## SCHEDULE A: Water Framework Directive (WFD) Assessment - Surface Water Impact Scoping

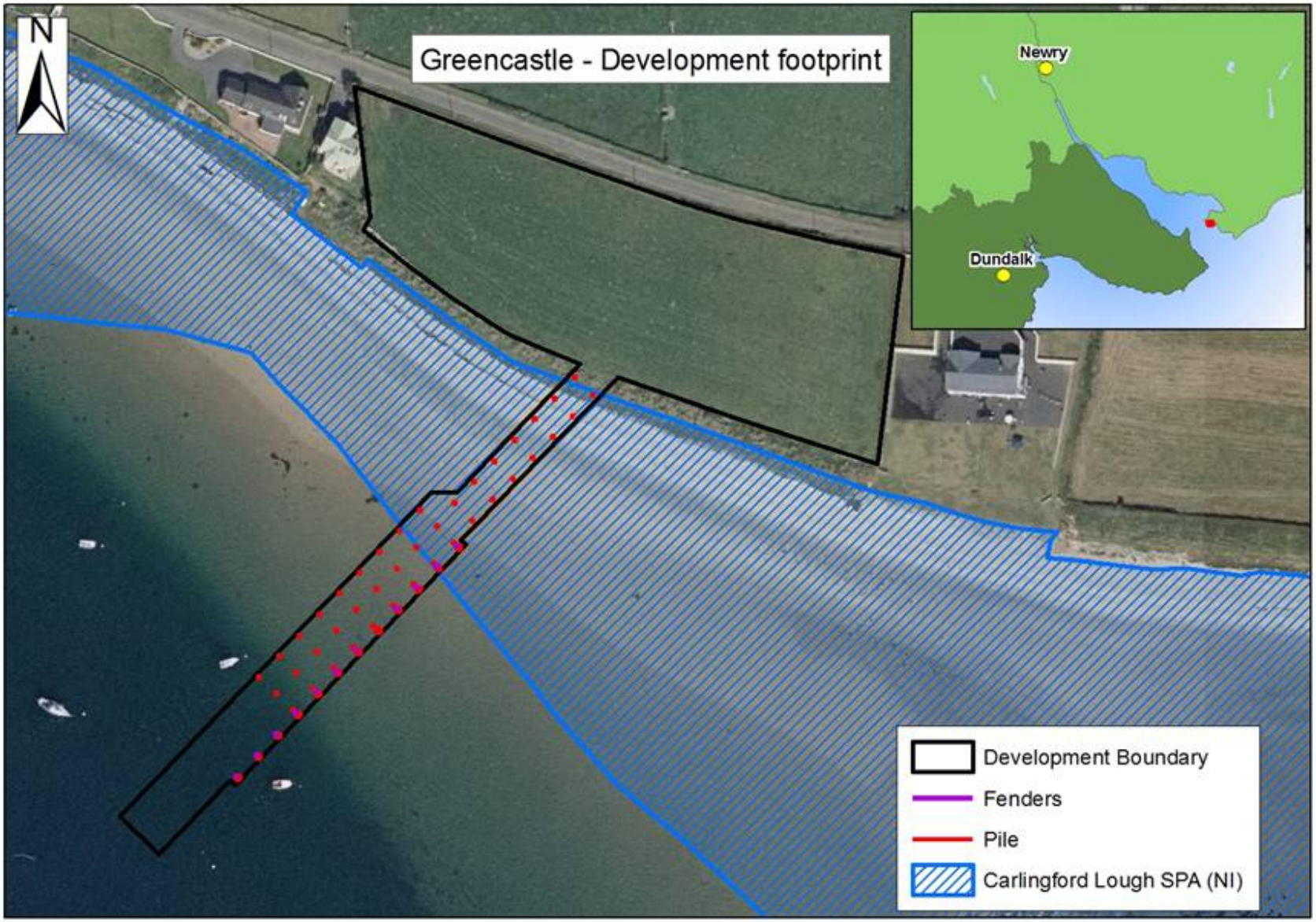
**Project Component Data Sheet**

| | | |
|---|---|---|
| **LOCATION** | **Grid Reference** | 324651 , 311587 |
| | **Map Reference** | 50k raster – Tile OSNI54 |
| | **Waterbody Name** | Carlingford Lough |
| | **WFD Waterbody ID** | GBNIIE6NB030 |

| | | |
|---|---|---|
| **WATER COURSE** | **Designations (within 1 km of component)** | Carlingford Shore SAC and Carlingford Lough SPA (ROI) and Carlingford Lough SPA (NI) |
| | **WFD Status (Objective)** | Moderate (Restore 2021) |
| | **FFD Class. (Salmonid/Cyprinid)** | N/A |
| | **Abstractions in vicinity** | Yes |

| | **WFD Element** | **Current Status** | **Assessed Post Works Status** |
|---|---|---|---|
| **WFD ASSESSMENT** | **Morphology** | Good | Good |
| | **Specific Pollutants** | Fail | Fail |
| | **Protected Area** | At least good | At least good |
| | **Ecological Status** | Moderate | Moderate |
| | **Chemical Status** | Pass | Pass |
| | **Phytoplankton** | Good | Good |
| | **Macroalgae** | High | High |
| | **Angiosperms** | High | High |
| | **Invertebrates** | Good | Good |
| | **Oxygen** | High | High |
| | **Nutrients** | Moderate | Moderate |
| | **Red List Alien Species** | Present | Present |
| | | | |

SITE PHOTOGRAPH



| WFD ASSESSMENT | COMPONENT TYPE | | Does the component comply with WFD Objectives 1, 2, 3 & 4? | | |
|---|---|---|---|---|---|
| | **Component ID:** | Greencastle_1 | **No** | | Do not proceed or complete Article 4.7 assessment. |
| | **Component Type:** | Slipway | **Yes (Justification provided)** | | Proceed after NIEA agreement. |
| | **Component Description,** | *70m x 15m slipway* | **Yes, with mitigation** | **X** | Complete schedule B. |
| | **Component ID:** | Greencastle_2 | **No** | | Do not proceed or complete Article 4.7 assessment. |
| | **Component Type:** | Pier | **Yes (Justification provided)** | | Proceed after NIEA agreement. |
| | **Component Description,** | *58m long x 10m wide suspended pier* | **Yes, with mitigation** | **X** | Complete schedule B. |
| | **Component ID:** | Greencastle_3 | **No** | | Do not proceed or complete Article 4.7 assessment. |
| | **Component Type:** | Hardstanding area | **Yes (Justification provided)** | | Proceed after NIEA agreement. |
| | **Component Description,** | *Area of hardstanding to accommodate off-road traffic queuing* | **Yes, with mitigation** | **X** | Complete schedule B. |
| | **Component ID:** | Greencastle_4 | **No** | | Do not proceed or complete Article 4.7 assessment. |
| | **Component Type:** | Portacabin | **Yes (Justification provided)** | | Proceed after NIEA agreement. |
| | **Component Description,** | *Use of ancillary porta-cabin for ticket sales and toilet facilities* | **Yes, with mitigation** | **X** | Complete schedule B. |

## SCHEDULE B: Details of Mitigation Required to Comply with Water Framework Directive (WFD) Objectives

| Scheme Component | Objective 1:<br>To prevent deterioration in the ecological status of the water body. | Objective 2:<br>To prevent the introduction of impediments to the attainment of Good WFD status for the water body. | Objective 3:<br>To ensure that the attainment of the WFD objectives for the water body are not compromised. | Objective 4:<br>To ensure the achievement of the WFD objectives in other water bodies within the same catchment are not permanently excluded or compromised. |
|---|---|---|---|---|
| | **Describe mitigation required to meet Objective 1:** | **Describe mitigation required to meet Objective 2:** | **Describe mitigation required to meet Objective 3:** | **Describe mitigation required to meet Objective 4:** |
| *67m long slipway with twelve tubular piles (Greencastle_1)*<br><br>*58m long x 10m wide suspended pier (Greencastle_2)* | Mitigation has already been undertaken during the design phase of the scheme to minimise the potential impact of the project on the water environment. Design of both slipways has been undertaken to result in least possible loss of habitat, particularly those designated under the Habitats Directive and Birds Directive, and disruption to the coastal processes has been minimised. The pier and slipway at Greencastle has been designed so that it is elevated above the existing beach and intertidal zone within the SPA. This design made use of piles, which result in a much lower loss of habitat and disruption to the coastal processes in comparison to direct construction of a pier and slipway in the intertidal area.<br>Mitigation during construction will include the employment of best practice techniques and adherence to Pollution Prevention Guidelines (PPGs), in particular PPG 5 Works in, near or liable to affect | As works will be taking place within the water body, silt disturbance will be mitigated by the timing of the works to coincide with the tidal range. Any release of sediments will be dispersed through the strong tidal currents where unavoidable.<br><br>Any oils, fuels and chemicals required for the works will be stored in compliance with *PPG 2*. Valves, trigger guns and bowsers will be stored within secure facilities to protect from unauthorised interference.<br><br>Fuel re-filling will be sited at the most suitable location away from drains or moving water on an impermeable surface.<br><br>A contingency plan will be implemented in compliance with *PPG 21* in the event of accident or emergency.<br>On the basis of the minimal direct impact (through loss of habitat) and limited indirect impact (through negligible changes in the coastal process) the need for mitigation in terms of the morphology is not required and the development will not result in a deterioration in the morphological status of | The slipway results in very minor habitat loss in the Carlingford Lough SPA. No qualifying features are directly impacted and the development will not compromise the attainment of the protected area objectives.<br><br>Computational modelling has illustrated that the impact of the physical structure on the coastal processes and the marine morphology is negligible. | Mitigation measures implemented throughout the design, construction and operational phase of this project will ensure negligible residual impact from the proposal on this water body, and furthermore will prevent any knock-on detriment to the water bodies discharging to the Lough |

| Scheme Component | Objective 1:<br>To prevent deterioration in the ecological status of the water body. | Objective 2:<br>To prevent the introduction of impediments to the attainment of Good WFD status for the water body. | Objective 3:<br>To ensure that the attainment of the WFD objectives for the water body are not compromised. | Objective 4:<br>To ensure the achievement of the WFD objectives in other water bodies within the same catchment are not permanently excluded or compromised. |
|---|---|---|---|---|
| | **Describe mitigation required to meet Objective 1:** | **Describe mitigation required to meet Objective 2:** | **Describe mitigation required to meet Objective 3:** | **Describe mitigation required to meet Objective 4:** |
| | watercourses. Control measures for sediment, concrete and fuel oil and other chemicals are detailed in the ES including sediment control plan, the use of pre-cast units for sections of the slipway under water and appropriate handling and management of concrete, fuel oils and chemicals.<br><br>These mitigation measures will be incorporated into the Construction Stage Environmental Management Plan (CEMP). | the Carlingford Lough water body.<br><br>As concrete is to be used to construct the pier and slipway, careful control measures will be implemented with regard to mixing, water re-use and run-off and washing/cleaning of plant to minimise risk of spillage and pollution. Given the alkalinity of concrete it is important to ensure it. In addition those sections of the slipway below high water mark will be installed using pre-cast concrete units and stitched together using concrete with underwater additives to prevent segregation. | | |

| Scheme Component | Objective 1:<br>To prevent deterioration in the ecological status of the water body. | Objective 2:<br>To prevent the introduction of impediments to the attainment of Good WFD status for the water body. | Objective 3:<br>To ensure that the attainment of the WFD objectives for the water body are not compromised. | Objective 4:<br>To ensure the achievement of the WFD objectives in other water bodies within the same catchment are not permanently excluded or compromised. |
|---|---|---|---|---|
| | **Describe mitigation required to meet Objective 1:** | **Describe mitigation required to meet Objective 2:** | **Describe mitigation required to meet Objective 3:** | **Describe mitigation required to meet Objective 4:** |
| *Area of hardstanding to accommodate off-road traffic queuing (Greencastle_3)* | Mitigation during construction will include the employment of best practice techniques and adherence to Pollution Prevention Guidelines (PPGs), in particular PPG 5 Works in, near or liable to affect watercourses. Control measures for sediment, concrete and fuel oil and other chemicals are detailed in the ES including sediment control plan, the use of pre-cast units for sections of the slipway under water and appropriate handling and management of concrete, fuel oils and chemicals.<br><br>These mitigation measures will be incorporated into the Construction Stage Environmental Management Plan (CEMP). | The works will be taking place adjacent to the water body, and on an area of existing stone hard standing therefore sediment input to the Lough shall not represent a risk.<br><br>Any oils, fuels and chemicals required for the works will be stored in compliance with *PPG* 2. Valves, trigger guns and bowsers will be stored within secure facilities to protect from unauthorised interference.<br>A contingency plan will be implemented in compliance with *PPG 21* in the event of accident or emergency.<br>In relation to concrete careful control measures will be implemented with regard to mixing, water re-use and run-off and washing/cleaning of plant to minimise risk of spillage and pollution. | The WFD objective requires that the status of the water body improved to at least good by 2021. The elements that are causing the water body to fail include nutrients and specific pollutants. The development will not increase chemical inputs to the Lough as an oil interceptor and percolation areas will be used to treat surface run-off will prevent any fuel oils or chemicals from the hardstanding areas discharging to the Lough.<br><br>Good practice employed during construction and operation in terms of chemical storage, refuelling and fuel bunded areas will minimise any risk to the water body. | Mitigation measures implemented throughout the design, construction and operational phase of this project will ensure negligible residual impact from the proposal on this water body, and furthermore will prevent any knock-on detriment to the water bodies discharging to the Lough |

| Scheme Component | Objective 1:<br>To prevent deterioration in the ecological status of the water body. | Objective 2:<br>To prevent the introduction of impediments to the attainment of Good WFD status for the water body. | Objective 3:<br>To ensure that the attainment of the WFD objectives for the water body are not compromised. | Objective 4:<br>To ensure the achievement of the WFD objectives in other water bodies within the same catchment are not permanently excluded or compromised. |
|---|---|---|---|---|
| | **Describe mitigation required to meet Objective 1:** | **Describe mitigation required to meet Objective 2:** | **Describe mitigation required to meet Objective 3:** | **Describe mitigation required to meet Objective 4:** |
| *Use of ancillary porta-cabin for ticket sales and toilet facilities (Greencastle_4)* | Mitigation during construction will begin with the employment of best practice techniques and adherence to Pollution Prevention Guidelines (PPGs), in particular *PPG 5 Works in, near or liable to affect watercourses*. These mitigation measures will be incorporated into the Construction Stage Environmental Management Plan (EMP). | Any oils, fuels and chemicals required for the works will be stored in compliance with *PPG* 2. Valves, trigger guns and bowsers will be stored within secure facilities to protect from unauthorised interference.<br>A contingency plan will be implemented in compliance with *PPG 21* in the event of accident or emergency.<br><br>If concrete is to be used, careful control measures will be implemented with regard to mixing, water re-use and run-off and washing/cleaning of plant to minimise risk of spillage and pollution. | The construction of the porta-cabin and associated services will not result in habitat loss in the associated designations.<br><br>The WFD objective requires that the status of the water body improves to at least good by 2021. The elements that are causing the water body to fail include nutrient (Winter Dissolved Inorganic Nitrogen [WDIN]). The development will not increase nutrient input to the Lough. During construction, foul waste will be tankered and disposed of appropriately off site. During operation, sewage will be diverted through an underground septic tank before discharged to a percolation area. There are no associated outlets or direct discharges to the water body. | Mitigation measures implemented throughout the design, construction and operational phase of this project will ensure negligible residual impact from the proposal on this water body, and furthermore will prevent any knock-on detriment to the water bodies discharging to the Lough |

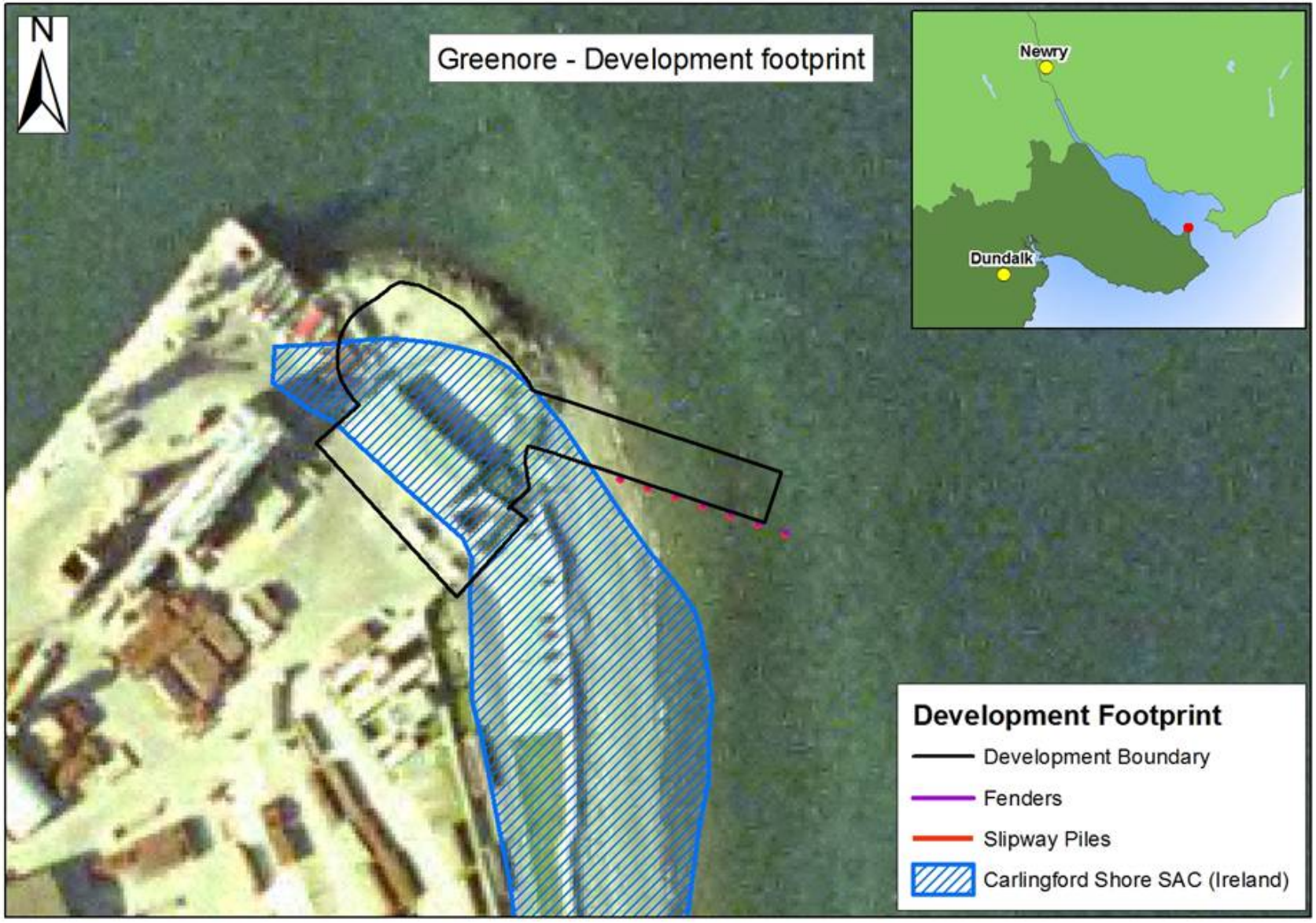
## SCHEDULE A: Water Framework Directive (WFD) Assessment - Surface Water Impact Scoping

| Project Component Data | | |
|---|---|---|
| LOCATION | **Grid Reference** | 322468 , 311043 |
| | **Map Reference** | 50k raster – Tile OS3230 |
| | **Waterbody Name** | Carlingford Lough |
| | **WFD Waterbody ID** | GBNIIE6NB030 |

| | | |
|---|---|---|
| WATER COURSE | **Designations (within 1 km of component)** | Carlingford Shore SAC and Carlingford Lough SPA (ROI) and Carlingford Lough SPA (NI) |
| | **WFD Status (Objective)** | Moderate (Restore 2021) |
| | **FFD Class. (Salmonid/Cyprinid)** | N/A |
| | **Abstractions in vicinity** | Yes |

| WFD ASSESSMENT | **WFD Element** | **Current Status** | **Assessed Post Works Status** |
|---|---|---|---|
| | **Morphology** | Good | Good |
| | **Specific Pollutants** | Fail | Fail |
| | **Protected Area** | At least good | At least good |
| | **Ecological Status** | Moderate | Moderate |
| | **Chemical Status** | Pass | Pass |
| | **Phytoplankton** | Good | Good |
| | **Macroalgae** | High | High |
| | **Angiosperms** | High | High |
| | **Invertebrates** | Good | Good |
| | **Oxygen** | High | High |
| | **Nutrients** | Moderate | Moderate |
| | **Red List Alien Species** | Present | Present |

AERIAL VIEW SITE PHOTOGRAPH



| WFD ASSESSMENT | COMPONENT TYPE | | Does the component comply with WFD Objectives 1, 2, 3 & 4? | | |
|---|---|---|---|---|---|
| | **Component ID:** | Greenore_1 | **No** | | Do not proceed or complete Article 4.7 assessment. |
| | **Component Type:** | Slipway | **Yes (Justification provided)** | | Proceed after NIEA agreement. |
| | **Component Description,** | *60m long slipway with 7 tubular piles* | **Yes, with mitigation** | **X** | Complete schedule B. |
| | **Component ID:** | Greenore_2 | **No** | | Do not proceed or complete Article 4.7 assessment. |
| | **Component Type:** | Hardstanding area | **Yes (Justification provided)** | | Proceed after NIEA agreement. |
| | **Component Description,** | *Area of hardstanding to accommodate off-road traffic queuing* | **Yes, with mitigation** | **X** | Complete schedule B. |
| | **Component ID:** | Greenore_3 | **No** | | Do not proceed or complete Article 4.7 assessment. |
| | **Component Type:** | Porta-cabin | **Yes (Justification provided)** | | Proceed after NIEA agreement. |
| | **Component Description,** | *Use of ancillary porta-cabin for ticket sales and toilet facilities* | **Yes, with mitigation** | **X** | Complete schedule B. |

## SCHEDULE B: Details of Mitigation Required to Comply with Water Framework Directive (WFD) Objectives

| **Scheme Component** | **Objective 1:**<br>**To prevent deterioration in the ecological status of the water body.** | **Objective 2:**<br>**To prevent the introduction of impediments to the attainment of Good WFD status for the water body.** | **Objective 3:**<br>**To ensure that the attainment of the WFD objectives for the water body are not compromised.** | **Objective 4:**<br>**To ensure the achievement of the WFD objectives in other water bodies within the same catchment are not permanently excluded or compromised.** |
|---|---|---|---|---|
| | **Describe mitigation required to meet Objective 1:** | **Describe mitigation required to meet Objective 2:** | **Describe mitigation required to meet Objective 3:** | **Describe mitigation required to meet Objective 4:** |
| *60m long slipway with seven tubular piles (Greenore_1)* | Mitigation has already been undertaken during the design phase of the scheme to minimise the potential impact of the project on the water environment. Design of both slipways has been undertaken to result in least possible loss of habitat, particularly those designated under the Habitats Directive and Birds Directive, and disruption to the coastal processes has been minimised. At Greenore the design has been optimised to result in the least possible loss of SAC habitat and the slipway has been aligned with the natural beach gradient over the main tidal range resulting in minimal impedance of tidal flows. | As works will be taking place within the water body, silt disturbance will be mitigated by the timing of the works to coincide with the tidal range. Any release of sediments will be dispersed through the strong tidal currents where unavoidable.<br><br>Any oils, fuels and chemicals required for the works will be stored in compliance with *PPG 2*. Valves, trigger guns and bowsers will be stored within secure facilities to protect from unauthorised interference.<br><br>Fuel re-filling will be sited at the most suitable location away from drains or moving water on an impermeable surface. | The slipway results in very minor habitat loss in the Carlingford Lough SAC, but the footprint is relatively small and the area is already part of the existing Greenore Harbour. No qualifying features are directly impacted and the development will not compromise the attainment of the protected area objectives.<br><br>Computational modelling has illustrated that the impact of the physical structure on the coastal processes and the marine morphology is negligible. | Mitigation measures implemented throughout the design, construction and operational phase of this project will ensure negligible residual impact from the proposal on this water body, and furthermore will prevent any knock-on detriment to the water bodies discharging to the Lough |

| Scheme Component | Objective 1:<br>To prevent deterioration in the ecological status of the water body. | Objective 2:<br>To prevent the introduction of impediments to the attainment of Good WFD status for the water body. | Objective 3:<br>To ensure that the attainment of the WFD objectives for the water body are not compromised. | Objective 4:<br>To ensure the achievement of the WFD objectives in other water bodies within the same catchment are not permanently excluded or compromised. |
|---|---|---|---|---|
| | **Describe mitigation required to meet Objective 1:** | **Describe mitigation required to meet Objective 2:** | **Describe mitigation required to meet Objective 3:** | **Describe mitigation required to meet Objective 4:** |
| | Mitigation during construction will include the employment of best practice techniques and adherence to Pollution Prevention Guidelines (PPGs), in particular PPG 5 Works in, near or liable to affect watercourses. Control measures for sediment, concrete and fuel oil and other chemicals are detailed in the ES including sediment control plan, the use of pre-cast units for sections of the slipway under water and appropriate handling and management of concrete, fuel oils and chemicals.<br><br>These mitigation measures will be incorporated into the Construction Stage Environmental Management Plan (CEMP). | A contingency plan will be implemented in compliance with *PPG 21* in the event of accident or emergency.<br><br>On the basis of the minimal direct impact (through loss of habitat) and limited indirect impact (through negligible changes in the coastal process) the need for mitigation in terms of the morphology is not required and the development will not result in a deterioration in the morphological status of the Carlingford Lough water body. | | |

| Scheme Component | Objective 1:<br>To prevent deterioration in the ecological status of the water body. | Objective 2:<br>To prevent the introduction of impediments to the attainment of Good WFD status for the water body. | Objective 3:<br>To ensure that the attainment of the WFD objectives for the water body are not compromised. | Objective 4:<br>To ensure the achievement of the WFD objectives in other water bodies within the same catchment are not permanently excluded or compromised. |
|---|---|---|---|---|
| | **Describe mitigation required to meet Objective 1:** | **Describe mitigation required to meet Objective 2:** | **Describe mitigation required to meet Objective 3:** | **Describe mitigation required to meet Objective 4:** |
| *Area of hardstanding to accommodate off-road traffic queuing (Greenore_2)* | Mitigation during construction will include the employment of best practice techniques and adherence to Pollution Prevention Guidelines (PPGs), in particular PPG 5 Works in, near or liable to affect watercourses. Control measures for sediment, concrete and fuel oil and other chemicals are detailed in the ES including sediment control plan, the use of pre-cast units for sections of the slipway under water and appropriate handling and management of concrete, fuel oils and chemicals.<br><br>These mitigation measures will be incorporated into the Construction Stage Environmental Management Plan (CEMP). | The works will be taking place adjacent to the water body, and on an area of existing stone hard standing therefore sediment input to the Lough shall not represent a risk.<br><br>Any oils, fuels and chemicals required for the works will be stored in compliance with *PPG* 2. Valves, trigger guns and bowsers will be stored within secure facilities to protect from unauthorised interference.<br>A contingency plan will be implemented in compliance with *PPG 21* in the event of accident or emergency.<br>In relation to concrete careful control measures will be implemented with regard to mixing, water re-use and run-off and washing/cleaning of plant to minimise risk of spillage and pollution. | The WFD objective requires that the status of the water body improved to at least good by 2021. The elements that are causing the water body to fail include nutrients and specific pollutants. The development will not increase chemical inputs to the Lough as an oil interceptor and percolation areas will be used to treat surface run-off will prevent any fuel oils or chemicals from the hardstanding areas discharging to the Lough.<br><br>Good practice employed during construction and operation in terms of chemical storage, refuelling and fuel bunded areas will minimise any risk to the water body. | Mitigation measures implemented throughout the design, construction and operational phase of this project will ensure negligible residual impact from the proposal on this water body, and furthermore will prevent any knock-on detriment to the water bodies discharging to the Lough |

| Scheme Component | Objective 1:<br>To prevent deterioration in the ecological status of the water body. | Objective 2:<br>To prevent the introduction of impediments to the attainment of Good WFD status for the water body. | Objective 3:<br>To ensure that the attainment of the WFD objectives for the water body are not compromised. | Objective 4:<br>To ensure the achievement of the WFD objectives in other water bodies within the same catchment are not permanently excluded or compromised. |
|---|---|---|---|---|
| | **Describe mitigation required to meet Objective 1:** | **Describe mitigation required to meet Objective 2:** | **Describe mitigation required to meet Objective 3:** | **Describe mitigation required to meet Objective 4:** |
| *Use of ancillary porta-cabin for ticket sales and toilet facilities (Greenore_3)* | Mitigation during construction will begin with the employment of best practice techniques and adherence to Pollution Prevention Guidelines (PPGs), in particular *PPG 5 Works in, near or liable to affect watercourses*. These mitigation measures will be incorporated into the Construction Stage Environmental Management Plan (EMP). | Any oils, fuels and chemicals required for the works will be stored in compliance with *PPG* 2. Valves, trigger guns and bowsers will be stored within secure facilities to protect from unauthorised interference.<br>A contingency plan will be implemented in compliance with *PPG 21* in the event of accident or emergency.<br><br>If concrete is to be used, careful control measures will be implemented with regard to mixing, water re-use and run-off and washing/cleaning of plant to minimise risk of spillage and pollution. | The construction of the porta-cabin and associated services will not result in habitat loss in the associated designations.<br><br>The WFD objective requires that the status of the water body improves to at least good by 2021. The elements that are causing the water body to fail include nutrient (Winter Dissolved Inorganic Nitrogen [WDIN]). The development will not increase nutrient input to the Lough. During construction, foul waste will be tankered and disposed of appropriately off site. During operation, sewage will be diverted through an underground septic tank before discharged to a percolation area. There are no associated outlets or direct discharges to the water body. | Mitigation measures implemented throughout the design, construction and operational phase of this project will ensure negligible residual impact from the proposal on this water body, and furthermore will prevent any knock-on detriment to the water bodies discharging to the Lough. |