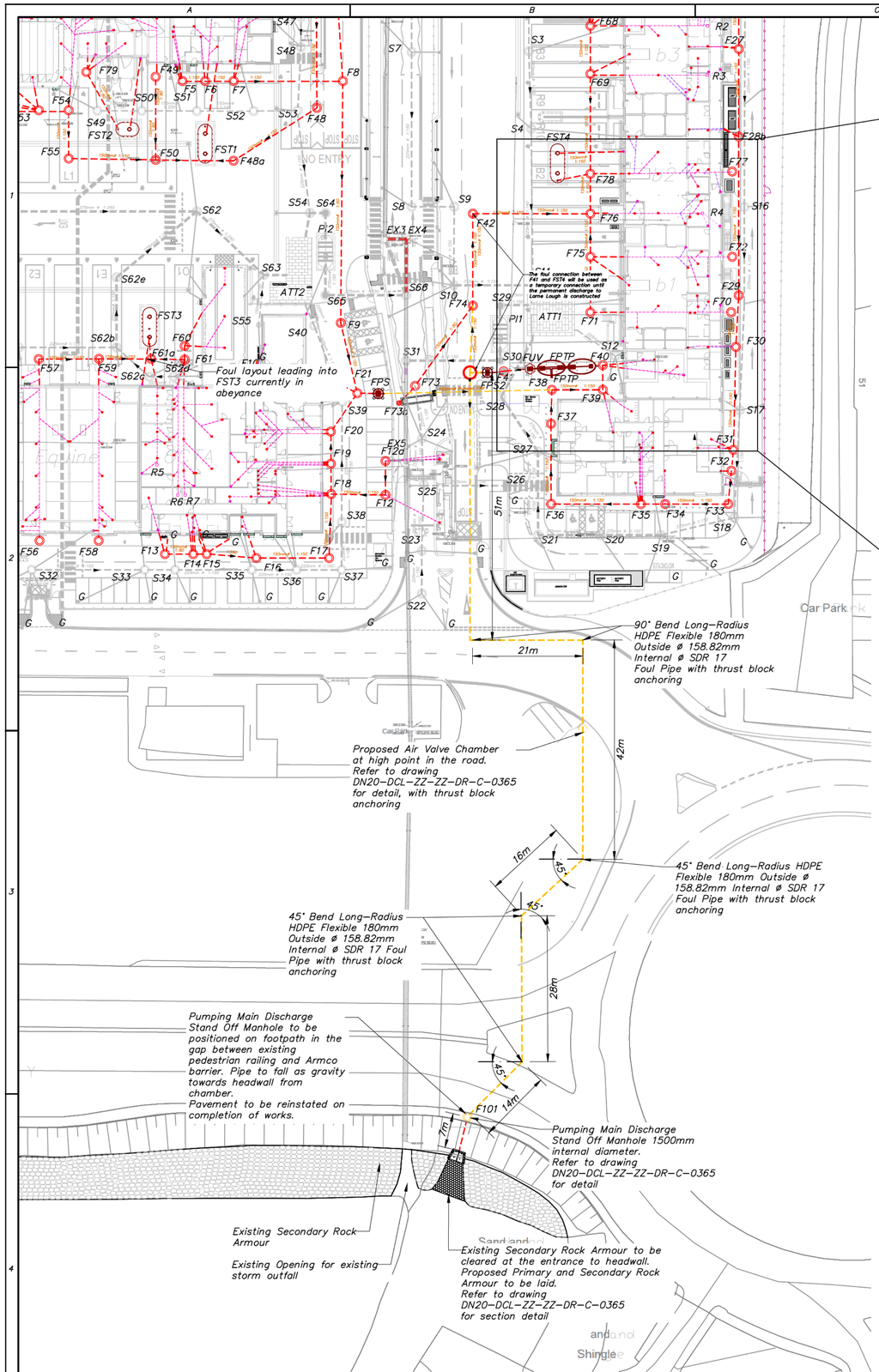
General Notes

1. All levels in metres to Ordnance Datum (OD).
2. All dimensions in mm unless noted otherwise.
3. Larne Chart Datum (CD) is 1.73m below Ordnance Datum (OD).
4. Proposed invert level -0.800mOD of headwall outfall is equal to 0.930m Chart Datum.

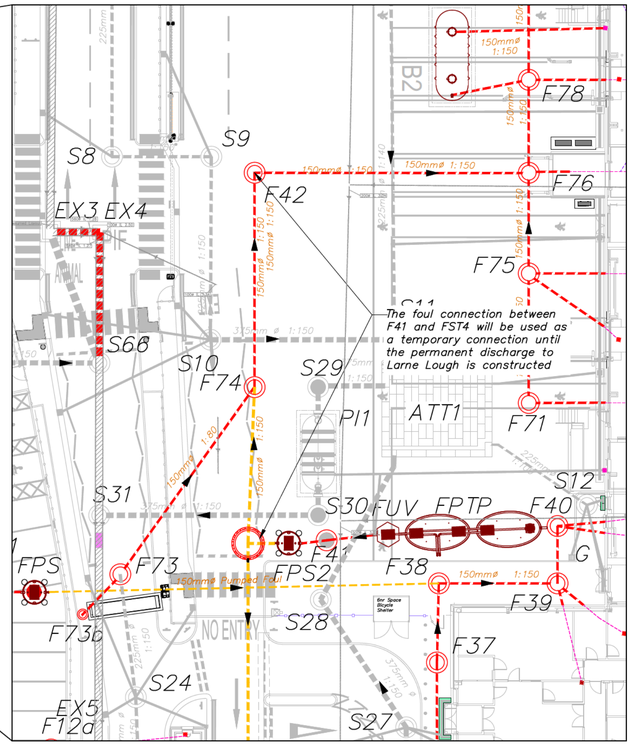
Tide Levels CD:

HAT	= +1.67m OD
MHWS	= +1.07m OD
MLWS	= -1.33m OD
LAT	= -1.63m OD

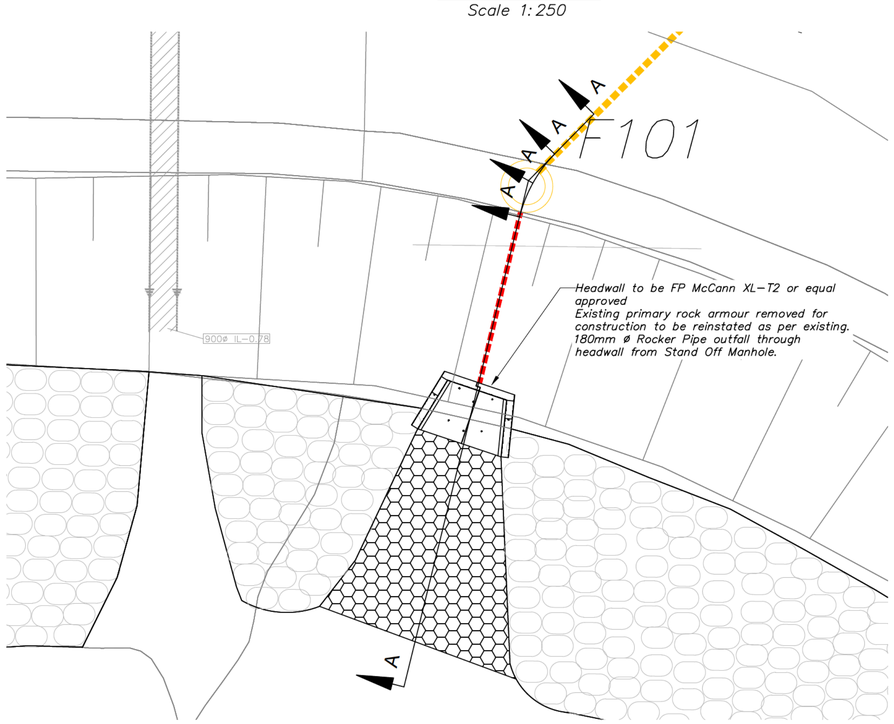
+0.00m OD — 1.73m — +0.00m CD



Foul Outfall Location
Scale 1:500



Foul Diversion
Scale 1:250



Headwall Location
Scale 1:100

GRAHAM

Project Title:

Point of Entry – Larne

(DC Project Ref: 201101)

Drawing Title:

Foul Outfall Route
General Arrangment

Client/Architect:	[redacted]	Status:	S4
Drawn by:		Date:	Dec 2024
Checked by:		Scales:	As shown
Approved by:		Sheet Size:	A1

Drawing Number:

Project Number:	Orig.	Zone.	Level.	Type.	Disc.	Number.	Revision:
DN20	DCL	ZZ	ZZ	DR	C	0364	P07

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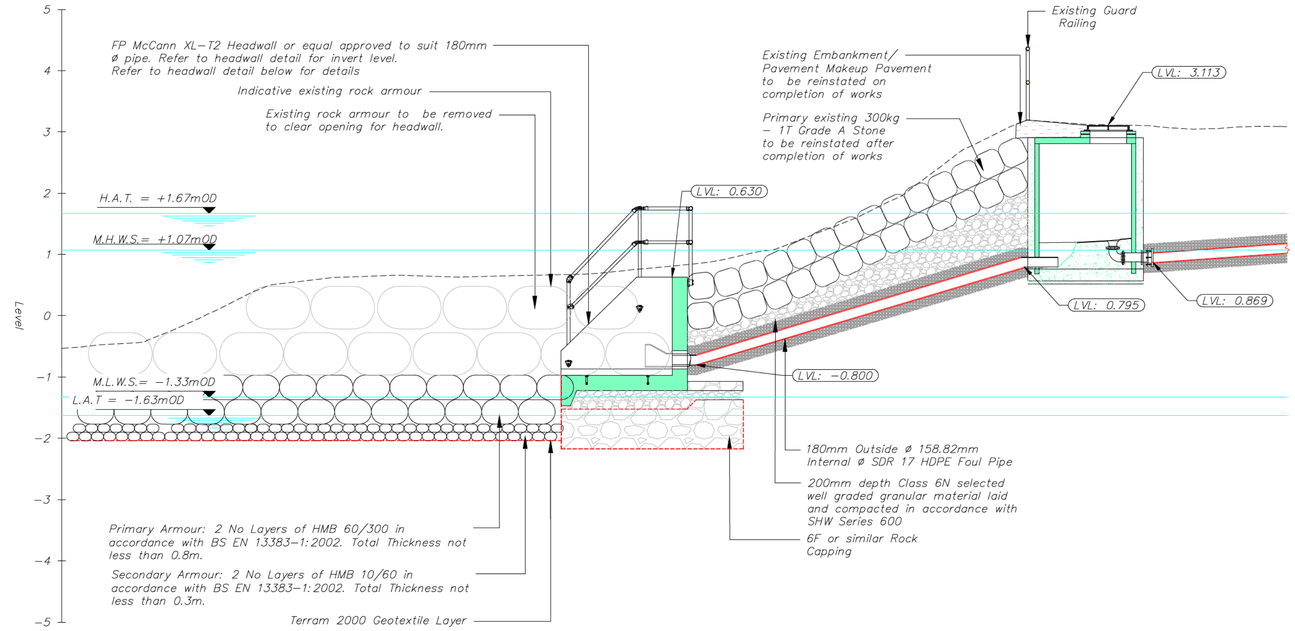
Rev.	Date	By	Check	Details	Appr.
P01	13/12/24	DBC	PMM	First Issue	CD
P02	18/12/24	DBC	PMM	Drawing revised. Levels revised to chart datum	CD
P03	08/01/25	DBC	PMM	Drawing revised. Notes amended. Stand off manhole chamber revised	CD
P04	03/03/25	KMC	PMM	Sections Updated	CD
P05	14/03/25	DBC	PMM	Drawing Updated	CD
P06	23/05/25	KMC	PMM	Drawing Updated	CD

A – A – Longsection
Scale: H 1:100, V 1:100. Datum: –5.000



Chainage	00.000	01.000	02.000	03.000	04.000	05.000	06.000	07.000	08.000	09.000	10.000	11.000	12.000	13.000	14.000	15.000	16.000	17.000	18.000	19.000	20.000
Existing Levels	–0.533	–0.454	–0.152	0.329	0.573	0.644	0.645	0.645	0.668	0.717	0.814	0.962	1.220	1.610	2.174	2.844	3.177	3.114	3.076	3.065	3.088

Notes

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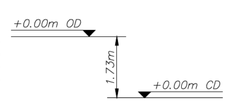
6. Foul Package Treatment Plant 1 (FPTP) to be a Turley Bros 7.3 PE Aero SBR Waste Water Treatment Plant
7. Linemarking and Fencing omitted for clarity
8. Refer to drawing DN20–DCL–ZZ–ZZ–SH–C–0354 & 0356 MH Schedule for details on foul inverts and cover levels.

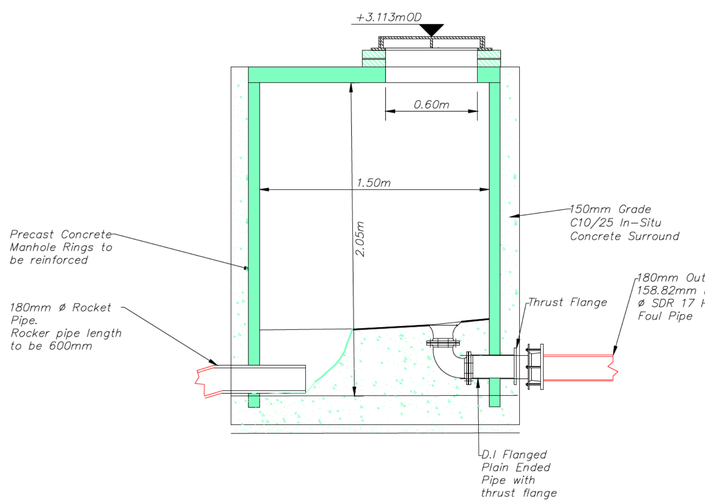
General Notes

1. All levels in metres to Ordnance Datum (OD).
2. All dimensions in mm unless noted otherwise.
3. Larne Chart Datum (CD) is 1.73m below Ordnance Datum (OD).
4. Proposed invert level –0.800mOD of headwall outfall is equal to 0.930m Chart Datum.

Tide Levels CD:

HAT	= +1.67m OD
MHWS	= +1.07m OD
MLWS	= –1.33m OD
LAT	= –1.63m OD





Rising Main Discharge Stand Off Manhole
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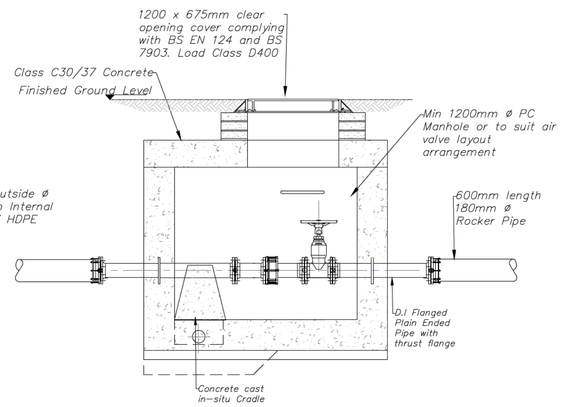
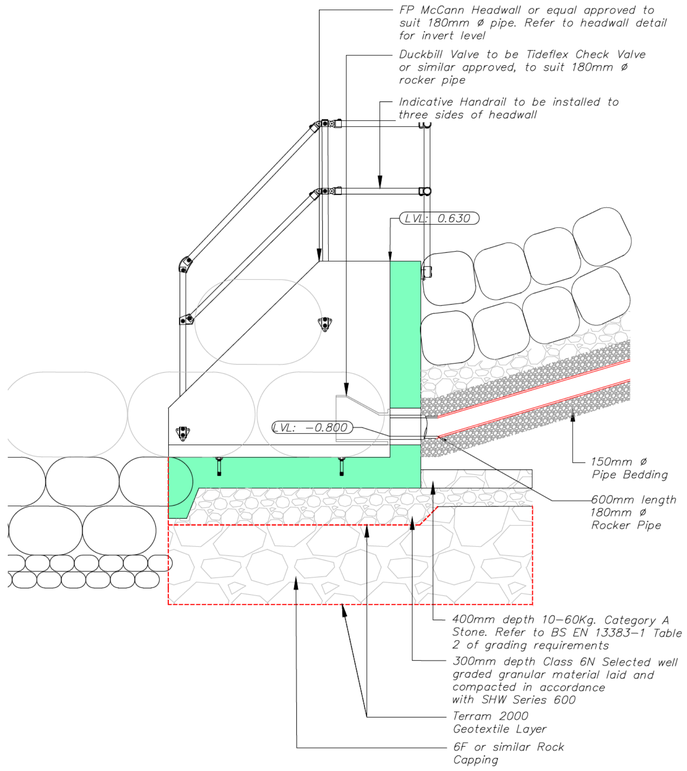


Air Valve Chamber
Scale 1:25



Proposed Headwall Outfall
Scale 1:25

GRAHAM

Project Title:

Point of Entry – Larne

(DC Project Ref: 201101)

Drawing Title:

Foul Outfall Route
Section and Chamber Details

Client/Architect:	[redacted]	Status:	S4
Drawn by:		Date:	Dec 2024
Checked by:		Scales:	As shown
Approved by:		Sheet Size:	A1

Drawing Number:

Project Number:	Orig.	Zone.	Level.	Type.	Disc.	Number.	Revision:
DN20	DCL	ZZ	ZZ	DR	C	0365	P06

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