

Wexford to Curracloe Greenway



Outline Construction Method Statement & Environmental Management Plan

Book No. 7

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Wexford County Council

Wexford to Curracloe Greenway

Outline Construction Method Statement

&

Environmental Management Plan

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Key:

Proposed 10.7km long Greenway:

Leg 1-Ferrybank Section	Ch0m	-Ch3,700m	3.7km
Leg 2-Slob Section	Ch3,700m	-Ch7,100m	3.4km
Leg 3-The Raven Section	Ch7,100m	-Ch10,700m	3.6km
Ferrybank Loop	An additional 3.5km		
The Raven Loop	An additional 1.4km		

Winter Closure for Construction Phase	Ch 800m	-Ch7,100m
Winter Closure Period for Greenway Users	Ch3,700m	-Ch7,100m

Special Protection Area (SPA)

Proposed Natural Habitat Area (pNHA)

Special Area of Conservation (SAC)

Wexford County Council (WCC)

National Parks and Wildlife Service (NPWS)

Land in the Wexford Harbour and Slob pNHA that were reclaimed in the 19th Century and are contained within sea-protection walls (The slob)

Natura Impact Statement (NIS)

Ecological Clerk of Works (ECoW)

1. INTRODUCTION

The purpose of this Outline Construction Method Statement and Environmental Management Plan is to identify the impacts on the environment during the construction and operational phases of the proposed 10.7km long greenway from Wexford town to The Raven Wood and Culletons Gap Beach near Curracloe Village, the additional 1.4km section on The Raven Loop and an additional 3.5km section on the Ferrybank Loop.

This report provides an environmental management system to be used during the pre-construction, construction, operational and decommissioning phases of the proposed development and provides mitigating measures to ensure works are carried out in such a manner so as to ensure that any potential impacts that may occur on the environment are eliminated or minimised to an acceptable level.

This report identifies key planning, environmental and construction issues that must be adhered to and delivered during the construction and operational phases.

The most sensitive ecological consideration on this project is the Greenland White-fronted Goose and a range of measures are proposed to mitigate the identified risk to this scarce winter visitor to the Wexford North Slob. A third of the proposed route passes along the edge of the Wildfowl Reserve and Slob. The hen harrier and natterjack toad are also found adjacent or near the proposed route and are ecologically sensitive.

A central 3.4km section of the proposed greenway will be closed annually from September 15 to April 15 each year to protect the Greenland white-fronted goose flocks. This will effectively close this part of the proposed greenway for seven months annually. Construction works may not occur on a central 6.1km section of the greenway during this period also. Construction traffic will be prohibited from entering the Wexford Harbour and Slob pNHA areas during this period also. The prohibition period includes a 2 week buffer to the expected migratory period of the Greenland white-fronted geese.

This will be a working document and should the project proceed, the document will be updated with any planning conditions and amended as the project progresses.

1.1. Scope of the Outline Construction Method Statement

This report assesses the temporary and ancillary works associated with the construction and operational phases of the development. It outlines the mitigation and monitoring measures required to ensure the project is completed in the appropriate manner.

1.2. Key Environmental Risks

Refer to the Natura Impact Statement (NIS) for this project for full details on the ecological risks. The key environmental and ecological risks are as follows:

Ecological/Environmental Risk	Mitigation Requirement	Risk period
Greenland Geese at the Wexford Harbour and slob SPA and pNHA -Reduction in population due to reduced feeding if significantly disturbed by people or dogs. (Ref. NIS Section 6.1.4)	Protected rare species –Completely prevent construction and user access to this section greenway in the overwintering period.	Annually September 15- April 15
Hen harriers in a small pocket of land at Burgess on the Slaney Valley SAC -Reduction in population due reduced feeding if significantly disturbed by people or dogs. (Ref. NIS Section 6.1.2)	Protect Annex 1 Species- Prevent access to this section during construction of the greenway during breeding season.	September 15- April 15 (Construction or Maintenance not allowed)
	Provide visual barrier from people and dogs on flight path	On-going during use.
Other Birds at the Wexford Wildfowl Reserve including other geese -Reduction in population at this site due reduced feeding if significantly disturbed by people or dogs. (Ref. NIS Section 6.1.4.)	Protect bird populations – Provide visual shield from people and dogs using the greenway at NIS identified locations. Prevent people and dogs from accessing North Slob from greenway. Prevent people and dogs from accessing the seawall.	All year
Natter jack Toad at The Raven –Toad could be trodden on by people. Nocturnal.	Avoid Area- Greenway does not enter this section of The Raven Wood. Discourage people from straying into this section of The Raven by providing a Loop Trail at The Raven	All year
Mammals -Otters currently traverse the sea wall at certain locations to feed on the foreshore and slob- Risk of proposed fencing blocking feeding paths.-No longer term effects from the construction process (Ref. NIS Section 6.1.3). -Bats (Ref. Section 3.7)	Provide mammal access shelf on the culverts and at other locations further to mammal survey. Provide raised boardwalk at Burgess SAC to provide mammal passage underneath. Carry out a bat survey prior to commencement	All year

Ecological/Environmental Risk	Mitigation Requirement	Risk period
<p>Sea Wall</p> <p>-Disturbance to certain birds.</p> <p>(Ref. NIS Section 6.1.4)</p>	<p>Prevent people or dogs climbing onto seawall by providing a 1.4m fence on inland side and a 1.8m fence on the seaward-this makes it extremely difficult to access the sea wall.</p>	<p>All year</p>
<p>Changes to Existing Drainage</p> <p>-Possibility of flooding.</p> <p>-Possibility of siltation from construction works.</p>	<p>Maintain existing drainage channels. The majority of route is in the slob which is below sea level and is drained via pumps to the sea. The greenway will not have an effect on this system. Attenuation not required.</p>	<p>All year</p>
<p>Bird Nesting Season</p> <p>–Legal requirements not to cut or destroy nests in hedge rows from March to August.</p> <p>Wildlife Acts 1976 (as amended)</p>	<p>Ground and hedge bird nest survey to be carried out immediately prior to construction to identify nest locations. Seek ecological advice if nests identified.</p>	<p>1 March to 31 August during construction</p>
<p>Protected Plant Species</p> <p>–Requirement to protect protected plant species</p>	<p>Survey to be carried out prior to construction to identify if any protected plant species are present. Seek advice from County Botanist if indicated.</p>	<p>Once prior to commencement</p>
<p>Invasive Species</p> <p>–Requirement not to spread invasive species along route or import/export to sites via lorry wheels or spoil transport. None identified on site to date.</p>	<p>Survey to be carried out prior to construction to identify if certain invasive species are present. Seek advice if indicated.</p>	<p>Once prior to commencement</p>
<p>Heritage and Archaeological Considerations</p> <p>– North Slob Pump house WCC1245 & 15703805</p>	<p>No additional risk identified.</p> <p>No greenway works will occur near the pump house.</p>	<p>N/A</p>

1.3. Project Description

The proposed 10.7km long macadam surfaced greenway will be a shared cycleway and footway which will be a safe and attractive premium walking and cycle route that caters mostly for recreational, tourist and family users.

The proposed greenway will connect Wexford Town with Culleton's Gap beach and The Raven Nature Reserve. It will provide alternative pedestrian and cycling connections with the fringe of Wexford Town. The proposed route would be assigned a Sports Ireland Trails class 1 trail with a grading of multi-use.

The section of the greenway that runs through the Wexford Harbour Slob Special Area of Protection (SPA) and proposed Natural Habitat Area (pNHA) (Chainage 3,700m-7,100m) will be closed from 15 September to 15 April annually to all users to protect the Greenland white-fronted geese. This period includes a two week buffer from the anticipated arrival and departure dates. For this reason and to provide options to users, two looped routes will be provided, one at each trail head.

The Ferrybank Trail head looped route will be 6.1km long in total. This loop will consist of 2.5km on the proposed greenway, with 1.5km on new track adjacent to a quiet local road called the Ardcavan Lane, a 1.4km new section to the rear of industrial estate and then onto a 1.6km existing footpath and proposed cycle path on the R741. 600m will be on the Ardcavan Lane. This loop will be open all year around and generally during daylight hours.

The Raven Trail head looped route is an existing hard core trail and the loop is 6.9km long in total. Although 1.3km does not coincide with the proposed greenway, it is proposed to upgrade the entire hard core Raven loop to a macadam surface. This is open all year around. Signage and fencing will be erected in consultation with NPWS, the site owners, to encourage users to stay on the loop rather than traverse the sand dunes onto the beach or to go towards the southern tip of The Raven where the natter jack toads are found. There are a number of well used tracks across the dunes onto the beach and a boardwalk at the trail head to the beach at Culletons Gap. These tracks will be promoted as the main ways to access the beach. Mitigation measures will be taken if further tracks begin to open up.

In 2015 county Wexford received 221,000 visitors from overseas and 679,000 Irish resident visitors (source Failte Ireland Report). 66% of the overseas visitor trips were from April to September. It is anticipated that the proposed greenway will be appealing to many of these tourist and would attract additional tourists to Wexford.

County Wexford has a population of 149,722. Wexford town has a population of 20,188. The Ardcolm Electoral District at the Raven trail head has a population of 942 (CSO, April 2016). In addition there are 516 mobile homes and 124 holiday homes in the Raven area. It is anticipated that many local people would regularly use the greenway.

Between 1 and 6 February 2018 road traffic counters showed an average of 423 vehicles accessed the Raven Wood area per day, with this number doubling to 850 cars on the Sunday. It is estimated therefore based on 2 people per car that in excess of 800 people use the existing Raven trail daily throughout the year. This number probably increases in the summer.

The road connecting Wexford Town to the popular blue flag beaches at Ballinesker and White Gap and the Raven nature reserve is 13.7km long, with 8.1km from Fahys Cross to White gap being particularly narrow, twisty and busy with many dips. It is not safe for cycling or walking. During the summer period the last 1.8km section of road is turned into a one way system due to severe congestion.

The greenway has the potential to reduce a large number of car journeys from the town to Curracloe beach and the Raven in the busy summer period.

The project consists of the construction of the following:

- 4 No. secure people and dog proof access gates with 2,755m of paladin fencing to prevent access to the section of greenway in the Slob during the Greenland White-fronted Goose winter/spring season
- Construct 14.0km of tarmac path on scrub, grassland, farm access roads, adjacent to local roads and hardcore trail.
- 870m of timber screening with soil mounds
- 1 No. new car park with 25 spaces at Ardavan Lane
- 2 No. local road crossings
- 3 No. pedestrian crossings
- 2 No. raised timber viewing platforms.
- Information, directional and safety signage
- 3 No drainage culverts with Otter passage shelves
- 3 No. Additional fauna crossings as identified by the NIS.
- Maintenance and upgrade of existing land ditches and drainage.
- Various gates.

Construction works on the majority of the route will be limited to a 5 month window from 15 April -15 September.

1.4. Greenway Route Description

The proposed 10.7km greenway route site hugs the coast line around Wexford harbour and connects with an existing hard core path through the Raven Wood. The site will commence at the trail head located in the large car park at Ferrybank Bridge. The route proceeds east along grassed land on the shoreline, it then crosses Orchard Lane and connects with Ardcavan Lane where a new 25 space carpark will be provided.

After 3.5km the site route proceeds east along the access road to the Wildfowl Reserve as far as the visitor centre. This 1km access road to the reserve is designated a public road. It terminates at the visitor centre. This access road is a straight cul-de-sac with low traffic movements at regulation speeds of 30km/h.

The route continues along the base of the sea wall on the land side. 2.5km of the greenway passes through grassed and rough ground. 1.5km will incorporate existing farm paths. These farm paths will be converted to greenway use only. The Wildfowl Reserve lands are owned by Birdwatch Ireland and the NPWS. The remaining portion on the slob is a single agricultural landholding.

At the Raven Wood, the route connects to an existing 3.5km long trail through the wood and ends at the Culleton's Gap car park.

The proposed greenway has three public access points along its length. The mid-section of the route through the Wexford Harbour and Slob SPA will be closed for seven months each winter. This is due to a proposed mitigation measure against bird disturbance, in particular the Greenland white-fronted goose. An environmental education awareness program will be put in place to inform users of the national significance of these sites.

The greenway corridor has a typical width of 6m from boundary to boundary over circa. 3m will be tarmac with 1m-1.5m grass verges. Typically the temporary construction corridor will be 10m wide. Only localised site clearance and small civil engineering works will be required to provide a clear route for the proposed greenway. There will be five site access points on the 10.7km route.

1.5. Ferrybank Loop Description

The Ferrybank trail head looped route will be a 6.1km long loop in total. This loop will consist of 2.5km of the proposed greenway, 60m on a very quiet section of the Ardcavan Lane, a new 1.5km adjacent a quiet local road called the Ardcavan Lane, this will involve road widening, a short 1.4km section to the rear of an industrial estate and then onto a 1.6km existing footpath and proposed cycle path on both sides of the R741. This section will be open all year around generally during daylight hours. The proposed cycle path on the R741 will be completed by the Wexford County Council Area Office.

Two pedestrian/cycle crossings of the R741 will be provided and an additional pedestrian crossing at the road to the Ferrybank car park.

1.6. Raven Wood Loop Description

The Raven Trail head looped route exists as a hard core trail and is 6.9km long loop in total. The majority of this trail coincides with the proposed greenway. The entire loop will be upgraded to a macadam surface. This loop will continue to be open all year around. Signage, new banking and native planting as advised by the ecologist and fencing will be installed in consultation with NPWS, the site owners, to encourage users to stay on the loop rather than traverse the dunes onto the beach or to go towards the southern tip of The Raven where the little tern and the natter jack tern are found. There are a number of well used tracks across the dunes onto the beach as well as a boardwalk at the trail head to the beach at Culletons gap. These will be promoted as the main ways to access the beach. Measures will be taken if further tracks begin to open up.

Based on road traffic counters, it is estimated that 800 people use this trail daily in February with this user numbers doubling in summer. Further to discussions with the NPWS, this section of the trail may need to be closed to the public to allow for construction works.

1.7. Targets and Objectives

The proposed Wexford to Curracloe Greenway is designed to the Transport Infrastructure Ireland approved standards and will form part of the 2010 National Cycling Network. These specifications detail the materials, standards and codes of practice required.

The main environmental objectives are:

- Minimise the impact on the local environment and wildlife.
- Comply with all relevant water quality, environmental, heritage and wildlife legislation.
- Ensure works are complete in accordance with planning conditions.
- Work with the local community, landowners, the Wildfowl reserve and stakeholders to ensure disruption is kept to a minimum.
- The prevention of pollution, including missions to air, water and land.
- To prevent nuisance impacts including dust, noise and vibration.
- Protection of habitat areas and individual species.

- Remove only minimal amounts of hedge-mostly to allow passage through hedges.
- Maintain the existing drainage system.
- Ensure effective waste management.

The main targets are:

- To ensure there is no inference with feeding of the Greenland white fronted goose during the winter. The construction and use of section of greenway adjacent to the Wexford Harbour and Slob SPA is only to occur between 15 April and 15 September.
- To ensure there is no inference with breeding season of the hen harrier which occurs in the winter in the Slaney Valley SAC. Construction of the short section of greenway which passes through the SAC is the only to occur between 15 April and 15 September.
- To limit the visual impact from the greenway users on the other geese and birds at the Wildfowl Reserve and the North Slob.
- To maintain fauna paths. To prevent damage to flora adjacent to the construction site.
- To keep the entire site litter free and ensure proper waste management practices are followed.
- To maintain the existing ditches and drains.
- To prevent unauthorised access to or use of the site.
- To monitor the works and use of the site for adverse effects on the environment.
- To provide adequate environmental training and awareness for all project staff.
- To take measures to prevent camping, camp fires, graffiti, dog fouling and vandalism.
- To ensure appropriate storage and use of fuels and hazardous substances, including spills.
- To prevent the formation of additional tracks over the sand dunes or into the Southern tip where the natter jack toad is found at the Raven Woods. Prevent

track formation within 200m of the little tern colonies which are on the sand banks in Wexford harbour.

The environmental management targets for the project are as follows.

Targets	Measurable	Methodology	Responsibility	Timescale
Ensure no incidents of contamination to ground water from concrete works	Incidents, site inspections, quarterly audits, complaints	Procedures are to be developed and followed when working with concrete and washing out concrete chutes	Construction Manager / Greenways Manager	Construction, maintenance Phase
Ensure sediment on roads is cleared.	Raise needs for road cleaning duties during wet or busy periods	Ensure roads are swept and cleaned on a regular basis. Road conditions should be kept clean at all times.	Construction Manager	Construction Phase
Minimise waste production	Lean Construction Techniques, segregation more, reuse more (waste hierarchy)	Purchase less, ensure packaging is removed by supplier where possible and other materials reused & recycled	Construction Manager	Construction Phase
Prevent fuel and oil spillages from site activities. Bunds to be used.	Environmental Incidents, spills contained in bunds	Ensure that drip trays are used at all times under static plant, when refilling, & storing, ensure fuel storage areas are bunded.	Construction Manager	Construction Phase
Ensure correct disposal of all hazardous wastes	Waste segregation, waste costs	All hazardous wastes to be disposed as per legislation and contract requirements	Construction Manager	Construction Phase
Ensure no incidents of pollution to water.	Water monitoring and sampling activities. Environmental Incident.	Sediment controls to be used, no waters to be discharged to any controlled waters or drainage systems without approval.	Construction Manager	Construction Phase
Lower emissions of dust, smoke and fumes during works	Air quality, dust particle increase	Ensure all equipment is well serviced and maintained. Switch off equipment when not in use. Use dust suppression techniques when applicable	Construction Manager	Construction Phase
Minimise amount of Public complaints	Complaints received to Site Management Team	Ensure when works which will impede public access are taking place, all residents are informed for the timescale (if applicable) and all restrictions are kept to a minimum	Construction Manager / Greenways Manager	All stages
Minimise water usage consumption	Water charges, waste water disposal (discharge volumes)	All grey water to be reused on site where possible. 'Fresh' water supply to be kept to a minimum where possible.	Construction Manager	Construction Phase
Minimise airborne & ground borne noise	Noise triggers breached	All construction noise limits set out in the contract adhered to.	Construction Manager	Construction Phase
Ensure vehicle movement / material placement does not cause damage to flora and fauna	Correct habitat protection used. Wildlife surveys where applicable	All fauna/animal species to be untouched where possible. Professional advice to be sought on procedures when required	Construction Manager	Construction Phase

2. ECOLOGICAL, ENVIRONMENTAL AND LOCAL CONSIDERATIONS

2.1. Land Characteristics on the Route

The existing environment can be considered as three broad sections or legs. See Map 1 in Appendix A.

Leg 1 is mostly agricultural land at the fringe of Wexford Town extending to the edge of the slob lands. The land is slightly elevated, overlooking the harbour on soft clay coastline with aggressive erosion occurring. The fields are bound by low hedging and the land is both farmed and unfarmed.

Leg 2 is the land contained within the North Slob. This land is flat and open country with few hedges on heavy poor draining soil. The land is a mix of grass meadows and cereal / fodder crops. The western section of the slob land is within the Wildfowl Reserve and the eastern part is private farmland. The slob lands are approximately 2m below sea level protected by a 4m high earth wall. The land is drained by wide open ditches accumulating into large open channels where water is pumped to sea.

Leg 3 is the Raven Wood Reserve. The Reserve is a sand dune system covered with a stand of mature pine trees. The outer dune's at the edge of the point are open and covered in marine grasses.

2.2. Existing Corridor Restrictions

There are restrictions along the route of the site which need to be considered, these include the access points, site traffic routes, the narrowness of the construction site, the characteristics of the SAC's, SPA's, pNHA's and the Wexford Wildfowl Reserve requirements. Refer to drawings OCMS2, OCMS3 and OCMS4 in Appendix A.

A number of route options were considered, these are discussed in Book 2. For user health and safety reasons and to reduce the potential impact on the SAC, SPA and pNHA the shortest route along the shoreline was chosen.

The Greenland white-fronted geese, other geese, the Hen Harrier and the natter jack toad require special consideration. Bird nests in hedge rows, protected plant species and invasive species will need to be surveyed prior to project commencement with protection or mitigation measures provided as required.

The Natura Impact Statement (NIS) addresses the potential greenway impacts on the designated areas of special interest in greater detail. The NIS concluded that with the proposed mitigation measures in place, the only potentially significant risks to those relevant European sites arise from potential construction related surface water discharges. However with the full implementation of the mitigation measures outlined in the NIS the risks will be avoided. (Ref. NIS Section 6).

2.3. Slaney River Valley SAC at Burgess

The Slaney River Valley Special Area of Conservation (SAC) extends in from the shoreline to cover a wetland area in the townlands of Burgess and Ardavan from Chainage 1000m to 1300m approximately. The wetland habitat is a known feeding and roosting area for the winter birds.

A pre-commencement survey will be carried out to ensure no new mammal resting sites have been established in the SAC/greenway interface.

Construction traffic may not go outside of the construction site as highlighted by the red line of the planning drawings and haulage routes this is to prevent damage to flora and fauna adjacent to the greenway. Access works at the Burgess site will be from the shore site rather than the reedbeds. The ecological clerk of works will demarcate the habitat with a 7m buffer prior to commencement of construction and will be present during the construction works and will monitor the salt marsh habitat during the construction works.

No construction or maintenance works shall take place at the SAC at Burgess (Ch 800- Ch 2500) from 15 September to 15 April during the overwintering period.

The Natura Impact Statement (NIS) section 6.1.2 the greenway impacts on the designated areas of special interest in greater detail.

2.4. Wexford Harbour and Slob pNHA and SPA

The route runs along the edge of the Wexford Harbour and Slob proposed Natural Heritage Area (pNHA) and Special Protection Area (SPA) from Chainage 2,500m to 7,100m. This SPA is one of the top three sites in the county for the number and diversity of wintering birds and of particular importance it is one of the two most important sites in the world for the Greenland white-fronted geese. Between 2011 and 2016 the geese arrived between 28 September and 7 October and leave between 19 March and 9 April.

The Wildfowl Reserve is located on the western side of the SPA/pNHA with agricultural fields on the eastern side. The proposed greenway would hug the sea wall at the edge of the pNHA/SAC. A 1.2km section would be on the existing quiet access road in the reserve which terminates at the visitor centre. It is screened with mature trees. The next 1.9km section would continue adjacent to the sea wall at field edges or on narrow strips of ground between sea wall and the drainage ditches within the Wildfowl Reserve. This remaining 1.5 km section in the pNHA/SPA will again be adjacent to the seawall and is on private agricultural land between of the Wildfowl and the Raven Wood.

The open agriculture fields on the slob are an established feeding and roosting area for winter geese, particularly the Greenland White Fronted Goose. The route therefore runs along the base of the sea wall and the slob.

There is an estimated remaining population of 19,000 worldwide of the Greenland White Fronted Goose and it is estimated that 40% of these white fronted geese graze on the North slob in the winter period. These geese are particularly sensitive to visual human and dog presence which can greatly interfere with their feeding. The presence of one person can cause significant disruption to the geese. For this reason it is proposed to limit the construction and use of a 3,400m section proposed greenway to 5 months in the summer. This section will run from The Wildfowl Reserve Visitors Centre to The Raven Wood.

No construction or maintenance shall take place at this area (Ch 3,700m- Ch 7,100m) from 15 September to 15 April during the Greenland white-fronted goose roosting and foraging winter period.

The Natura Impact Statement (NIS) section 6.1.3 details the greenway impacts on the designated areas of special interest in greater detail.

2.5. Raven Point Nature Reserve SAC

The proposed site route traverses The Raven Point Nature Reserve SAC for a distance 3.3km in covered woodland on an existing rough gravel path. This is one of the few afforested sand dune systems in Ireland. The level of bird disturbance is very much reduced for this section of the route due to the natural screening by trees.

This is a particularly popular local attraction and works will have to be carefully planned to take account of the effects of construction on of public users.

Due to concerns regarding the natterjack toad, the proposed greenway route will completely avoid southern tip of the Raven woods.

Signage, new banking and native planting as advised by the ecologist and fencing will be installed in consultation with NPWS, the site owners, to encourage users to stay on the loop rather than traverse the dunes onto the beach which may lead to dune erosion or to go towards the southern tip of The Raven where the natter jack tern are found. This will also protect the little terns which are found on the sand banks in Wexford Harbour off the southern tip of the Raven by providing a buffer zone. Signage will be erected to educate greenway users of the dynamic dune system and the sensitive nature of this habitat, deterring users from walking through the habitat off the marked route. Signage prohibiting littering, dog fouling, camping and lighting fires will be displayed along the route and in Culletons Gap car park.

The Natura Impact Statement (NIS), section 6.1.1 details the greenway impacts on the designated areas of special interest in greater detail.

2.6. Housing on Orchard Lane and Ardcavan Lane

The proposed greenway crosses Orchard Lane and will run on the Ardcavan lane for 60m. The routes turns inland and runs around two dwellings also. The Ardcavan loop route runs adjacent to the Ardcavan lane for 1.5km.

Screening from greenway users will be provided on some short sections as agreed with house owners.

Construction across the lane and adjacent to residential housing will need to consider and planned at in advance.

It is planned to use the Ardcavan lane for construction traffic access to the site. The lane is narrow and a traffic management system will be required. The construction manager will be required to produce a detailed traffic management plan for agreement with the client representative prior to commencement. See the section on traffic management for further information. No construction access via Orchard Lane.

2.7. Wildfowl Shoots

There is an average of twelve authorised wildfowl shoots on the North Slob annually. The NPWS hold the rights for most of the shoot with private individuals and syndicates owning the remainder. The North Slob Shoot has the shooting rights leased over the Curracloe Channel and an adjoining area. The Wexford Harbour and District and Wildfowlers Association (WHDWA) have the shooting rights from the Department and shoot on a portion of the Raven which runs up to the sea wall/Curracloe Channel. The shoots may occur from the 1 September for 31 January, although typically no shoot occurs until mid-September. The Right holders meet in advance of the season to agree dates. The section of the greenway in the Slob will generally be closed during the shoot period. However should a shoot occur during the open season Wexford County Council will liaise with the groups and organise to this section during the shoot. This will be advertised locally, on facebook and the council website well in advance if necessary. Council Staff will be in place at either end of the closed section for the duration of the shoot which typically is from dawn to 11am.

The shooters will require access from outside the greenway into the slob to retrieve shot wildfowl. Final details of the access gates to retrieve the shot wildfowl will be agreed prior to construction with WHDWA Wexford Harbour and District and Wildfowlers Association. A warden will be available on shoot days between 8.30am and 9.30am to open gates to retrieve the shot wildfowl.

2.8. Impact on Road Traffic and Parking

During the operational phase of the proposed greenway it anticipated that most users will join the greenway at the Ferrybank trailhead in Wexford town. It is expected that any additional traffic generated on the local and regional road to the Raven trailhead will be balanced by users who choose to use the greenway from Wexford instead of driving to the Raven.

In summer time a one way traffic system is implement each year due to the narrowness of the roads, traffic way only travel from White Gap towards Culletons Gap.

Construction works will not interfere with car parking. It is anticipated that construction will result in 20 delivery trucks per day over the main 5 month construction period. Traffic management during the construction phase is discussed in section 4.2.

Proposed and existing parking along the greenway and loop users is as follows:

Chainage	Location	Spaces	Proposed/ Existing	Notes
0m	Ferrybank-trail head- Public greenway access point.	100 cars	Existing	€2 per visit. Barrier opens at 8pm. There is the potential to develop further parking adjacent land. Bike parking to be provided.
2,500m	Ardcavan Lane- Possible greenway access point	25	Proposed car park	
3,700m	The Wildfowl Reserve	64	Existing	Not to be used by greenway users
10,700m	Culletons Gap-trail head- Public greenway access point	52 plus 30 on verges	Existing	Insufficient in Summer/Weekends
450m from Culletons Gap	Overflow car park between Culletons Gap and White Gap	100	Existing hard core surface	Generally closed Traffic calming required on one way road between White Gap and Culletons Gap
900m from Culletons Gap	White Gap Beach car park	200	Existing	Insufficient when sunny. Traffic calming required on one way road between White Gap and Culletons Gap
2.2km to Culletons Gap	Ballinesker Beach car park	69	Existing	Traffic calming required on one way road between White Gap and Ballinesker Beach.
Various	Other parking on Ardcavan loop	various	Existing	Various spaces available in industrial estates along route

3. MITIGATION MEASURES

Potential Impacts on European sites

The Natura Impact Statement states that there is potential for impacts on the four relevant European sites (in the absence of mitigation) within the zone of influence of the proposed greenway arising from the following:

1. Construction-related surface water discharges;
2. Construction-related disturbance to Qualifying Interest (QI) and Special Conservation Interest (SCI) habitats and species;
3. Risk of QI habitat erosion and degradation, for which the European sites are designated, resulting from activities associated with greenway users, littering, dog fouling and unauthorised camping;
4. Disturbance to SCI and QI species during construction and upgrade of the greenway;
5. Disturbance to SCI and/or QI species caused by recreational users, the presence of dogs and increased numbers of pedestrians in the presence in the general area;
6. Short or long-term displacement of SCI and/or QI species resulting from disturbance caused by greenway users; and
7. Potential barrier to movement of SCI and QI species created by the provision of the greenway route.

Ecological Mitigation Measures

The mitigation measures detailed in this report include those detailed in the Natura Impact Statement. The following mitigation measures are proposed to protect ecologically sensitive features within the zone of influence of the proposed construction works outlined in this document, and to comply with national and international legislation:

Wildlife Acts 1976 - 2012 (as amended);

European Communities (EC) (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011) (as amended);

EU Habitats Directive 92/43/EEC (as amended); and

Flora (Protection) Order, 2015.

Protection of surface water is discussed in section 5.2.

3.1. Winter/Spring Closure of the Greenway Mid-Section

Construction Phase

Construction, maintenance and usage of the mid-section of the greenway will not be permitted during the winter/spring period due to the inward migration of winter geese and in particular the Greenland White Fronted Goose.

Construction works also shall not occur during the winter bird breeding season at Burgess.

Construction works on the greenway route from Ch 800 to Ch 7,130, the site compounds or haul routes in the SPA works shall only occur from April 15th to September 15th on the. This is a 5 month window.

This closure period allows for the period when the geese are present and accounts for early arrival and late leaving birds.

The main contractor will impose strict site restrictions to prevent access into the reserve and slob from all sides. The main contractor shall erect the secure fencing and gates as soon as possible in the construction programme.

The Ecological Clerk of Works will monitor the Greenland white-fronted goose during construction works in areas outside of the winter closure sections for any signs of disturbance relating to the construction works. If disturbance associated with the proposed works is detected, the works will be stopped immediately and postponed until outside of the closed period. Ref. NIS Section 6.1.3.3.

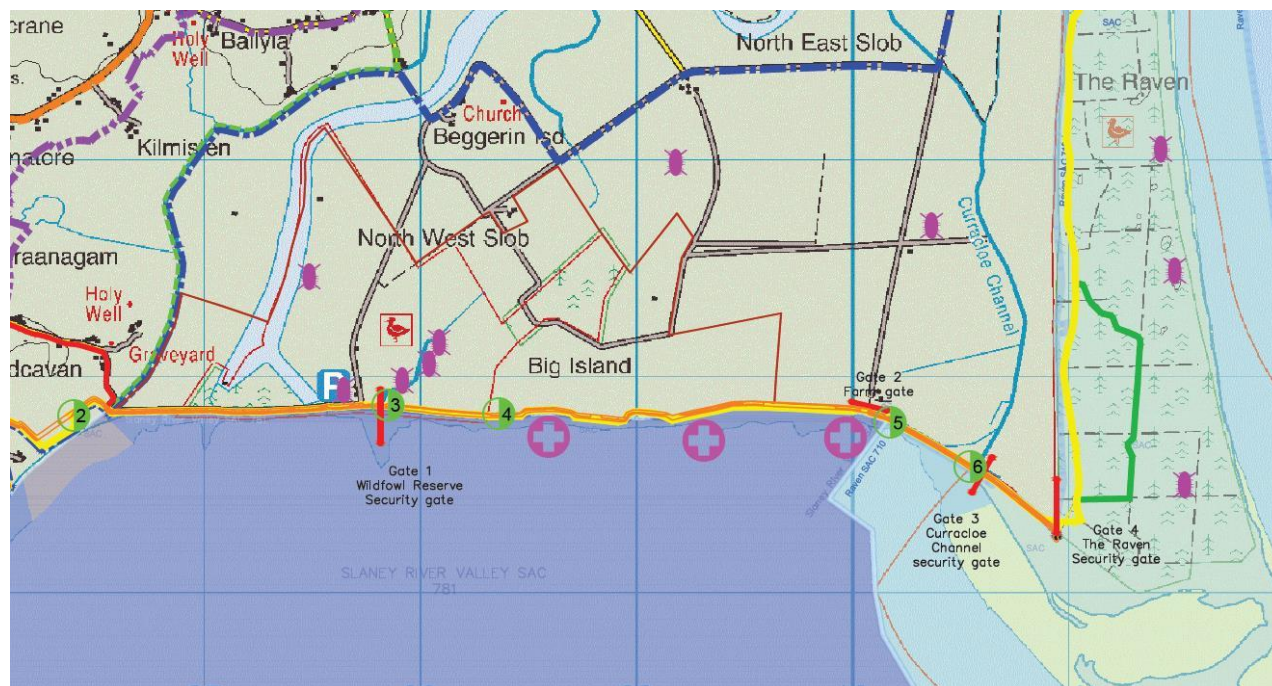
Operational Phase

Four secure gates will be provided on the greenway to prevent access at either end of the greenway or access via farm lanes on the Slob. The 1.4m high paladin fencing on the landward side and the 1.8m high paladin fencing on the seaward side of the greenway will join to the and will provide a high level of security. There will also be monitored by CCTV with infrared capability at the gates.

During the operational phase secure gates 1, 2, 3 & 4 will be closed and monitored by CCTV to prevent people and dog access to the winter geese grazing and roosting area from 15 September to 15 April. This is a 7 month window when the greenway between Ch 3,700 and Ch 7,100 will be closed to users annually. This is the section from the Wildfowl Visitors Centre to the Raven Wood.

Secure Gates 2 & 3 will prevent access to the winter closed section of the greenway from the farm access path in the North Slob.

Gate	Chainage	Location	Purpose	Closure Period
Night Gate 1	300m	Ferrybank Caravan Park	Limit Anti-social behaviour near housing/amenities	Night time
Night Gate 2	2,500m	Ardcavan Lane Carpark	Limit Anti-social behaviour near housing/amenities	Night time
Secure Gate 1	3,700m	Wildfowl Reserve Visitors Centre	Close greenway at slob to protect winter feeding geese	7months 15 Sept-15 April
Secure Gate 2	6,100m	Red Bridge Farm Access	Prevent winter access to greenway via farm lane	7months 15 Sept-15 April
Secure Gate 3	6,750m	Curracloe Channel	Secondary gate to prevent access via farmland	7months 15 Sept-15 April
Secure Gate 4	7,130m	North Slob Exit / Raven Wood Entry	Close greenway at slob to protect winter feeding geese	7months 15 Sept-15 April



The paladin fencing will prevent users and users' dogs from climbing on to the seawall or unauthorised access to the Wildfowl reserve. The fencing and screening will protect mammals and feeding and breeding birds from greenway users thus limiting disturbance in the Wildfowl Reserve fauna during the open season of Leg 2.

During the operational phase Night Gates 1 and 2 will be locked generally from dusk until dawn by Wardens from Wexford County Councils Environment section under the direction of the Greenways Manager to limit night-time disturbance to Ferrybank Caravan Park users and house owners on the Ardavan looped walk.

Drawings showing the gate locations are provided in Appendix A

3.2. Two Looped Routes at Trail heads

The section of the greenway in the Slob will be closed from 15 September to 15 April annually to protect the Greenland white fronted Geese. To prevent unauthorised winter access to this section and to provide options to potential users two looped routes will be provided, one at each trail head. These are described in sections 1.5 and 1.6. These will be promoted as alternative routes for users.

3.3. Sea Wall Access Control

At any time of the year people or dogs on the top of the sea wall would potentially disturb the birds in the Wildfowl Reserve and cause damage to the sea wall. Very small dogs accessing the seawall could possibly use fauna passes to enter the wildfowl reserve. Secure gates 1- 4 and fencing will provide a barrier that will make it extremely difficult for users or dogs to access the sea wall. Fauna passes will be set far enough back from the secure gates so that dogs will not access the Wildfowl reserve via the fauna passes. Briars will be allowed to grow along the fencing providing a further, natural barrier. Lockable access gates in event of emergency will be provided e.g. boat or person in difficulty in the sea and for sea wall repairs.

3.4. Screening

Where screening is required along the site route to mitigate against bird disturbance, this work need to be planned in advance and completed outside the winter closure restrictions. Subject to seasonality and the commencement date for construction, this task should be prioritised as early as possible to further mitigate against bird disturbance during other construction works. The screens will have new grassed soil mounds on the Wildfowl Reserve side of the fence to reduce the visual impact from the Wildfowl Reserve Viewing tower.

Screens at the Curracloe Channel, the Wildfowl Reserve and the SAC at Burgess will eliminate visual disturbance and reduce noise transmission from greenway users to the summer stay birds. The screens at the SAC at Burgess will be soil mounds with new native hedging on top. Brush screening will be provided until the new hedging is established.

The accommodation works agreed with private residencies along the route will require in some cases solid screens to be erected. Where screens are required the contractor will liaison closely with the client and the property owners to ensure that boundary lines and treatment is carried out as per the agreements.

3.5. Raised Platforms and Viewing areas.

Two 60m long raised viewing platforms will be provided with small windows with tinted glass. This will allow greenway users to look into the Slob at the Wildfowl Reserve and Raven ends. Therefore there will be no need for users to attempt to climb over the fencing and onto the seawall to view the Reserve.

Otters were identified at Burgess and at the ponds to the east of the Wildfowl Reserve. A 300m long raised boardwalk will be provided at the salt marsh at Burgess in the Slaney Valley SAC, this will allow mammals, in particular the otter, unrestricted movement underneath. Particular care will be required with construction related surface water run-off in this section. There will be minimal soil disturbance as the boardwalk will be raised. A photomontage of the boardwalk is in Appendix A.

Harbour views are possible at various locations on the Greenway and again this should remove the need for users to climb over proposed fencing and onto the seawall to view the harbour. Signage will be provided to inform users of this.

3.6. Educational Signage

Educational signage will be developed with Wexford County Councils environmental education officer, the greenways manager and the Wildfowl Reserve manager to inform the greenway users of the importance of this sensitive environment, its inhabitants and to treat it with respect.

During the open period at the North Slob signage will be erected on the both approaches to this section of the greenway to inform users they are entering the Wexford Wildfowl Reserve, a part of the European designated site and is the winter homes for the Greenland White-fronted Goose and is of international importance. (Ref. NIS Section 6)

Signage at the Raven will be developed and installed in consultation with NPWS, the site owners, and the ecologist to encourage users to stay on the loop rather than traverse the dunes onto the beach which may lead to dune erosion or to go towards the southern tip of The Raven where the little tern and the natter jack tern are found. Signage will be erected to educate greenway users of the dynamic dune system and the sensitive nature of this habitat, deterring users from walking through the habitat off the marked route.

Signage prohibiting littering, dog fouling, camping and lighting fires will be displayed along the route and in Ferrybank, Ardavan and Culletons Gap car parks.

3.7. Greenway Bye-Laws

Proposed Greenway Bye-Laws would be used as a measure to ensure the greenway is used by member of the public to the maximum extent in safety and comfort and without negative effects on the flora and fauna. The Bye-Laws would be used to control and regulate the use of the greenway. There would be a provision for enforcement, penalties and fixed payment notices to be issued for contraventions of the Bye-Laws. The wardens would be authorised to enforce the Bye-laws. A copy of the proposed Bye-Laws is in Appendix C. If the wardens encounter users not respecting the greenway as they carry out their duties, the warden will point out the greenway signage and educate users about the sensitive site.

Wexford County Council has similar bye-laws in place. The Beach Bye-Laws have been in place in Co. Wexford since 2005. In excess of 100 patrols of beaches are carried out annually by Wardens. Records of the inspections are kept on file and assessed by the Administrative Officer. Compliance with the beach bye-laws is generally very good. Where issues were identified, signage or fencing has been erected if appropriate. All complaints received regarding the beaches are logged on the Environment Incidents System. 36 complaints were received in 2013, 22 complaints in 2014, 17 complaints in 2015, 24 complaints in 2016 and 13 complaints in 2017. All complaints were assigned to the Wardens for inspection.

3.8. Wintering Waterbirds

To avoid potential disturbance to internationally and nationally important numbers of wintering waterbirds, including the highly sensitive Greenland white-fronted geese, the following mitigation measures are proposed;

- Implementation of a Winter Geese Construction and Maintenance Exclusion Zone from Chainage 2,500m to 7,100m (see OCMS1 in Appendix A and section 3.1 above). No clearance, site investigation or any other works associated with the proposed development will occur within this exclusion zone during the closed period defined as 16 September to 14 April inclusive; (See Section 11.6 for Maintenance Works)
- Greenland white-fronted geese and wintering waterbirds will be monitored by a suitably qualified Ecological Clerk of Works (ECoW) with extensive ornithological experience during the winter period to ensure works occurring outside the exclusion zone do not cause any level of disturbance to Greenland white-fronted geese especially. Disturbance in this case can be defined as a change of behaviour in response to a disturbance event associated with the proposed works and not in response to current background levels of disturbance;



Figure 1: Winter Geese Construction Exclusion Zone

- If disturbance to Greenland white-fronted geese and wintering waterbirds is observed by the ECoW as a result of the proposed works, all works adjacent must be postponed until outside the closed period defined as 15 September to 15 April.
- The greenway from the Wildfowl Reserve Visitors Centre to the Raven Wood will be closed to users annually from 16 September to 14 April inclusive. This is when the Greenland white-fronted geese may present on site plus a 2 week buffer either side. Signage, security and dog proof fencing, lockable gates, bye-laws and inspections by the warden will be used to enforce the winter closure of this section of the proposed greenway.
- Signage will be erected to educate users at the slob and to inform them of the winter closure. During the open period signage will be erected on the approach to this section of the greenway to inform users they are entering the Wexford Wildfowl Reserve, a part of the European designated site and is the winter homes for the Greenland White-fronted Goose and is of international importance.
- Routine checks of the slob section of the greenway in the closed winter period must take place from a vehicle. Persons must not leave the vehicle during checks.
- Contingency Mitigation Strategy is discussed in section 12 of this report.

3.9. Roosting Winter Birds

To avoid potential disturbance to roosting winter birds, the following mitigation measures are proposed during the construction period;

- Implementation of a Winter Bird Construction and Maintenance Exclusion Zone from Chainage 800m to 2500m (see OCMS1 in Appendix A);
- No construction work clearance, site investigation or any other works associated with the proposed development will occur within this exclusion zone during the closed period defined as 15 September to 15 April inclusive;

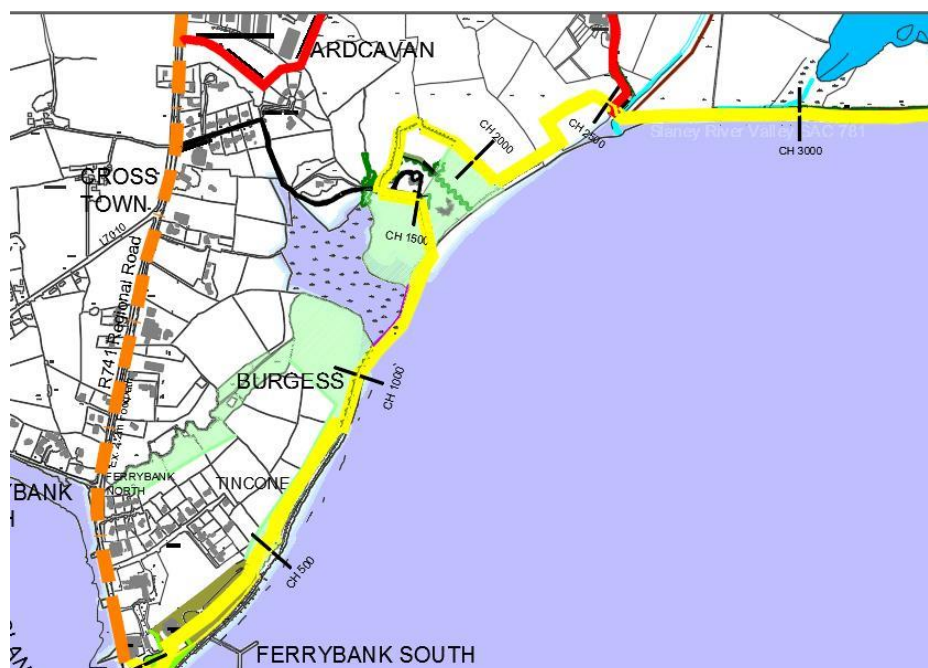


Figure 2: Winter Bird Construction Exclusion Zone – Ch:800 to Ch:2500.

- Roosting winter birds will be monitored by the suitably qualified ECoW during the winter period to ensure works occurring outside the exclusion zone do not cause any level of disturbance. Disturbance in this case can be defined as a change of behaviour in response to a disturbance event associated with the proposed works and not in response to current background levels of disturbance;
- If disturbance to roosting winter birds is observed by the ECoW as a result of the proposed works, all works must be postponed until outside the closed period defined as 16 September to 14 April.
- Dog proof fencing provided along the relevant sections of the route to prevent dogs from accessing relevant areas.

- Provision of landscaped screening along otter (and consequently bird) sensitive area-at Burgess, the ponds at the Wildfowl Reserve and at the Curracloe Channel.
- Daily closure of the greenway from dusk (9pm at the latest) until dawn in the summer season.

3.10. Breeding Birds

In order to avoid disturbance of breeding birds, their nests, eggs and/or their unflown young the following measures will be implemented;

- All works involving the removal of vegetation will be undertaken outside of the nesting season (1 March to 31 August inclusive). This measure will not be possible within the Winter Geese and Hen Harrier Construction Exclusion Zones as indicated on drawing OCMS1 (i.e Chainage 8,00m to 7100 during the period 15 September to 15 April). This would result in a 2 week period in September.

Where this seasonal restriction cannot be observed then:

- A breeding bird check will be undertaken by the suitably qualified ECoW in order to assess whether birds are nesting within the working area. Should nesting birds be encountered during surveys, removal of vegetation may be required to be delayed within a confined area identified by the ECoW until after the nesting season (1 March to 31 August inclusive) or until such time that the nest can be confirmed vacant or in-active.

3.11. Habitats

To avoid potential disturbance and degradation of habitats identified along the route the following measures will be applied;

- All working areas will be demarcated prior to the commencement of proposed works to ensure works are confined to this area and do not sprawl into surrounding habitats;
- Fencing will be erected around hedgerows and trees to be retained to protect against accidental damage;
- No storage or dumping of materials will be carried out outside the working area unless otherwise specified in this document; and
- Where possible, following the completion of works habitats within the working area will be reinstated to conditions prior to the commencement of works.
- Invasive species and sensitive plant species are discussed in section 5.

3.12. Annex 1 Habitats

To avoid potential disturbance to internationally important Annex 1 Atlantic salt meadows (*Glauco-Puccinellietalia maritima*) [1330] and Mediterranean salt meadows (*Juncetalia maritimi*) [1410] the following measures will be applied;

- The extent of the habitat will be demarcated by the suitably qualified ECoW prior to the commencement of construction works. Habitat will be demarcated with wooden post and rail fencing, avoid the use of hazard tape as this could cause visual disturbance to hen harrier roosting nearby ;
- The ECoW will monitor the Annex 1 habitat during construction works in the vicinity to ensure there is no direct or indirect damage or degradation to the habitat;
- Access to the working area in the vicinity of the Annex 1 habitat will be from the shore-side south of the working area rather than the reed-bed north of the working area; and
- Above mitigation for habitats will also apply in this area.

3.13. Mammals

- Pre-commencement checks for otter holts and badger setts along the proposed route will be carried out by the suitably qualified ECoW to ensure that no new mammal resting sites have been created;
- The ECoW will record temporary mammal passage routes along the working area which must not be obstructed as a result of construction; these may include and be additional to 6 permanent greenway mammal pass locations identified on the main drawings. Mammal passes will be provided for otters at the three culvert locations and three additional locations.
- Construction/Maintenance works will not be carried out during the hours of darkness as works and associated lighting may cause disturbance to nocturnal and crepuscular mammals during their peak times of activity; and
- A review of any temporary construction lighting within the working area will be carried out by the ECoW. All lighting should be directional and floodlighting over large areas will be avoided to minimise impact upon the foraging activity of the nocturnal and crepuscular mammals.
- A 300m raised boardwalk will be provided at the Slaney Valley SAC to allow free mammal movement underneath between the wetlands, watercourses and drainage ditches.

- Dog proof fencing provided along the relevant sections of the route to prevent dogs from accessing certain areas.
- Provision of landscaped screening along otter (and consequently bird) sensitive area-at Burgess, the ponds at the Wildfowl Reserve and at the Curracloe Channel.
- Daily closure of the greenway from dusk (9pm at the latest) until dawn in the summer season.

3.14. Bats

A precautionary approach to protect against harm to individual bats will be applied as follows:

- Checks for bats should be carried out prior to felling trees with identified potential roost features;
- If bats are found works may have to be delayed until the Local Conservation Ranger of the National Parks and Wildlife Service (NPWS) is consulted and a derogation licence applied for where necessary; and
- A review of any temporary construction lighting within the working area will be carried out by the suitably qualified ECoW. All lighting will be directional and floodlighting over large areas should be avoided to minimise impact upon the foraging, commuting and roosting behaviour of bats using habitats within the vicinity.

4. OUTLINE CONSTRUCTION METHODS

The construction method adopted for this project will need to address the fact that majority of the proposed site is within or adjacent to designated special areas. These designated areas have requirements which will restrict the construction works seasons, site clearance methods, noise limits and limited access along the site. The nature of the site and the restrictive requirements imposed on it are outlined in the sections below.

The construction is considered under the following main headings:

- Temporary Construction Compounds
- Construction of the greenway path with passing points and turning points
- Upgrade of the Raven gravel path
- Installation of fencing, security gates, gates, viewing platforms, signage and culverts.
- CCTV.
- Construction of the car park.

For ecological reasons the construction of greenway at Burgess and at the North Slob (Ch.800 to Ch. 7,130) may only occur from 15 April to 15 September. There will be no access to the site compounds and access routes in the SPA during this period also.

Construction at the Ferrybank end (Ch 0-800m), the Raven end (Ch 7,130m+) and the Ferrybank Loop may occur at any time during the year subject to normal limitations.

The appointed contractor must ensure the public do not have access to the construction site during the construction period.

The appointed contractor will be required to comply with this Outline Construction Method and Environmental Management System and to ensure all subcontractors and employees also comply. Full method statements will be provided by the contractor and approved by the clients representative prior to the commencement of construction.

4.1. Temporary Site Compounds

It is proposed to use 4 no. temporary compounds at the following locations:

No.	Ch	Name	Limitations	Access Route
1	0	9,600m ² area adjacent to Ferrybank car park	Welfare Facilities required. Hard core surface.	Good access via Regional Road
2	2,500	Proposed Ardavan Lane car park footprint	Not to be constructed between 15 September-15 April (Slaney Valley SAC). Grassed. Welfare Facilities required.	Access via Narrow Local Road
3	6,100	Agricultural yard	Not to be used 15 September-15 April (Wildfowl Reserve). Welfare Facilities required.	Access via Narrow Public Roads at Red Bridge
4	10,700	Agricultural yard opposite the Raven Car park	Welfare Facilities required. One way public traffic system	Via Local Roads

The locations of the construction compounds are shown on drawings OCMS1 and OCMS5 in Appendix A. Three of the four proposed temporary site compounds have a concrete or tarmacadam surface and will not require significant works to form a compound other than portable welfare facilities, material storage areas and fencing.

An additional compound may be required away from the site route if additional storage is required for waste or materials.

Compound 2 is partially on a grassed area and will require a hardstand area. It will be constructed as follows:

- Timber posts will be used to mark out the site corners.
- Remove ditch where required.
- A layer of top soil will be stripped from the compound area using a suitably sized excavator. The topsoil is to be stored adjacent to the compound for reuse during reinstatement.

- A layer of geotextile will be placed over the excavated area.
- Compacted layers of well graded granular material will be spread and compacted to provide a hard area for portable site welfare facilities and material storage.

The four proposed construction compounds will require the following:

- A bunded area for fuel and oil storage.
- Perimeter fencing with secure lockable gates.
- Portable site welfare facilities with an integrated sewage holding tank. This will be maintained regularly by a service contractor and will be removed on completion of the works.
- A temporary water supply and temporary storage tank, or water supplied by mobile tanker where public water is not available.
- On completion of the works the compound will be decommissioned by excavating the hardcore and backfilling with the original topsoil, levelled and reseeded as appropriate. The excavated hardcore will be transported to an Authorised Waste Facility.
- The temporary compounds will be returned to their original state on completion of the works. Compound 2 will be developed into a new car park for the greenway.

4.2. Traffic Management & Site Access Routes

Many sections of the proposed greenway are remote; the public access roads to the site are generally limited and narrow. The greenway site itself is very narrow with a typical construction corridor of 10m. For these reasons, a one way site traffic management system may be used at certain phases of the construction to limit inconvenience on local people and to help the flow of delivery trucks. The proposed construction access routes are detailed on drawing OCMS 1 in appendix A. Hammer head turning area and passing points are suggested on the drawings to reduce disturbance from noise during the construction period. During the operational period these can be used by emergency vehicles and by the Warden/NPWS during their monitoring.

Construction traffic must stay within the marked out construction site, as shown by the red line on the planning drawings and only use the turning points provided to avoid damage to flora and fauna adjacent to the construction site.

Access routes that pass through and site compounds in the Slob may not be used from 15 September to 15 April by the Contractor or his subcontractors or agents.

During the construction phase approximately 1000 20tonne loads of stone and clause 804 along with approximately 1000 loads of fencing, screens, concrete and tarmacadam will be brought onto the site via the five site access points during the main 5 month construction window. This would result in 20 loads of material being delivered to site per day on average.

The appointed contractor will be required to provide a detailed traffic management plan prior to the commencement of the works. This will include delivery methods and timings to minimise impact and methods to ensure delivery truck keep reversing and time idling to a minimum. The plan may include truck queuing areas and communication methods for the one way areas and methods to ensure access is maintained on local roads, to the Wildfowl Reserve and for farms.

Prior to commencement the contractor will engage with local stakeholder to provide information on the traffic management plan and the timeframe and scale of the project.

4.3. Site Overview & Restrictions

The typical greenway corridor is 6m wide consisting of a 3m central being tarmacadam stripe with 1m-1.5m grassed verges and various types of fencing to either side as per the ecological requirements. The corridor and verges will narrow on occasion where the sea wall/site conditions dictate. The construction footprint width will typically be 10m wide as indicated by the red line on the main set of drawings.

The proposed greenway site route is limited to five entry points over the 10.7km route. These are at the temporary site compounds listed. The works will start at these five access points by stripping topsoil and placing stone to create an access route along the proposed route. These access routes will allow site materials to be transfer deep into the site.

The Contractor will be required to ensure that there is full control of the access to the construction site to prevent the public accessing the site during construction.

The Ferrybank Loop can be accessed more easily for construction from a number of locations in the industrial estate and along Ardcahan Lane.

The existing topography is as follows:

No.	Chainage	Description	Current Surface	Main Considerations
1	0-450m	Ferrybank public park, swimming pool, caravan park	Grassed Amenity Area	Caravan park busy in July-August Public amenity area
2	450m-1,000m	Townlands: Tincone, Burgess	Coastal/Agricultural	Cliffs and coastal erosion
3	1,000m-1,300m	Townland of Ardcavan. Wexford Harbour & Slob pNHA & SPA. Slaney River Valley SAC.	Reed bed This will be a boardwalk section to allow for fauna passage.	No works 15 September-15 April. ECoW to be present during construction works to monitor habitat.
4	1,300m-2,500m	Houses / Ardcavan Lane	Agricultural. Lane Crossing. Coastal.	Dwellings/ Noise Maintain Local Access. Cliffs and coastal erosion
6	2,500m-3,700m	Wildfowl Reserve/ North Slob. Wexford Harbour & Slob pNHA & SPA.	Existing tarmac access road to Wildfowl Reserve inside Sea wall	No works 15 September -15 April. Maintain access to Reserve. Public walking amenity.
7	3,700m-5,750m	Wildfowl Reserve/ North Slob. Wexford Harbour & Slob pNHA & SPA.	Coastal/grass/rough grass	No works 15 September -15 April. Greenland Geese. Provide 1m buffer from Sea Wall
8	5,750m-6,200m	Farmland/ North Slob Wexford Harbour & Slob pNHA & SPA. Raven Point Nature Reserve SAC	Coastal/grass	No works 15 September -15 April. Geese. Provide 1m buffer from Sea Wall

No.	Chainage	Description	Current Surface	Main Considerations
9	6,200m- 7,100m	Farmland/ North Slob Wexford Harbour & Slob pNHA & SPA. Raven Point Nature Reserve SAC	Existing Access Road inside Sea wall	No works 15 September -15Apr. Geese. Provide 1m buffer from Sea Wall
10	7,100m- 10,700m	The Raven Forestry Wexford Slob & Harbour pNHA Raven Point Nature Reserve SAC	Existing Hard core Path	Natter jack toad - Avoid Southern Tip Public amenity area
11	Additional 1,400m	The Raven Loop Wexford Slob & Harbour pNHA Raven Point Nature Reserve SAC	Existing Hard core Path	Natter jack toad - Avoid Southern Tip Public amenity area
12	Additional 3,500m	The Ferrybank Loop -60m on Ardcavan Lane -1.5km adjacent Lane -1.4km in fields -1.6km on footpaths R741 -1.6km new bike path R741	Existing Road Grassland Grassland Existing By Area Office	Dwellings/ Noise. Maintain Local Access.

4.4. Path Construction

A total of 14km of new tarmac path will be constructed for the greenway and loops.

- 7.9km of new greenway will be on grass land.
- 1.2km on the existing tarmac Wildfowl Access Road.
- 1km on farm access track.
- 3.5km on the Raven Hardcore trail.
- 300m will be raised boardwalk

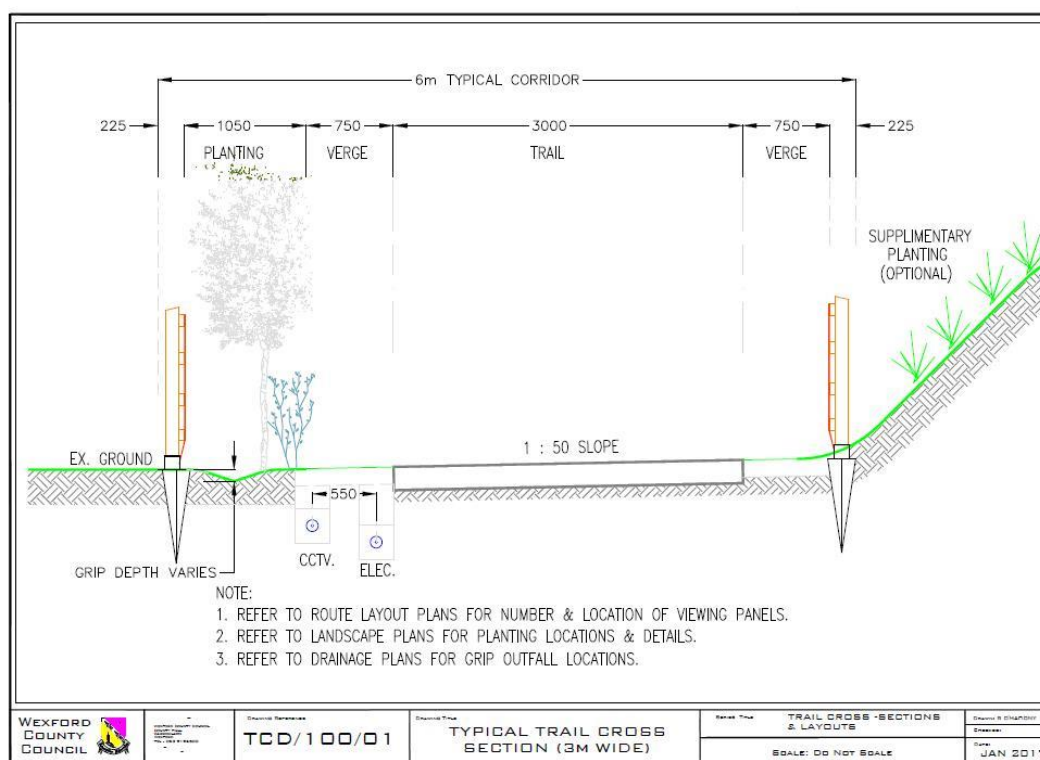


Figure 3: Typical Greenway Cross Section

Local and Environmental Considerations

No works to occur during the winter bird breeding season of 15 September to 15 April at the SAC pocket at Burgess or at the Slob (ie Ch 800 to Ch 7,100).

Construction Method

The access and greenway works will be generally as follows:

- Use timber posts and tape to mark off the extent of the construction site, generally 10m wide as per the main drawings. The construction corridor is not to go within 2m of the cliff edge.

- Use timber posts and tape to mark off the hedgerows. A minimal amount of hedgerows are to be removed and only once the hedgerow nest survey has been completed and only the nesting season has finished.
- Mark out the extent of the tarmacadam path, passing points and turning points.
- Sea Wall-no construction buffer zone of 2m is to be marked out with timber posts and tape.
- Maintain farm and NPWS access, the construction manager shall communicate with the landowners including NPWS and agree an access schedule.
- Prepare site and place appropriate pedestrian/traffic diversions and protection measures.

Sections on grass land

- Monitor weather forecast to ensure silted run-off water will not be an issue. Water quality will be checked on a regular basis. The topsoil on the path, passing points and turning points are to be stripped back using suitable excavators to expose subsoil and grade out irregularities. The width to be excavated will be approx. 300mm wider than the path width with vertical sides to the excavation where possible. The depth to be excavated will typically be 300mm but will depend on site conditions.
- The topsoil will be stored to either side of the track as works progress as far as possible, while ensuring no interference with existing drainage. The majority of topsoil will be used in the finished grass verges. Any excess topsoil, vegetation, scrub and subsoil will be transported by dumper/truck to a site compound. Subsoils and scrub will be dealt with as detailed in Section 5.6 Excavated Spoil Management. Travel will be in one direction as much as possible so as to reduce noise from the reversing beacon on the surrounding dwellings and facilities.
- Passing bays and turning points will have the same finish as the greenway.
- Lay and secure Geotextile sheet as per the standard details, 1m overlap of sheets to be provided.
- 100mm of sub-base material will be hauled in using 20 T Delivery trucks reversing up the 3m wide trail route as it progresses. As turning points are created truck will drive up to the turning point before reversing the remainder of the way. The material will be tipped out and then spread using an excavator. Passing points and turning points will be provided at intervals as

shown on the drawings in Appendix A. Delivery access will be as per the drawings and a one way route will be in operation for site traffic.

It is estimated that 2,250m³ of sub-base material will be required for the 7.9km section of greenway on grassland.



Figure 4. Proposed Route at Burgess

Farm access lane & Hard core trail sections

- Remove top layer of the lane using an excavator bucket to provide a level surface. Remove excavated material to a site compound using a dumper.
- Lay and secure Geotextile sheet as per the standard details, 1m overlap of sheets to be provided.



Figure 5. Proposed Route Along Farm Path at North Slob Wall

All sections

- 100mm of well compacted Clause 804 will be laid on top of the 100mm sub base material and geotextile as per drawing TCD/700/04 in the standard details booklet. The Clause 804 will be delivered onto the site using 20T delivery truck driving up the trail until a turning point and then reversing to the tipping point or alternatively the one way travel system shown on the drawings in Appendix A. An excavator will be used to spread the Cl. 804 in layers which will then be compacted thoroughly in layers using a roller to ensure full compaction and a homogenous surface. A camber of 1:50 is to be provided.
- It is estimated that 2,250m³ of Clause 804 material will be required for the 14km of greenway and loops.
- Once compaction has been completed levels and falls are to be checked at intervals with any deviating layer being raked, topped up with Cl. 804 are re-compacted to the correct levels.
- Excavation for CCTV and Electricity using a narrow bucket on an excavator. Manually lay ducting at the depth and location indicated on the drawings. Backfill around ducting using pea gravel.
- Install pull rope in all ducting. Manholes to be provided at intervals.

- Lay/install 50x50 galvanised angle edging or 50x100 precast kerbs as per standard detail TCD/700/04.
- Using a mini paving machine to lay 50mm of hot rolled macadam to Clause 910/919/920 as per contract documents with a camber of 1:50. Compact layers fully using a roller and continue rolling until full compaction is achieved.



Figure 6: Macadam Paving Machine Laying Sub-base

- An excavator is then to be used to pack the previously excavated topsoil against the edging on both side of the track, the finish level of the soil is to be 100mm below the greenway finish level. Racking, levelling, landscaping and reseeding to occur during the appropriate growing season while ensuring existing drainage mechanisms are not interfered with. Reseed the topsoil on the verges. Allow area outside of fencing to naturally re-vegetate.
- NOTE: It is imperative that invasive species are not introduced or spread on site. All clay shall we washed from vehicles entering site.
- On-going maintenance will include inspection and repair of the macadam pavement and grassed verge maintenance and management. Measures will be taken to make repairs and remove debris from paths after storm conditions as per Section 11.

- The excavation and handling of inert material will be carefully managed in such a way as to prevent any potential negative impact on the receiving water environment;
- Where possible the excavated spoil will not be stored beyond the working day, however in the event that this is not practical, appropriate precautions in relation to the material will be taken. These precautions will include appropriate storage and covering.

Ferrybank Loop –Ardcavan Lane Section

This loop will consist of 2.5km on the proposed greenway, 60m on a quiet local road called the Ardcavan Lane, 1.5km adjacent to the Ardcavan Lane, a 1.4km new section to the rear of industrial estate, a new road in industrial park and then onto a 1.6km existing footpath and proposed cycle path on both sides of the R741. This loop will be open all year around generally during daylight hours. Two pedestrian/cycle crossings of the R741 will be provided with an additional pedestrian crossing at the road to the Ferrybank car park and a further crossing at the car park on the Ardcavan Lane.

The Ferrybank Looped Route will required ditch removal and small amounts of road widening on the 1.5km stretch of local road known as the Ardcavan Lane.

- The construction manager is to liaise closely with house and land owners on the Ardcavan lane regarding traffic management and ditch removal.
- Removal/trimming of ditches is not to occur during the nesting season unless a ground nest survey has been carried out immediately prior to construction and no nests were found.
- Traffic management is to be put in place on this narrow lane. Signage to be as per the Signing, Lighting and Guarding Regulations.
- Check for over ground and underground services. The 10kV electrical line will be parked with goalpost and signage as per the Signing, Lighting and Guarding Regulations.
- The road is to be widened by up to 1m into the verge over a 60m length as shown on the drawings. A suitably sized excavator is to be used to widen the road into the verges.
- A suitably sized excavator is to be used to remove the ditch over a 180m length as shown on the drawings; dumpers will transfer the spoil to the Ardcavan temporary compound, spoilt will be bulked up at the compound before it is transported to an authorised waste facility site. All trees are to be retained.

- Existing drainage to be maintained where possible. New drainage, stock proof fencing and gates will be installed as per the drawings, standard details and section 4.5.
- Hedges to be trimmed back as shown on the drawings.
- Existing drainage is to be maintained or piped as agreed with the client representative.

Ferrybank Loop –Field Section

- Hedges to be trimmed back as shown on the drawings. Removal/trimming of ditches is not to occur during the nesting season unless a ground nest survey has been carried out immediately prior to construction and no nests were found.
- Check for over ground and underground services. The 10kV electrical line will be marked with goalpost and signage as per the Signing lighting and guarding regulations.
- Greenway construction is to be as per section 4.4-new trail construction along grassed area.
- Fencing is to be as per section 4.5

Ferrybank Loop –Regional Road Section

- Traffic management is to be put in place on this busy regional road. Signage to be as per the Signing, Lighting and Guarding Regulations.
- Check for over ground and underground services. The 10kV electrical line will be marked with goalpost and signage as per the Signing lighting and guarding regulations.
- 2 no pedestrian crossings with associated electrical works for beacons are to be installed as per the drawings and standard details.
- A further pedestrian crossing is to be provided at Ferrybank as per the drawings.

4.5. Fencing, Screening and Gates

There will be extensive secure fencing along the route. Depending on season and the commencement date of construction the erection of the security fencing and gates should be prioritised. In particular the security gates and security fencing along the base of the sea wall is to be erected to prevent unauthorised access up onto the sea wall during construction. The security gates at the visitor centre and edge of the Raven Wood should be erected as soon as possible to prevent access onto the slob during the construction period and provide greater site security generally.

Fencing types are detailed on drawing OCMS 6 in Appendix A.

The greenway crosses Orchard Lane. The full length of Orchard Lane has not been taken-in-charge and the final eastern section is private. It is proposed to erect an electrified security gate across the lane with complimentary stone piers. This lane is not available for construction access and the secure gate should be erected as soon as possible. There are no winter restrictions at this location. However the lane must remain open and accessible to the local residents at all times.

Fencing is key to protecting the Wildfowl Reserve from September 15 to April 15 during construction and during use of the greenway. Once greenway works commence, it will be imperative that the security fencing from Ch 3,720m-6,000m and security gates at Ch 3,720 (The Ardcaivan Gate) and Ch 7,130 (The Raven Gate) is completed fully before 15 September.

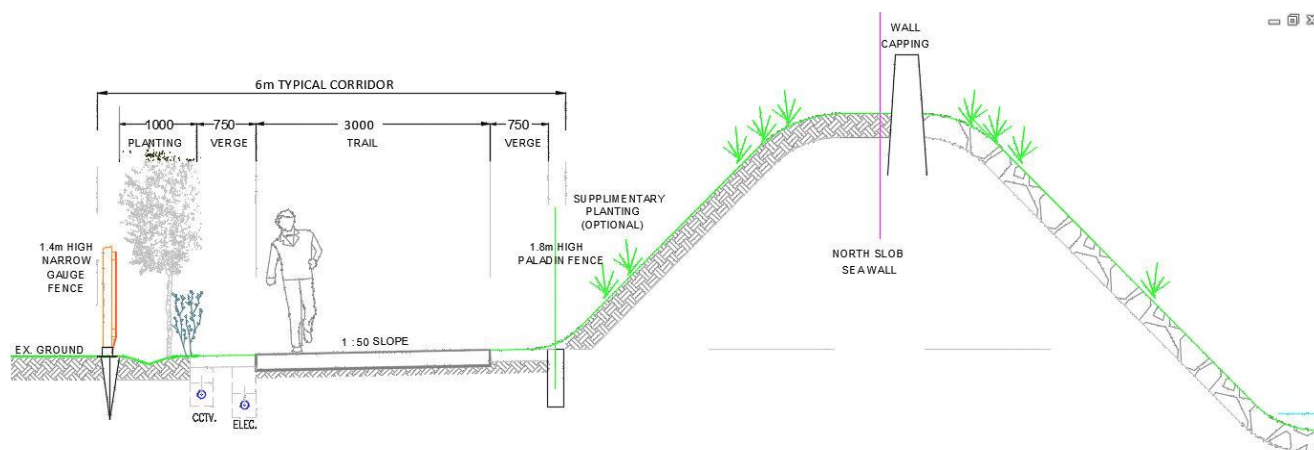


Figure 7 Typical Fencing Cross Section

Fencing and gates can be summarised as follows:

Chainage	Fencing Type	Location	Purpose	No Construction Period
200-400	1.4m paladin	Inland side at caravan park	Prevent unauthorised access to caravan park	N/A
400-1000	1.4m dog proof fence	Inland side of greenway	Security	N/A
1000-1400	2.4m Timber Screening	Inland side of greenway	Screening at Slaney Valley SAC	15 September-15 April
1400-2500	1.4m dog proof fence	Inland side of greenway	Security	15 September-15 April
200-900	1.4m dog proof fence	Seaward side of greenway	Security and prevent access to cliffs	15 September-15 April
1400-1500 1600-1700 1800-1900	2.4m Timber Screening	Seaward side of greenway	Screening to house	15 September-15 April
1900-2500	1.4m dog proof fence	Seaward side of greenway	Security	15 September-15 April
3720-7150	1.8m paladin fence	Seaward side of greenway. Adjacent to the Sea wall	Enable greenway closure. Prevent Seawall access	7months 15 September-15 April
4235-6475 6830-7150	1.4m dog proof fence	Inland side of greenway at sea wall	Enable greenway closure. Prevent access to Slobs	7months 15 September-15 April
Ferrybank Loop	1.4m timber post and rail	Ferrybank	Create new field boundary	N/A
3720-4235 6475-6830	2.1m solid screen	Wildfowl Reserve The Raven	Shield birds from greenway users	7months 15 September-15 April

Gate	Chainage	Location	Purpose	Closure Period
Night Gate 1	300m	Ferrybank Caravan Park	Limit Anti-social behaviour near housing/amenities	Night time
Night Gate 2	2,500m	Ardcavan Lane Carpark	Limit Anti-social behaviour near housing/amenities	Night time
Secure Gate 1	3,700m	Wildfowl Reserve Visitors Centre	Close greenway at slob to protect winter feeding geese	7months 15 September-15 April
Secure Gate 2	6,100m	Red Bridge Farm Access	Prevent winter access to greenway via farm lane	7months 15 September-15 April
Secure Gate 3	6,750m	Curracloe Channel	Secondary gate to prevent access to greenway via farmland.	7months 15 September-15 April
Secure Gate 4	7,130m	North Slob Exit / Raven Wood Entry	Close greenway at slob to protect winter feeding geese	7months 15 September-15 April
Tubular Field Gates		25no. Field entrances	To upgrade field gate	As per landowner
Other Gates	1,500m	Orchard Lane	2 no. secure keycode gates	Not on Greenway
		Orchard Lane	Timber field gates	N/A
		Ferrybank Loop	6 tubular gates	N/A
		Sea Wall Fencing	Access for sea wall repairs and emergencies, boat/person in the sea.	

Construction Method

Refer to drawings in Appendix A, the main set of drawings and standard details drawings for full details.

- Fencing contractors will be inducted onto site and will sign off that they are aware of the site environmental requirements.
- A site traffic management plan is to be created and storage areas for gates/screen/fence panels to be identified along the greenway route. Check for overhead and underground services. Liaise with landowners and residents. Work within the construction site boundary so as not to damage flora and fauna.
- The location of screening, fencing and gate posts are to be marked as per the construction drawings.
- Timber uprights shall be driven into soil with a hydraulic stake driver mounted on a tractor or excavator where ground conditions allow. The location of the uprights may be determined by laying out rails along the ground on the proposed fence line.
- On the dog proof fencing, two rails are to be nailed to the posts as per the standard details using a nail gun/hammer. One strand of high tensile wire is to be fixed to the posts on the field side as close to ground level as possible. Wire mesh is to be secured to the field side of the rails with 4 staples per linear meter on the top rail and 1 staple per linear meter on the other rails. An Additional Concrete plank will be installed at the base of the fence for a section along the Reserve, the plank will be set 75mm in the ground with a gap left between lengths for drainage,
- Bore out footings for screening and gate uprights as per the dimensions on the standard details. The gate post/screen/fencing uprights will be placed in excavated footings and then set in concrete as per the standard details. Minimum depth of excavation will be 750mm below ground level. Uprights to be set in 30N20concrete. Ready mix lorries will deliver concrete to the locations required. Gate posts at the closing end to be adequately supported until the concrete has set. Use spirit level to check upright is plumb.
- Fencing rails/panels will then be assembled once on site and the uprights are secure as per the subcontractor requirements.
- All offcuts and waste will be storage appropriately and removed from the greenway daily.

- All works involving the use of concrete will adhere to the concrete control measures in Section 5.5.
- Drainage is to be maintained at all times.

4.6. Culverts

The proposed route will require at least three culverts to be placed across wide open shallow ditches. The proposed precast boxes culverts will need to be laid in sequence out along each haul route to open up the site beyond. Ditch booms will be required across the ditches downstream of each culvert location to capture sediment runoff. This task will need to be programmed as most culverts required are on the slob which will have the winter closure restrictions.

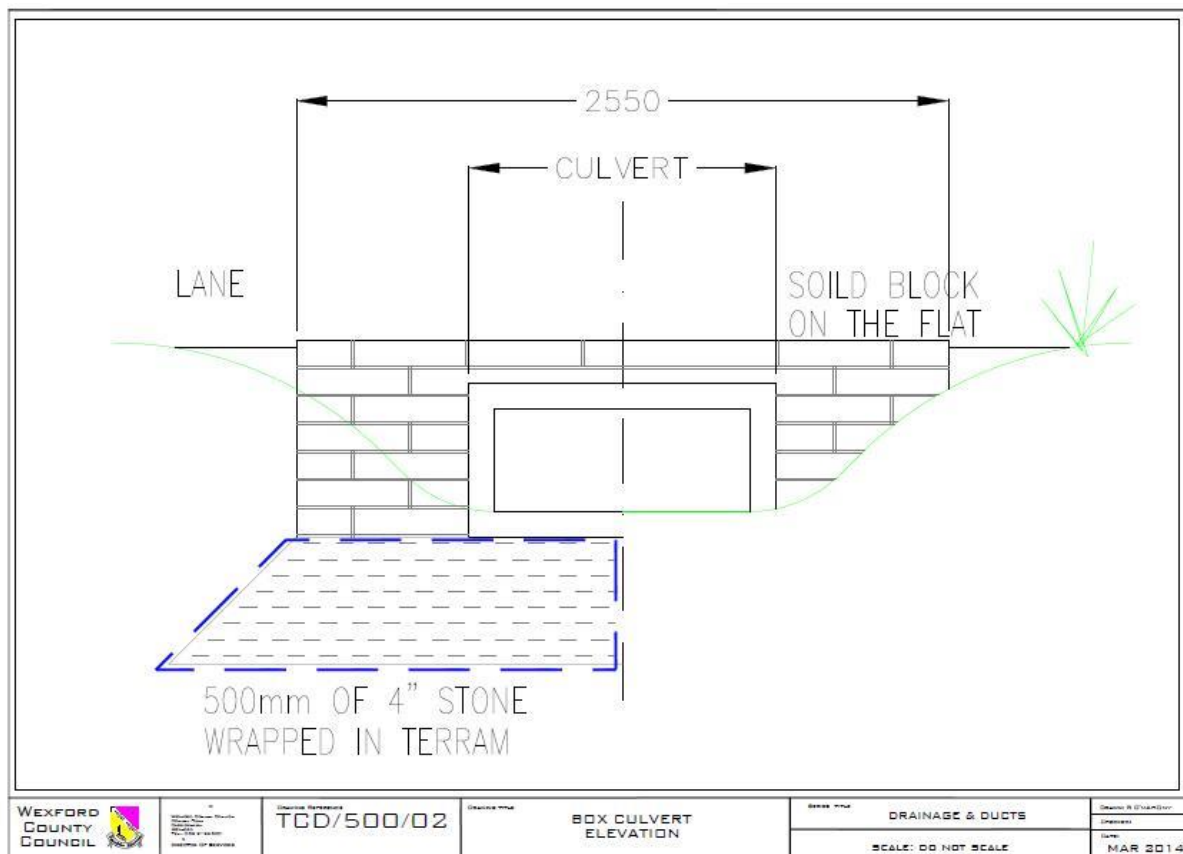


Figure 8: Precast Concrete Box Culvert

- Place silt ditches downstream of the culvert location. Check the weather forecast to ensure work is not scheduled during heavy rain.
- An excavator will remove soil to the required level; excess spoil will be transported to a site compound. The excavator will place at least 500mm of 4" stone wrapped in terram in the foundations. The excavator or suitable crane will then place precast concrete culvert sections into the excavation. The area around the culvert will be made up with solid block on the flat as required. The greenway will then be laid on top as detailed above. Topsoil is to be placed up to the edges of the culvert.

4.7. Viewing Platforms & Boardwalks

The project will require 60m long viewing platforms at two locations over the site route. The platform shall be constructed of light-weight reinforced plastic boards on similar beams and cross beams frames. The frames shall be erected off precast concrete posts or piles driven into the existing ground. The construction tasks required to build the boardwalks will need to be programmed as both locations are on the slob which will have winter closure restrictions. The posts will be cast in concrete as detailed in the fencing section.

Topsoil mounds at the Wildfowl reserve are to be placed using an excavator as per the drawings to provide additional screening from the Wildfowl Viewing Tower. Levelling and reseeding required.

A raised boardwalk will be required through the wetlands at Chainage 1,000-1,300.

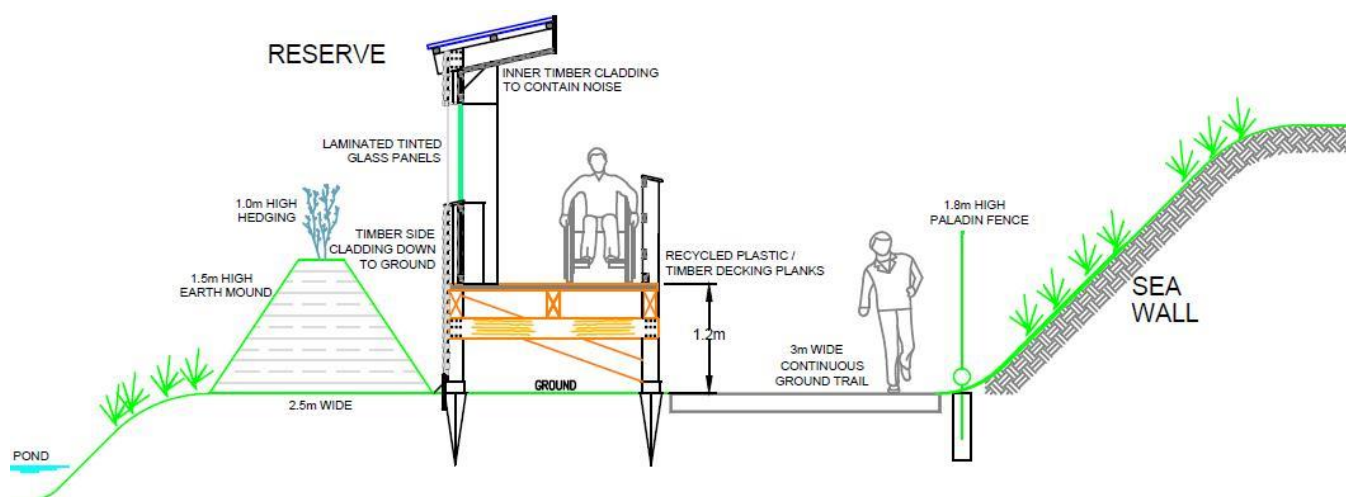


Figure 9: Raised Deck Viewing Point at the reserve ponds

4.8. Road Crossings

There will be four at grade road crossings points along the proposed route which will require traffic calming works to provide a safe crossing point. The proposed works shall plan for keeping access open for the Ferrybank pier, the Orchard Lane and at Ardcaivan Lane.

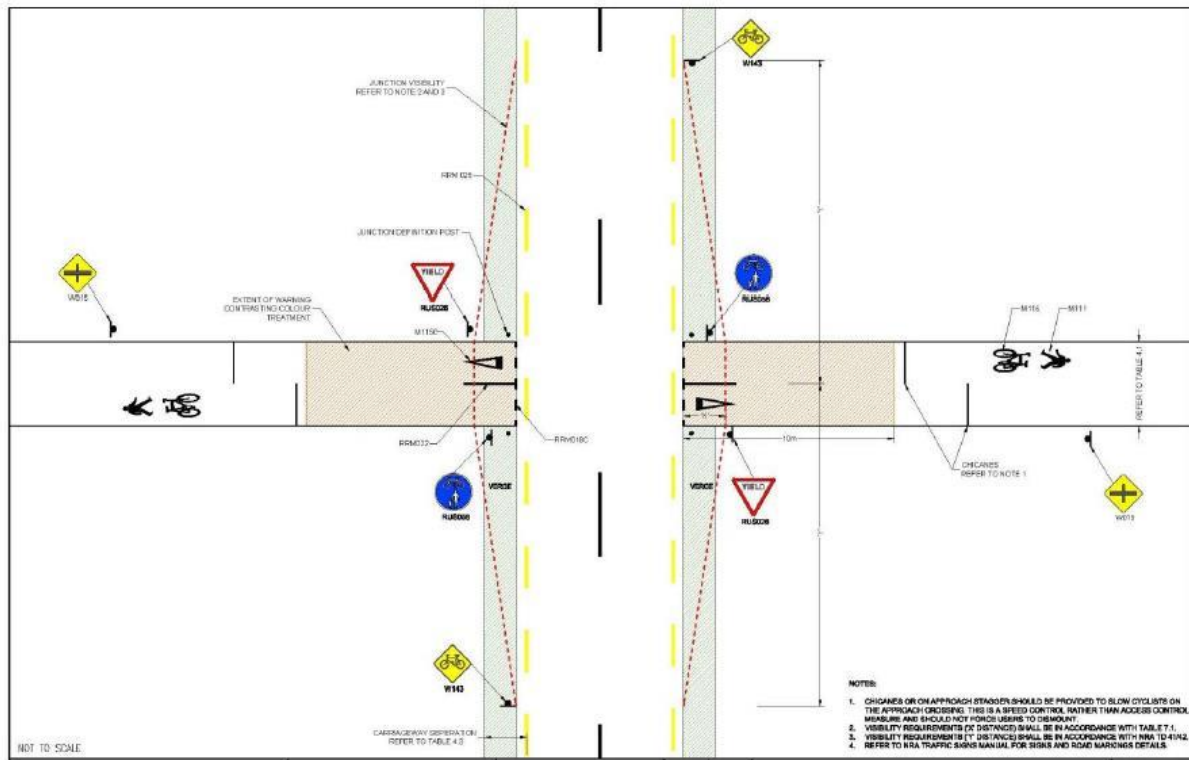


Figure 10: Greenway Crossing at Minor Road - TII's 2017 'Rural Cycleway Design (offline)'

4.9. Drainage

The construction and upgrade of the greenway does not include any significant alteration to the current drainage regime that exists on the grass land and along the North Slob Sea wall. Any introduced drainage will reflect the existing drainage system thereby avoiding any significant changes in surface water run off volumes.

Surface water run-off generated during the construction and operation phase could carry silt, oil and possibly chemicals into the local surface water drainage network which ultimately discharges to Wexford Harbour.

During construction silt fences will be used along the edges of the works to protect the canal and watercourses. As works move along the silt fencing will be removed. Frequent inspections by the Clerk of Works of sit fences are to be recorded to ensure they are operating effectively. Most of the works are to be scheduled during the summer months however additional inspections will be required after storm events.

Falls and cambers on the greenway will ensure run off surface water is diverted towards existing drainage channels and from watercourses.

The existing drainage ditches located along the proposed route and especially through the slob are to be retained.

The new 25 space car park at Ardcavan Lane will have a macadam surface and as such will be impermeable. A series of surface water gullies and pipework will be installed within the sub-base of the car park. The surface water will then be diverted through attenuation tanks, hydrocarbon interceptor with non-return valve prior to discharge. Drainage at car parks is to be as per the main drawings.

None of the existing drainage ditch will need to be piped along the proposed greenway route. Where the proposed greenway is to be placed over any existing ditch, the ditch shall be relocated adjacent the new greenway. Where excavation / clearing is required, booms shall be placed across the ditches downstream from the work to prevent siltation runoff. Drainage ditches adjoining the SAC will be maintained in their present condition.



Figure 11: Greenway Runoff to Drainage Grip / Ditch

4.10. Hedging

Planting was considered along the entire site, however in consultation with the Ecological Consultant it was considered best to allow nature to take over the area behind the fencing rather than planting the area. All existing hedging will be maintained as much as possible with minimal amounts removed to allow greenway pass from field to field.

Soil mounds with new hedging will be provided at certain locations at Burgess and the wildfowl reserve. An excavator will be mounded and compact topsoil striped from the route to create the 1.5m high mounds. A scrub fencing will be erected on top of the soil mounds. Native hedging will be planted beside the scrub fencing.

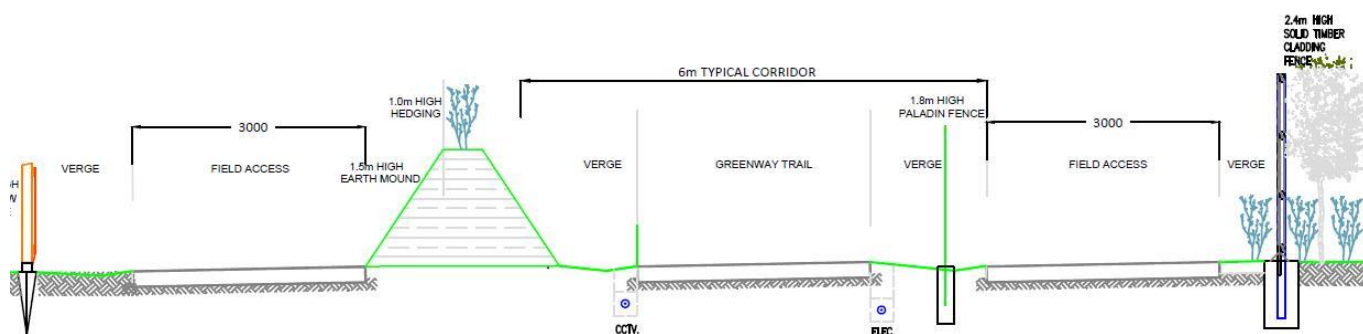


Figure 12: Greenway Adjacent to Orchard Lane

4.11. Car Park Construction

It is proposed to provide an additional car park with 25 spaces on the Ardavan Lane; this will allow a third public access point to the Greenway. Additional bike parking will be provided at car parks on the route.

The construction methodology for the car parks will be as per new greenway construction, see section 4.4 with the following considerations:

- Drainage
- Access barriers

5. ENVIRONMENTAL MANAGEMENT

5.1. Introduction

The following sections give an overview for proposals for:

- Protection of Water Quality
- Refuelling, Fuel and Materials Storage
- Cement Base Product Controls
- Excavated spoil management
- Duct Control
- Noise Control
- Traffic Management
- Invasive Species Control
- Sensitive Species Consideration
- Waste Management

5.2. Protection of Water Quality

Given much of the site is on an already established track and there are existing drains impacts on the water courses is not anticipated.

Construction works during the wetter periods of the year pose a greater risk of erosion and silt run off especially following storm and snow events. Silt fences will be provided where appropriate. Drainage is described in section 4.9, refuelling in 5.3, control of cement based products in 5.5. Water quality will be monitored as detailed in section 8 below. Soil stock piles will be kept to a minimum.

5.3. Refuelling, Fuel and Materials Storage

Where possible, vehicles will be refuelled off site. For site based construction machinery such as excavators and dumpers a limited amount of fuel will be stored on site.

Refuelling and maintenance of plant on site is only to be carried out by trained and competent operatives with site authorisation to refuel plant. On-site refuelling will take place using a mobile double skinned fuel bowser where it is not practical for the machine to travel back to the temporary site compound. Drip trays and fuel absorbent material will be used during all refuelling operations. The towing vehicle will also carry fuel absorbent materials and pads in the event of accidental spillages. The fuel bowser will be parked in a safe and bunded area in the compound when not in use. Any spillages will be reported to the clients' representative.

Quantities of fuel stored on site should be minimal. Fuel storage areas will be bunded and should be weather proof. Fuel storage areas will be in site compounds only. Spill kits will be available in the refuelling area.

Plant will be regularly inspected for leaks and fitness of purpose.

5.4. Plant and Equipment

Prior to construction the contractor shall submit a works programme and method statements based on this document. The contractor shall meet with the client's representative at the commencement of the project and agree the work methods, particularly at the mid-section. These methods shall include plant and equipment that are proposed for the works.

The aim of this is to reduce or eliminate bird disturbance and any other negative impacts on the habitat / environment particularly across the Wildfowl Reserve and the slob. The type of issues to be considered shall include but is not limited to the choice of machines, hours of operation of the machines, the sequence of work for each location, the associate haul routes, the turning locations, turn off trucks / generators which may be on idle, the choice of materials, the storage location of material, prefabrication of decking and culverts off-site and transfer to site, refuelling locations, fuel storage and maintenance.

The sensitive nature of the proposed site shall require the contractor to consider the above items in more detail than other similar scale works.

5.5. Cement Based Product Control Measurements

Concrete will be use around fence and gate posts, possibly also for bedding edging kerbs on the greenway and for culvert construction. The following is proposed to avoid the release of cement leachate from site:

- No batching of wet-cement products will occur on site.
- Ready-mix concrete will be used where possible.
- No washing out of ready-mix trucks or any other equipment used to transport concrete on site. No discharge of cement contaminated water to the watercourses or drainage system permitted.
- Use weather forecast to plan works for dry days.
- Wash out water from ready-mix lorry chute cleaning is to be put into a metal skip specifically for chute washings in the site compounds. The skip shall be covered to prevent rain entering. This chute washing water is to be tankered off site at regular intervals.

5.6. Excavated Spoil Management

Generally topsoil will be reused at the location where it has been excavated for verge finishing.

Any waste vegetation from hedge trimming or removal and subsoil will be transported using an authorised waste collector to a suitable authorised waste facility. Temporary storage of spoil will only be in the site compounds.

Silt fences will be required as appropriate at the temporary spoil stock piles.

5.7. Dust Control

Movement of machinery, excavation and backfilling of soil and granular material can create a lot of dust. The amount of dust generated will depend on the weather conditions and the nature of the works. The following measures are proposed to control dust:

- Regular watering during dry/windy conditions of access points and points near sensitive receptors such as dwellings and caravan parks where there is the potential to give rise to dust.
- The public roads outside of the site will be regularly inspected by the clerk of works for cleanliness and cleaned using a water bowser or road scrubber as required.
- Material handling systems and storage areas to be laid out so as to minimise dust.
- Transport of soil shall in in tarpaulin covered vehicles.
- Street sweeper will be used where necessary.

5.8. Noise Control

Movement of machinery, tipping of materials, excavating and backfilling of soil and granular material can create a lot of noise. The following measures are proposed to control noise:

- Site construction hours will be limited to 8am to 6pm Monday to Saturday.
- Traffic management to reduce the amount of reversing and time spent idling
- Turn off machinery when not in use.
- All plant and machinery shall be kept in good repair and fitted with exhaust silencers where appropriate. Machinery should be selected based on lower noise ratings.

5.9. Invasive Species Management

Measure will be taken to prevent the introduction of invasive species such as Japanese Knotweed, Himalayan Balsam and Giant Hogweed onto site.

No invasive species have been noted at the site to date. An invasive species survey will be carried out prior to construction.

The clerk of works shall ensure that there are procedures in place for check the wheels of vehicles coming on site and to provide suitable cleansing as necessary or to reject the vehicle from site. A bio-security protocol will be put in place during the construction phase of the development. This will ensure that all plant machinery and equipment will be thoroughly cleaned and inspected for invasive species prior to leaving site

Where any invasive species i.e. Japanese knotweed is identified on site during construction the National Roads Authority's (NRA) Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads (2010) and in particular the measures listed in the UK Environmental Agency's Managing Japanese knotweed on development sites, The Knotweed Code of Practice should be adhered to, a link to both these documents is provided below;

Should any soil be imported for landscaping purposes will be screened and verified as free of noxious weeds and invasive non-native species. Due care will be applied to ensure invasive alien species of plant and animal are not inadvertently spread during the landscaping works.

Once the development is completed the Greenway Manager for County Wexford will take over management for the greenway maintenance of the Greenway in accordance with Wexford's methodology for maintenance of greenways.

5.10. Sensitive Species Considerations

A survey to be carried out prior to construction to identify if there are any sensitive plant species on site and to consult with the County Botanist if any are found.

5.11. Waste Management

Waste Management Act 1996 (As amended) shall be observed.

Waste should be prevented and minimised, reused where appropriate or recycling if possible before considering the disposal route.

Materials should be ordered carefully to ensure excess waste is not generated. Select materials with the least amount of packaging.

Hazardous wastes may occur if a fuel spill occurs or if paints or chemicals are used. These waste streams will need to be dealt with appropriately.

Typical wastes arising from this project would include:

Material Type	Example
Timber	Fencing off cuts
Mixed Municipal waste	General Waste
Clean soil and stone	Subsoils Excavated
Packaging	Containers
Plastic	Electrical Ducting
Concrete Wash water	Ready mix lorries

All waste generated should be segregated and be kept separate and place in segregated skips in the temporary compounds. Absolutely no waste should be left along the greenway route. Absolutely no burning of waste or any material is permitted on the site or in the compounds.

Recycling of materials will be encouraged where possible.

The Site Manager will be responsible for development and implementing the Site Waste Management Plan.

Waste may only be collected or transported by appropriately authorised Waste Collection Permit holders.

Wastes may only be exported to suitably authorised Waste Facility Permit Sites.

Training to all staff arriving on site will be provided during site induction by the Site Manager.

The site manager will be responsible for record keeping of all waste generated and transported off site.

6. ENVIRONMENTAL MANAGEMENT IMPLEMENTATION

6.1. Construction Manager

The Construction Manager will have overall responsibility for the organisation and execution of all construction related environmental activities as appropriate. The duties and responsibilities include:

- Ensuring that all works are planned and completed safely and with minimal environmental risk
- Develop and implement the Project Construction Method Statements and Environmental Management Plan, ensuring all environmental standards required are achieved during the construction of the project.
- Take advice from the Ecological Clerk of Works on legislation, codes of practice, guidance notes and good environmental working practices relevant to the works.
- Ensure compliance through audits and management site visits,
- Ensure timely notification and action of environmental incidents and complaints to the Client Representative.

6.2. Ecological Clerk of Works – Part time

The client will engage a qualified experienced environmental engineer, environmental scientist or equivalent to act as the ecological clerk of works for the project.

The Ecological Clerk of Works will report to the Construction Manager and will be responsible for the following:

- To monitor the site works and ensure the planned methods and mitigation measures are followed and negative environmental impacts are avoided.
- Identifying Compliance Requirements (before works commence).
- Review and approved the contractors method statements
- Implement monitoring programmes (e.g. invasive species, water quality)
- To demarcate the habitat at the SAC prior to the commencement of the construction works. (Reference 6.1.2.8 of NIS)
- To be present during the construction works at the SAC and to monitor the salt meadow habitat. (Reference 6.1.2.8 of NIS)

- Provide and present Environmental Reports to demonstrate compliance with the Construction Environmental Management Plan
- To provide guidance on control measures to minimise the adverse impacts of environmental pollution during construction activities.
- To advise the construction Manager on:
 - Prevention of environmental pollution and best practice
 - Changes in legislation
 - Suitability and use of plant, equipment and materials to prevent pollution
- Ensure proper mitigation measures are in place to ensure personnel receive environmental inductions and toolbox talks and that the personnel can identify environmental hazards
- Ensure environmental complaints and incidents are actioned in an appropriate and timely manner and are communicated to the client. Support the investigation and actions as necessary.

6.3. Archaeological Supervision of Topsoil Removal

It is not anticipated that there will be archaeological finds on the route, if this is found to be the case; a specialist will be engaged to supervise topsoil stripping.

6.4. Clients Representative on Site

The clients representative on site will approve or comment on all project construction method statements and environmental management plans and procedures proposed by the contractor and ensure compliance with the contract documents.

6.5. Environmental Training and Awareness

The work crews assigned by the contractor to construct the proposed greenway and delivery drivers entering the site shall be made aware of the sensitivity of the site to bird disturbance, particularly across the slob land adjacent the North Slob sea wall. Staff should be provided with a copy of this document and given site induction on the contents of this document.

The clients representative and the ecological clerk of works will make regular site inspections and among other things will ensure that bird disturbance and other environmental issues are being managed correctly.

The contractor shall ensure that all staff on site have the required training.

- All staff shall have a FAS Safe Pass Certification.

- All staff shall receive a Safety Induction on site.
- All staff shall receive an Environmental Awareness Induction on site.
- All operatives are trained and competent to complete the tasks assigned and expected within the works contract.
- Environmental Toolbox Talks.
- All staff using plant equipment shall have the relevant CSCS certificates (tickets) for the proposed plant on site.
- The client and/or the client's representative on site shall inspect and may request at any time the production of any the above certificates / tickets by any staff member.

It is expected that site crews will follow work methods agreed between the client's representative and the contractor from the outset to minimise any adverse impact on the designated special areas.

6.6. First Aid & Incidents

The extended nature and remoteness of this project will require additional consideration by the contractor to ensure the safety of the work crews. First aid equipment and trained operatives must be available to all work crews.

The contractor shall consider access routes for emergency vehicles should an incident occur on site. These routes are not limited to the construction routes which are predefined for these works. The contractor should liaise with the adjacent landowners in advance of the works to outline where emergency access could be achieved and outline these routes on maps, advise supervising staff and include the maps in the Health & Safety Plan for the works.

6.7. Emergency Response Plan

An emergency response plan for the site is to be developed prior to the commencement of construction.

Main site hazards included working near water, contact with overhead or underground services, portable tools, construction vehicles, fire and fall from heights.

Inspection & Emergency Response

- Regular inspection of tanks and bunds must be carried out to check for leaks and ensure other material is not stored within the bunded area, thus reducing capacity. This may be carried out as part of the Environmental Inspection.

- Emergency spill kits must be available on site at all times, with adequate stock of absorbent materials, and staff trained in their correct use and disposal.
- Know the appropriate authorities to notify, if required, and emergency services to contact if the spill is beyond the capacity of the site resources to contain. The emergency contact list may include details for:
 - Emergency Services;
 - The Local Authority;
 - Inland Fisheries Board;
 - The Coast Guard;
 - The Health & Safety Authority;
 - NPWS
 - OPW
 - Specialist clean up and waste disposal contractors.

During the construction phase the construction manager will be responsible for ensuring there is suitable access for emergency services.

7. PROGRAMME

An outline programme has been prepared for the project. The programme outlines the timeframes from the preliminary design stage to on-site construction stage. The programme breaks down the construction stage into three sections. The first 800m of the site from Ferrybank is not restricted by the winter closure and work in this section may be scheduled over the full duration of the contract period.

Similarly final section of the greenway which extends the full length of the Raven Wood is not restricted by the winter closure, however this section is in a designated SAC area and consideration should be given to expedite the work in this section to limit the duration of work to a minimum.

The mid-section from chainage, 800m to 7,100m, which includes the Slaney Valley SAC and the Wexford Harbour and Slob pNHA is restricted from winter working and the construction programme shall align work to commence after 15th April and finish by the 15th September regardless of what time of the year that the contract is signed. This is due to the presence of the Hen Harrier and the Greenland white-fronted goose in Winter.

Outside of the winter closure, the construction of the screening along the edge of the Burgess SAC should occur as soon as possible to reduce construction impact on the adjacent habitat and species. The secure gates should be constructed as soon as possible also.

A breakdown of an outline programme is attached in Appendix B.

8. MONITORING

The importance of the annex species listed for the Wexford Harbour and Slob SPA requires the on-going monitoring of the greenway corridor during construction and for a number of years post construction. The monitoring shall test the effectiveness of the proposed mitigation measures with actual bird survey counts and behaviour analysis to the new greenway. This monitoring shall be carried out by a trained ecologist and a report of each inspection shall be prepared and reviewed at the start and finish of each season that the greenway is active.

The ecologist shall where necessary recommend adaptive mitigation measures to be implemented by the greenways management team, provide advise during the implementation of measures and further monitor the effectiveness of any adaptive measures once deployed.

Adaptive mitigation may be required during the construction stage. The client's representative may need to liaison with the main contractor to ensure the effective implementation of the revised measures. The implementations of these measures may result in client changes to the contract and or extensions to the contract duration.

The Greenway Manager, the warden and the greenways management team will implement or arrange to have implemented via contractor any adaptive measures identified during the operation phase.

Monitoring proposals set out in the NIS and in this report are detailed below. This list will be used in the future for auditing also.

Monitoring Measure	Survey/ Monitoring	Reporting frequency	Responsibility
Pre-Commencement			
Surface water	An inspection of existing drainage and a maintenance plan for on-site drainage including the locations of the temporary silt traps will be prepared before works commence	Once	Site Manager
	Monitor Water Quality, turbidity, suspended solids etc. in selected watercourses and at the pump station.	Once pre, Monthly	Site Manager
Invasive Species	A report to be completed pre-commencement to identify and detail the location of the invasive species on site. May and June is the optimal survey season. A management plan and measures to be included if invasive species are identified. The national Roads Authorities (NRA) Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads (2010)	Once-Pre-commencement	Client/ Contractor to engage Ecologist
Mammals	A report to be completed pre-commencement to identify mammal paths and detail the location of any existing/new fauna passes required. This will include bats and otters as a minimum. (Ref. NIS Section 6.1.2.8)	Once- Pre-commencement	Client/ Contractor to engage Ecologist
Protected Plant Species	A report to be completed pre-commencement to identify and detail the location of any protected plant species. The Client will liaise with the County Botanist as required.	Once- Pre-commencement	Client/ Contractor to engage Ecologist
Ground and Hedge Nest Survey	A report to be completed pre-commencement to identify and detail the location of any ground and hedge nests and to identify any limitations or mitigation measures required.	Once- Pre-commencement	Client/ Contractor to engage Ecologist

Monitoring Measure	Survey/ Monitoring	Reporting frequency	Responsibility
Construction Phase			
Road Cleanliness	A report to be completed on the standard of cleanliness and planned road sweeper requirements.	Weekly	Site Manager
Traffic Management Plan	Detailed traffic management plan to be provided to Clients Representative for approval.	Weekly	Site Manager
Surface water monitoring	Monitor the turbidity (suspended solids) levels at relevant locations and the pump station	Weekly	Site Manager.
Surface water monitoring	Monitoring the effectiveness of the silt fences during the construction works, visual checks for evidence of oil and silting.	Weekly	ECoW
Monitoring of SAC at Burgess	ECoW will demarcate the habitat prior to construction. The ECoW will be present during construction works and will monitor the habitat. Ref. NIS section 6.1.2.3.	Daily during construction works at SAC	ECoW
Effects on Winter Geese	Greenland white-fronted goose will be monitored by the ECoW during the construction works outside of the slob section winter closure section for signs of disturbance. If disturbance is noted works will cease immediately until winter closure period. Ref. NIS section 6.1.3.3.	Weekly	ECoW
Effects on the Hen Harrier	Hen Harrier will be monitored by the ECoW during the construction works outside of the winter closure section for signs of disturbance. If disturbance is noted works will cease immediately until winter closure period. Ref. NIS section 6.1.3.12.	Weekly	ECoW
Effects on Otters	Otter activity will be monitored by the ECoW during the construction works. The ECoW will identify mammal passage routes along the working area which must not be obstructed as a result of construction. Ref. NIS section 6.1.2.8.	Weekly	ECoW

Monitoring Measure	Survey/ Monitoring	Reporting frequency	Responsibility
Waste Management Records	A report on the quantities of waste generated, stored and exported off site will be given to the Clients Representative. This will include all Waste Collection Permits and Waste Facility Permits used.	Monthly	Site Manager
After Storm or Snow events	An assessment on the effects of the storm to be carried out after any storm events.	As required	Site Manager
Litter on site	Litter is to be kept to zero on site. Litter monitoring to be carried out and results reported.	Weekly	Site Manager
Unauthorised site access	If unauthorised site access is noted during construction measures are to be taken by the contractor to prevent further unauthorised access.	Daily	Site Manager
Audit for compliance with Method Statement and Environmental Management Plan(MS/EMP)	Document the compliance or otherwise with Method Statement and Environmental Management Plan.	Monthly	ECoW
Leaking equipment.	Vehicle operator to check vehicle daily for leakage. Site Manager to visually check all site vehicles weekly for leakage. Remove from site immediately if leaking.	Daily	Site Manager
Bund integrity	Bund test to be carried out on fuel bunds at the compounds.	Once at Start of Project	Site Manager
Incident investigation	Log and investigate all incidents as soon as feasible and report to Clients Representative	As occurs	Site Manager

Monitoring Measure	Survey/ Monitoring	Reporting frequency	Responsibility
Operational Phase			
Operational Phase Check: Open Season- 15 April to 15 September	Check and report on litter, graffiti, dog fouling, effectiveness of site security, vandalism on site, antisocial behaviour, camping, unauthorised access to Slob or sea wall or off route in the Raven, unauthorised use by horse-riding or motorised vehicles	Daily	Warden
	Check for presence of invasive, other weeds and hedge status. Check for any drainage issues. Raise action items.	Monthly	
Operational Phase Check: Closed Season- 15 September to 15 April	As above for the open section.	Daily/Monthly	Warden
	Maintenance checks of the mid-section of the greenway, Ch 3,700-7,100m, during the closed period must be carried out from a vehicle. Persons must not leave the vehicle on this section of the route during the closed period unless there is no risk of disturbance to feeding Greenland white-fronted geese. Ref. NIS Section 6.1.3.3.	As infrequently as possible-to be discussed with NPWS.	
After Storm or Snow events	An assessment on the effects of the storm.	As required	Warden
Effectiveness of mitigation measure on birds & mammals.	Ecological report. Bird Counts and Surveys to assess effect or lack thereof of greenway on roosts and feeding, that the human activity is not adversely affecting the winter birds or mammals. In particular the hen harrier and the Greenland white-fronted goose will be monitored. Ref. NIS Section 6.1.3.3.	Annually for 5 years after greenway opens	Client appointed Ecologist
Survey for dunes and salt marsh at Burgess.	Carry out a survey to confirm the effects/lack thereof from the greenway on the habitats, erosion, and invasive species.	Annually for 5 years after greenway opens	Client appointed Ecologist

Monitoring Measure	Survey/ Monitoring	Reporting frequency	Responsibility
Track Usage	Analyse usage and impact	Quarterly	Greenways Manager
Complaints and Incident investigation	Log and investigate all incidents and complaints as soon as feasible and report to Clients Representative	As occurs	Greenways Manager
Site security	Check CCTV logs. Check fencing and gate integrity.	Weekly	Warden
Wear and tear	Survey the greenway and schedule any routine maintenance required.	Annually	Greenways Manager
Maintenance	Maintenance works between Chainage 800m and 7200m is not to occur during the closed period ie. 15 September to 15 April. This is due to the hen harrier and winter geese breeding season. Ref. NIS Section 6.1.3.3.	On-going	Greenways Manager

9. COMPLIANCE AND REVIEW

9.1. Site Inspections

Routine inspections of construction activities will be carried out frequently by the Ecological Clerk of Works and the Construction Manager to ensure all controls to prevent environmental impact are in place as construction activities progress.

Environmental inspections will be undertaken by the ECoW and will ensure compliance with this Environmental Management Plan (EMP) which will be further developed by the contractor and approved by the Clients Representative as the project progresses.

Environmental inspections will take place during the operational phase also by the Warden.

9.2. Auditing

Environmental Audits will take place during the construction process to detect any non-compliance with the Environmental Management Plan and to ascertain the underlying causes of same. Opportunities for Improvement will also be identified and put into action. Environmental Audits will be carried out by the Construction Manager or by a company acting on their behalf. Typically environmental audits will occur monthly during the construction of the greenway.

Definitions are as follows:

Major Environmental Non-Conformance: No evidence of adherence to the project environmental requirements including policy, procedures, process instruction and legislation or where there is a significant and/or immediate potential for pollution to occur or a complete breakdown of the EMP

Minor Environmental Non-Conformance: Limited evidence of adherence to a procedure/process instruction or an occurrence which may breach the EMP with the potential to cause environmental pollution or any breach of the project environmental performance requirements, including policy and procedures and other statutory or contractual requirements.

Major Environmental Incident: any situation which has resulted in significant pollution requiring high level of resources for response and remedy and must therefore be reported to Management, the Client and/or any relevant statutory authority.

Minor Environmental Incident: any situation which has resulted in environmental pollution which requires minimal action to aide recovery from Management. Non reportable to the Client and/or any relevant statutory authority.

Environmental Near Miss: any undesired event which, under slightly different circumstances would have resulted in harm to the environment.

Identification of Environmental Non-Conformance / Incident: During the inspection or audit, any environmental non-conformances or environmental incidents shall be recorded in an Environmental Inspection Report.

For any non-conformances the following shall be noted:

- Location
- Brief description
- Contractor responsible (if applicable)
- Action required / taken

If any major or minor environmental non-conformance is detected during the inspection or audit, the Site Manager shall ensure remedial action will be undertaken within an acceptable timeframe to rectify the matter.

Any major or minor environmental incident should be reported to the Site Manager immediately. Depending on the nature of the incident there may be a requirement to report to the Client and/or relevant regulatory authority.

9.3. Environmental Compliance

Any environmental near misses, incidents, exceedance events or non-compliances will be reported as soon as possible to the Ecological Clerk of Works and the Client's Representative.

Compliance with the identified requirements will be established, implemented and maintained before works commence and reviewed during internal audits. These issues are included in EMP. A checklist is noted below which identifies the typical documents and records that should be reviewed. Due to the volume of environmental legislation, only reference will be made to legislation which applies to individual projects such as requirements for discharge licences or appropriate assessments.

Checklist of compliance requirements (note: this is not a comprehensive list):

Issue	Records Required	Compliance Documents
Water Quality	Water Quality Reports. Records of visual inspections of watercourses. Records of silt trap locations.	Local Government (Water Pollution) Act 1977&1990 Planning Conditions
Noise Levels	Noise level monitoring	Planning Conditions
Air Quality	Dust level monitoring records	Planning Conditions
Habitat, Flora and Fauna Protection	Ecology surveys and reports Records of visual inspection of protected areas	Wildlife Act 1976 (as amended) Flora Protection Order 1999 EC (Natural Habitats) Regulations 1997-2005 EC (Birds & Natural Habitats) Regulations 2011
Waste	Copies of Waste Permit and Waste Collection Permits Records of visual inspections of waste skips and areas. Records of litter levels on site	Waste Management Act 1996 (as amended) Waste Management (Collection Permit) Regulation 2001 (as amended) Waste Management (Facility Permit & Registration) Regulations 2007 (as amended)

9.4. Corrective Action Procedures

A corrective action will be implemented to rectify an environmental issue on site. Corrective actions will be implemented by the Construction Manager as advised by the Ecological Clerk of Works. Corrective actions may be required further to:

- An Environmental Audit
- An Environmental Inspection
- Environmental Monitoring

- Environmental Incidents
- Environmental Complaints

A Corrective Action Notice will be used to provide details of the actions required to the main contractor. It will describe the cause and effect of the environmental problem on site and the recommended corrective action required. Each Corrective Action Notice must be closed out within a suitable timeframe.

10. COMPLAINTS & INCIDENTS PROCEDURE

The Contractor will establish and maintain a Complaints and Incidents Register for internal communication and for receiving, documenting and responding to environmental complaints from external parties. The following process must be followed when complaints are received.

- All complaints received from external sources must be reported to the Construction Manager, the Ecological Clerk of Works and the Client.
- Complaints will be investigated on site as soon as possible after the complaint has been received.
- All environmental complaints will be recorded in the project Complaints Register.
- The Register is maintained by the Ecological Clerk of Works, who also allocates responsibility for resolving any issues and follows up complaints to ensure they are resolved.
- Any issues to be resolved or followed up must be added to the Site Action Register by the Ecological Clerk of Works or the construction manager and all actions closed out and dated where applicable
- Complaints should be reported to relevant authorities depending on Contract Documents and agreements
 - The Local Authority
 - The Inland Fisheries Board
 - NRA
 - Harbour Master
 - Department of Environment, Heritage and Local Government
 - National Parks and Wildlife Service
 - Wexford Wildfowl Reserve
 - Birdwatch Ireland
 - Other relevant authorities/3rd parties required per construction contract.
- Complaints will be forwarded to the Client and Construction Manager for review.
- Complaints are reviewed during internal audits.

The following procedure must be followed when an environmental incident occurs:

- Environmental Incident is noticed or information regarding the incident is received
- All information must be reported to the Construction Manager and the Ecological Clerk of Works as soon as possible.

- Depending on the nature of the incident, it may have to be reported to the Client and relevant Regulatory Authorities.
- Environmental Incidents will be investigated immediately and corrective actions taken to remedy the situation.
- All plant/equipment etc which may have caused or been related to the environmental incident must be stopped immediately and taken away from the incident site and taken out of service until the investigation has been completed and equipment rectified or removed permanently.
- All related information will be gathered concerning the environmental incident and photographs will be taken.
- All relevant parties will be spoken with regarding this matter; subcontractors, site staff, witnesses.
- When all the information has been gathered (immediate cause, basic cause and corrective actions etc.), it will be added to the 'Site reporting system'. If any further actions have to be taken, these will be agreed and timescales set.
- All environmental incidents are reviewed by the Construction Manager prior to final approval

Refer to Section 11.4 the operational phase complaint and incident procedure.

11. OPERATIONAL PHASE MAINTENANCE

The Wexford County Council (WCC) will appoint a Greenways Manager who will act as a point of contact for any issues and complaints and will manage the greenway maintenance team. The environment warden will be directed to monitor the greenway and to open and close sections as required. The warden will inspect the open section of the route weekly and after any storm. The closed section of the greenway will be inspected during the closed season less frequently and must be inspected from a vehicle only so as not to disrupt the Greenland white-fronted geese. It is noted that the NPWS drive the seawall route daily. Wexford County Council (WCC) will liaise with NPWS regarding the frequency of WCC inspections during the closed season.

A geopal mobile phone application will be used to record the weekly inspection and any issues noted. The geopal non-compliance report will be sent to the Greenways Manager and will be actioned as appropriate within an appropriate timeframe. The Greenways Manager will decide if the greenway needs to be closed until the issue has been remedied. A log of all complaints will be kept.

The geopal application is flexible, but at minimum the following will be recorded and reported:

- Litter, dog fouling, graffiti.
- Evidence of anti-social behaviour, evidence of camping, camp fires, access to the seawall, The Raven sand dunes or other lands, mis-use, access by quads/motor vehicles, horses,
- Integrity of the security gates and security fencing, CCTV in place and operational,
- Surface safe and car parking issues
- Moss, weeds.

Annual checks will be carried out by the Engineer to assess whether any major works are required, such as gate/fencing replacement, fauna pass alterations, resurfacing, car parking issues etc. Annual reports will be prepared and will note any reoccurring weekly inspection issues and proposed solutions.

If any repairs are identified, they works required will be carefully considered with regard to their impact, for example no fencing repairs shall be carried out at certain hours in the winter at the wet land during the Greenland white fronted goose feeding periods.

WCC will ensure adequate resources will be provided for in the annual budget for ongoing repairs and maintenance of the greenway and for capital funding to enable the replacement of any key infrastructure.

11.1. Greenway Management Team

The proposed greenway will be the responsibility of Wexford County Council and managed by the environment section. Greenway supervision and monitoring shall be carried out by authorised community wardens. The greenways manager will be appointed to manage the day to day operation of the greenway and the role will include;

- Act as point of contact for any greenway issues.
- Draft and implement a greenway monitoring regime.
- Manage the wardens assigned to monitor the greenways.
- Supervise and action all complaints.
- Liaise with landowners about on-going maintenance or any greenway issue.
- Draft and implement a greenway maintenance regime.
- Manage the greenway maintenance team.

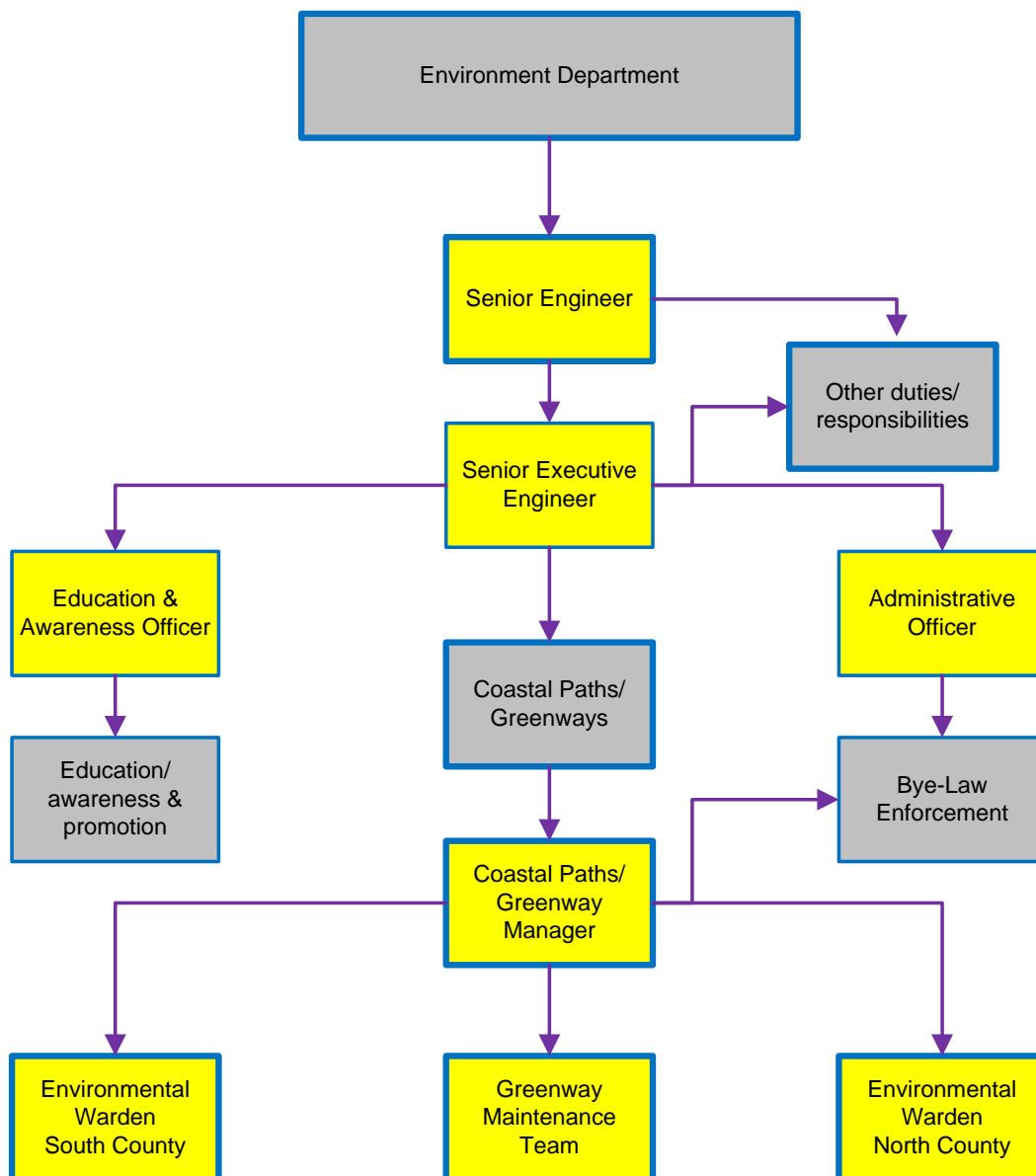


Figure 13 Greenway Management Flow Chart

11.2. Greenway Monitoring

It is Wexford County Councils intention to provide a warden to monitor the greenway and users plus deal with litter and any other minor maintenance issues that may arise. The warden would inspect the open sections of the greenway and loops at daily but could inspect more frequent if the need arose or complaints were received.

Maintenance checks on the mid-section will be as in frequent as possible during the closed period. Maintenance checks of the mid-section of the greenway, Ch 3,700-7,100m, during the closed period must be carried out from a vehicle. Persons must not leave the vehicle on this section of the route during the closed period unless there is no risk of disturbance to feeding Greenland white-fronted geese. Ref. NIS Section 6.1.

11.3. Night Time Closing

The proposed greenway would be closed from dusk until dawn but not later than 9pm in the summer season. It is proposed to place lockable gates at the Ferrybank caravan park and similarly secure lockable gate at the Ardcahan Lane near the proposed car park. The warden would be assigned the task of locking and unlocking the gates on a daily basis. The warden would walk or cycle the full route between Ferrybank and Ardcahan to ensure that all users had vacated the greenway before locking the gates. The task of confirming the route is clear prior to locking would double up with greenway maintenance check.

11.4. Complaints and Incidents Procedure

Signage on the four secure gates at the four main public access points will have the Environment Section phone number and the Wexford County Council Emergency 24 hour phone number.

During office hours complaints will be logged with Wexford County Council staff. These complaints would be recorded on the environment complaints system and assessed by environment complaints desk staff. The greenways manager or the warden would then be contacted by phone or email as appropriate so he/she could respond. A series of internal protocols would be developed to deal with different complaints and particularly emergency situations or safety concerns. Any incidents reported or noted by staff will be recorded on the complaints system. Complaints would be assessed periodically to assess any re-occurring issues.

Out of hours issues or emergencies will be dealt with by the senior environment staff member on call and will be actioned as appropriate.

11.5. Implement Adaptive Mitigation Measures

The importance of the annex species listed for the Wexford Harbour and Slob SPA requires that on-going monitoring of the greenway corridor during construction and during the operational phases. The monitoring shall test the effectiveness of the proposed mitigation measures with actual bird survey counts and behaviour analysis to the new greenway. This monitoring shall be carried out by a trained ornithologist and a report of each inspection shall be prepared and reviewed at the start and finish of each season the greenway is active. See the monitoring proposals section for further information.

The ornithologist shall where necessary recommend adaptive mitigation measures to be implemented by the greenway management team, provide advice during the implementation of measures and further monitor the effectiveness of any adaptive measures once deployed. The performance of particular measures of importance shall be observed, these include the effectiveness of the secure gates and fencing on the greenway at the slob, confirm the durability of the fencing erected, the

effectiveness of the screening provided and feeding habits of geese adjacent the screens.

11.6. Maintenance Programme

As with all infrastructure projects a maintenance programme is required to ensure that a high quality facility is provided not just in the first year but also subsequent years, this is especially the case with public and tourist facilities. Wexford County Council has extensive experience in developing and maintaining trails and a maintenance plan will be developed by the greenways manager. The Greenway Management Team has the training, skills and equipment to maintain the greenway and currently undertake maintenance task on other trails around the county.

No maintenance works within the Slob (Chainage 3,700m-7,100m) shall occur between 15 September and 15 April. This is the geese winter feeding season.

No maintenance works shall take place at the Slaney Valley SAC (Chainage 800m-2500m) during this period also due to Hen Harrier roosting season.

If an item is noted as having an adverse effect on the Greenland white-fronted geese, through consultation with NPWS, it may be agreed that minimal maintenance works to remove the adverse effect could be carried out along the mid-section of the route during the closed period. This work would be carried out over a short time period and potentially at a time when the geese are at roosting sites on the sandbars south of the Raven Point. In this way maintenance works along the route within the mid-section would be visually screened from the roosting sites by the sea wall. Ref. NIS section 6.1.4.3.

Maintenance works near the hen harrier roosts in the Slaney Valley SAC (Ch 800-2500m) will be timed to occur outside of the winter period to avoid unnecessary disturbance to the roosting hen harrier. Ref. NIS section 6.1.2.3.

11.7. Greenway Maintenance Plan

A bespoke greenway maintenance plan would be drafted. The plan shall set out in accordance with Sports Ireland Trails 2017 'Guidance Notes for Local Trail Monitors' and Sustrans 2016 'Greenway Management Handbook'. The plan will include trail monitoring schedule, trail monitoring forms to record issues, trail maintenance work planner templates, weekly record sheets of actual maintenance carried out and whether by the greenways management team or external contractor. The plan shall also maintain records of all members of the greenway management team and track their training needs. An up to date copy of all training certificates / ticket shall be included in the plan and vetted by the greenways manger from time to time.

The greenway maintenance plan shall typically include the following crew tasks;

- Erect additional marker post, signage and finger posts if required.

- Ensure information and educational signs at trailheads and along route are in place and clean.
- Clear debris off greenway and clear back under growth.
- Pick litter and remove waste.
- Cut low hanging branches with hand saw.
- Surfacing of the greenway with dust / grit / granular material. This may include hauling in material with bobcat / dumper / quad, etc.
- Lay shallow land drains across paths where ponding / soft areas occur.
- Place granular material to build up path to remove dips, soft areas or trip hazards.
- Install seating benches.
- Install user counters on trees or posts.
- Construct short sections of boardwalk over soft areas / flooding areas.

11.8. Greenway Accreditation

Prior to the trail becoming operational Wexford County Council will seek accreditation of the trail by Sports Ireland Trails (formerly National Trails Office).

The trail will be inspected near completion by Sports Ireland trails inspectors and a report given to the trails officer. Any rectifications in the report shall be actioned on before a final Sports Ireland Trails inspection is made. The Greenway will then become an official trail and be registered on the Sports Ireland Trails Database and website.

11.9. Insurance

Once a trail receives Sports Ireland Trails accreditation, the trail will be insured under the Irish Public Bodies (IPB) trail insurance policy which covers public liability insurance. The Sports Ireland Trails inspection process is part of the NTO insurance policy and routine trail inspections must be made and up loading to Sports Ireland Trails website to maintain insurance coverage.

12. DECOMMISSIONING

In the event that the greenway is found to be unsuccessful or to have had a significant unforeseen negative impact on the ecology the greenway may be decommissioned in part or in full. Signage, viewing platforms and CCTV will be removed. Further to consultation with the NPWS and farmer and if it was of benefit to these stakeholders and not a negative on the flora and fauna, the macadam surface, fencing and screening would be left in place for farm access at the slob lands and as access control to the Wildfowl Reserve. Any works would take place between 15 April and the 15 September.

Costs would be borne by Wexford County Council.

Appendix A Maps & Drawings

- MAP 1- Route outline with leg 1, 2 and 3 identified.
- OCMS1- Construction Routes and Temporary Compound Locations
- OCMS2- Special Protection Areas: Wexford Harbour and Slob; The Raven SPA
- OCMS3- Proposed Natural Habitat Areas: Wexford Harbour and Slob
- OCMS4- Special Conservation Areas: Slaney River Valley, Raven Point Nature Reserve
- OCMS5- Construciton Compounds
- OCMS6- Fencing types
- Photomontage of the Raised Boardwalk at Burgess SAC
- Photomontage of the Screening at the Wildfowl Reserve

(Note: Refer to a separate book containing project drawings and standard details)

Appendix B Outline Works Programme

Appendix C Propose Bye-Laws for the Greenway



COMHAIRLE CONTAE LOCH GARMAN

WEXFORD COUNTY COUNCIL

BYE-LAWS FOR WEXFORD TOWN TO CURRACLOE GREENWAY 2018

Made under Section 199 of the Local Government Act 2001 for the use, operation, protection, regulation and management of the use of the Wexford Town to Curracloe Greenway owned, controlled and managed by, or in the charge of Wexford County Council

Explanatory.

These Bye-Laws are for the control and regulation of the use of the Wexford Town to Curracloe Greenway (hereinafter referred to as “the Greenway”).

These Bye-Laws are in force to ensure that Greenway provided as a public amenity, are used by members of the public to the maximum extent in safety and comfort.

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1. Definitions:-

These Bye-Laws shall be cited as “Wexford County Council Wexford Town to Curracloe Greenway Bye-laws 2018.”

In these Bye-Laws

1.1 “Greenway” shall mean a 10.7km surfaced public pathway starting at the Ferrybank Caravan/Camper Park and ending at the Beach entrance at Culleton’s Gap, Curracloe, known as the Wexford Town to Curracloe Greenway. See the map in Appendix 1 to these Bye-Laws.

1.2 “Council” means Wexford County Council.

1.3 “Employees of the Council” shall include every Environment Warden, Beach Warden, Dog Warden, supervising official, park ranger, or other person employed by and duly authorised by the Council.

1.4 “Authorised person” means an authorised person within the meaning of section 204 of the Local Government Act 2001.

1.5 “Waters” shall include all bodies of water such as rivers, streams, lakes, ponds, reservoirs, canals, wetlands whether natural or artificial.

1.6 “Mechanically Propelled Vehicle” is defined as follows:

A vehicle intended or adapted for propulsion by mechanical means, including

a) A bicycle or tricycle with an attachment for propelling it by mechanical power, whether or not the attachment is being used.

b) A vehicle the means of propulsion of which is electrical or partly electrical and partly mechanical but not including a tramcar or other vehicle running on permanent rails.

2. Opening and Closing of Greenway entrances where access is controlled by lockable gates/barriers on Section 2 of the Greenway:-

2.1 Entry and exit to and from a Greenway shall be gained only through the authorised access points.

2.2 Such entrances shall be open to the public on such days and during such hours as shall be fixed and displayed by the Council from time to time.

2.3 The opening and closing hours of Greenway entrances will be subject to variation by the Council as circumstances require.

2.4 No unauthorised person shall enter or remain in any part of a Greenway outside of opening hours.

3. Traffic:-

3.1 Save with the permission of the Council, no person shall bring onto the Greenway any Mechanically Propelled Vehicle which includes for the avoidance of doubt motorcycles, motor-cross / quad bikes or other powered vehicles. Such vehicles may be removed from the Greenway by An Garda Siochana or Wexford County Council.

3.2 Where a Mechanically Propelled Vehicle is permitted access to the Greenway (e.g. Council fleet, commercial suppliers, emergency services), the vehicle shall be driven carefully subject to a maximum speed limit of 20kph on the authorised routes within the Park, other than where expressly permitted by the Council.

3.3 A Mechanically Propelled Vehicle shall be parked in car parks, where provided, or in such places as may be set aside from time to time as temporary parking places.

3.4 Car parks may only be used by users and patrons of the Greenway. No person shall carry out commercial activity or advertising in the car parks unless permitted by the Council. Further, no person shall make use of car park for “park and ride” purposes.

3.5 The use of bicycles, skateboards, in-line skates, roller-skates, non motorised scooters and similar vehicles are permitted subject to careful use and consideration for other Greenway users. A maximum speed limit of 20kph shall apply to all such vehicles with the exception of areas designated for cycle training and races by prior agreement with the Council.

4. Animals:-

4.1 Dogs:-

4.1.1 No person:

- a) Shall take into or allow to remain on the Greenway any dog unless it is under effective control on a leash.
- b) In charge of a dog on the Greenway shall engage it in coursing or permit it to be engaged in coursing in a Park.

4.1.2 Persons in charge of a dog on the Greenway shall

- a) Take reasonable care to prevent it from causing annoyance to any person using the Greenway or worrying, chasing, injuring or disturbing any animals, birds or other creatures on the Greenway.
- b) Be liable for any damage or injury which may be caused by the dog.
- c) Remove it from the Greenway if so directed by an Employee of the Council or an Authorised Person.

4.1.3 If a dog, other than a guide dog, defecates on the Greenway, the person in charge of the dog shall remove the faeces from the ground and dispose of in a proper manner or other receptacle which may be designated for the purpose.

4.1.4. These Bye-Laws shall not apply to a dog being used:

- a) In the execution of his duty by a member of the Garda Síochána or
- b) For such other purpose as the Minister for the Environment may prescribe from time to time.

4.2 Birds:-

No person shall:-

- a) Take from the Park or destroy or injure or otherwise interfere with any bird, bird's nest or bird's eggs in the Greenway and environs or ill-treat or worry any bird population or interfere in anyway with any protected species of bird on the Greenway or Environs..
- b) Partake in hawking or bring hawks or other birds of prey onto the Greenway for the sport of hawking.

4.3 Other Animals:-

No person shall:

- a) Disturb, worry or interfere with any wildlife on the Greenway & Environs.
- b) Turn out to graze on the Greenway and Environs or allow to stray or remain on the Greenway, any cattle, sheep, horse, donkey, or other animal.
- c) Lead, walk or ride a horse or donkey or any other animal on the Greenway and Environs.
- d) Enter the Greenway for the purpose of hunting.

5. General Regulations in Relation to Persons Using the Greenway:-

5.1 Materials, Features, Fittings and Furniture:-

No person shall:

- a) Climb any vehicle, tree, shrub, seat, fence, railing or wall or gateway or walk upon any flower bed or through any shrubbery, enclosed plantation or other similarly planted area on the Greenway or Environs.

- b) Damage, destroy or remove any tree, shrub or plant growing on the Greenway or Environs or pluck, cut or remove any leaf, flower, blossom, fruit, or other part of any tree, shrub or plant.
- c) Damage, deface, disfigure, write graffiti on, mark or in any way interfere with any CCTV security system, equipment, gates, seat, bench, sculpture, structure, signage, notice-board, lighting feature on the Greenway.
- d) Take or remove any soil, sand, gravel, stone or timber from the Greenway, save with prior permission in writing of the Council.

5.2 Consideration for other Greenway users:-

No person shall:

- a) Assault, threaten, molest, annoy or otherwise interfere with any person using or enjoying the Greenway in a lawful manner.
- b) Beg, gamble, use obscene or profane language, behave indecently, importune, solicit or otherwise cause annoyance.
- c) Hold or address a public meeting or religious service, save with the prior consent of the Council.
- d) Resist, obstruct or interfere with any Employee of the Council or an Authorised Officer in the exercise of his/her duty, or disobey lawful directions given by such persons.
- e) Throw any object or missile to damage or endanger any other person.
- f) Bring onto the Greenway any air-gun, catapult or any other weapon save with the prior permission of the Council for an approved competition or for practice for an approved competition and subject to the terms and conditions of such permission.
- g) Make any bonfire, fire, barbecue, possess or light any firework save with the prior permission of the Council and subject to the terms and conditions of such permission.

5.3 Waters:-

No person shall:

- a) Walk, swim, fish, or bathe, in any waters on the Greenway except in those areas which may be set aside for that purpose.
- b) Foul or pollute waters on the Greenway..
- c) Boat on any waters nor operate model aircraft/boats or engage in water sports/pursuits on Waters save with the prior written permission of the Council in

designated areas and subject to the terms and conditions of such permission.

6. Regulated and Controlled Activities:-

6.1 Trading etc:-

The following activities are prohibited on the Greenway, except in certain circumstances and in specified areas and with the permission in writing of the Council, and subject to the terms and conditions of such permission:

- a) Selling/hiring, offering, or exposing for sale any commodity of any kind whatsoever, or displaying any sign, poster, handbill, or other notice, or engaging in taking photographs for payment.
- b) Levying any charge for the participation in or viewing of any game, sport or exhibition.
- c) Erecting any tent or camp or placing or keeping any caravan or dormobile on the Greenway or Environs.

6.2 Games, musical performances, athletics, playgrounds:-

6.2.1. The following activities are facilitated on the Greenway only in designated areas of the Greenway and with the prior permission in writing of the Council and subject to terms and conditions and as directed by an Employee of the Council or an Authorised Person. In all other circumstances they are prohibited: -

- a) Musical performances (whether vocal or instrumental), dancing, concerts or other like entertainment, or the operation of any sound or video broadcasting or receiving apparatus, (radio, television, video, compact disc player, tape player or “Ghetto-blaster” etc.).
- b) Any aspect of practice or organised game of football, golf or any other game or athletics.

6.2.2. No person, club or organisation shall organise or take part in a game of football or any other game or athletics where an Employee of the Council or an Authorised Person considers the ground to be unfit for such use.

6.2.3. Any person, club or organisation who uses any non designated area for sports competition, practice or training or who contravenes any of the provisions of Clause 6.2. may be liable to have their playing facilities withdrawn.

6.2.4. No person shall act or behave in such a manner so as to prevent or disrupt the authorised playing of a game of football or any other game or athletics.

6.2.5. Playground facilities are provided only for the enjoyment of children up to 12 years of age. All such children must be accompanied by an adult.

7. Prohibited Substances:-

7.1 Drugs:-

It is prohibited to possess, ingest, supply, or offer for sale, illegal drugs or other consciousness altering substances on the Greenway.

7.2 Alcohol:-

The possession, supply or consumption of alcohol on the Greenway, save with the permission in writing of the Council and subject to such conditions as the Council may prescribe, is strictly prohibited.

8. Enforcement and Penalties:-

8.1 An Authorised Person and/or a member of the Garda Síochána shall have free and unencumbered access to the Greenway at all times whether during or outside of the official opening times, in the normal exercise of their duty, and shall not require the prior permission of the Council to gain such access.

8.2. An Authorised Person and/or a member of the Garda Síochána may request any person who appears to be committing or to have committed on the Greenway Park a contravention of any of the provisions of these Bye-Laws or who appears to be committing or to have committed in any park an offence under any Public General Act or Statute (including the Misuse of Drugs Act, 1977 or any Act amending or extending the same) or under the common law to leave the Greenway or to refrain from any activity and may remove any person failing to comply with such request from the Greenway.

8.3. Where an Authorised Person and/or a member of the Garda Síochána has reasonable grounds for believing that a person is committing or has committed on any Greenway a contravention of any of the provisions of these Bye-Laws such authorised person or member may request such person to give his or her name and address. Failure of any person to give his or her name and address when requested to do so or give a name or address that is false or misleading shall be a prosecutable offence under these Bye-laws.

8.4. A person shall not resist, wilfully obstruct, impede or refuse to comply with a request of an Authorised Person and/or a member of the Garda Síochána acting in the exercise of the functions conferred on an authorised person or on a member of the Garda Síochána by these Bye-Laws

8.5. A person who contravenes a provision of these Bye-Laws is guilty of an offence and is liable on summary conviction to a fine not exceeding € 2,500.00.

9. Fixed Payment Notice:-

9.1. If an Authorised Person and/or a member of the Garda Síochána has reasonable grounds for believing that a person is committing a contravention or has committed a contravention of a provision of these Bye-Laws the authorised Person and/or a member of the Garda Síochána may serve on the person a fixed payment notice in the general form as set out in the Schedule to these Bye Laws.

9.2. Where a notice is served under section 9.1. of these Bye-Laws a person to whom the notice applies may, during the period specified in the notice, make to the Council the payment specified in the notice, accompanied by the notice,

9.3. The Council shall receive the payment and issue a receipt for it and may retain the money so paid and no payment so received shall in any circumstances be recoverable by the person who made it, and a prosecution in respect of the alleged contravention will not be instituted during the period specified in the notice and, if the payment specified in the notice is made during that period, no prosecution in respect of the alleged will be instituted.

9.4. A fixed payment shall be served in one of the following ways-

- a) By delivering it to the person,
- b) By leaving it at the address at which the person ordinarily resides.
- c) By sending it by post in a prepaid registered letter addressed to the person at the address at which the person ordinarily resides,

10. Saver:-

Nothing in these Bye-Laws shall take away, abridge or limit any remedy existing for the time being by way of indictment or summarily, or shall interfere with the powers of the Garda Síochána or any authority legally existing for preventing or punishing offences.

11. Repeal:-

The Bye-Laws made by the Council of the County of Wexford on 1st June 1996 are hereby repealed without prejudice to any previous breach thereof.

12. Commencement:-

These Bye-Laws shall come into force on the 1st of October, 2018 (provisional).

Present when the Official Seal
of WEXFORD COUNTY COUNCIL
was hereunto affixed.

Cathaoirleach

Chief Executive

DATE

First Schedule

FIXED PAYMENT NOTICE

NAME OF LOCAL AUTHORITY: WEXFORD COUNTY COUNCIL

To: Name: _____

Address: _____

It is alleged that you have contravened the provision of Bye-Laws made under Part 19 of the Local Government Act, 2001 entitled Wexford County Council – Wexford Town to Curracloe Greenway Bye-Laws 2018.

.....
(in general terms specify nature of contravention) at

.....

on

During this period of 21 days beginning on the date of this notice you may pay the sum of Euros, accompanied by this notice, at the offices of the local authority named in this notice located at County Hall, Carricklawn, Wexford.

.....
A prosecution in respect of the alleged contravention will not be instituted during the said period and if the sum of Euros is paid during that period, no prosecution will be instituted at any time.

Signed: Date:

(Authorised Person)

IMPORTANT: Payment will be accepted at the offices of the local authority specified above and must be accompanied by this notice. Payment may be made by post. Cheques etc. should be made payable to – Wexford County Council.

A receipt will be given.

You are entitled to disregard this notice and defend the prosecution of the alleged contravention in Court.

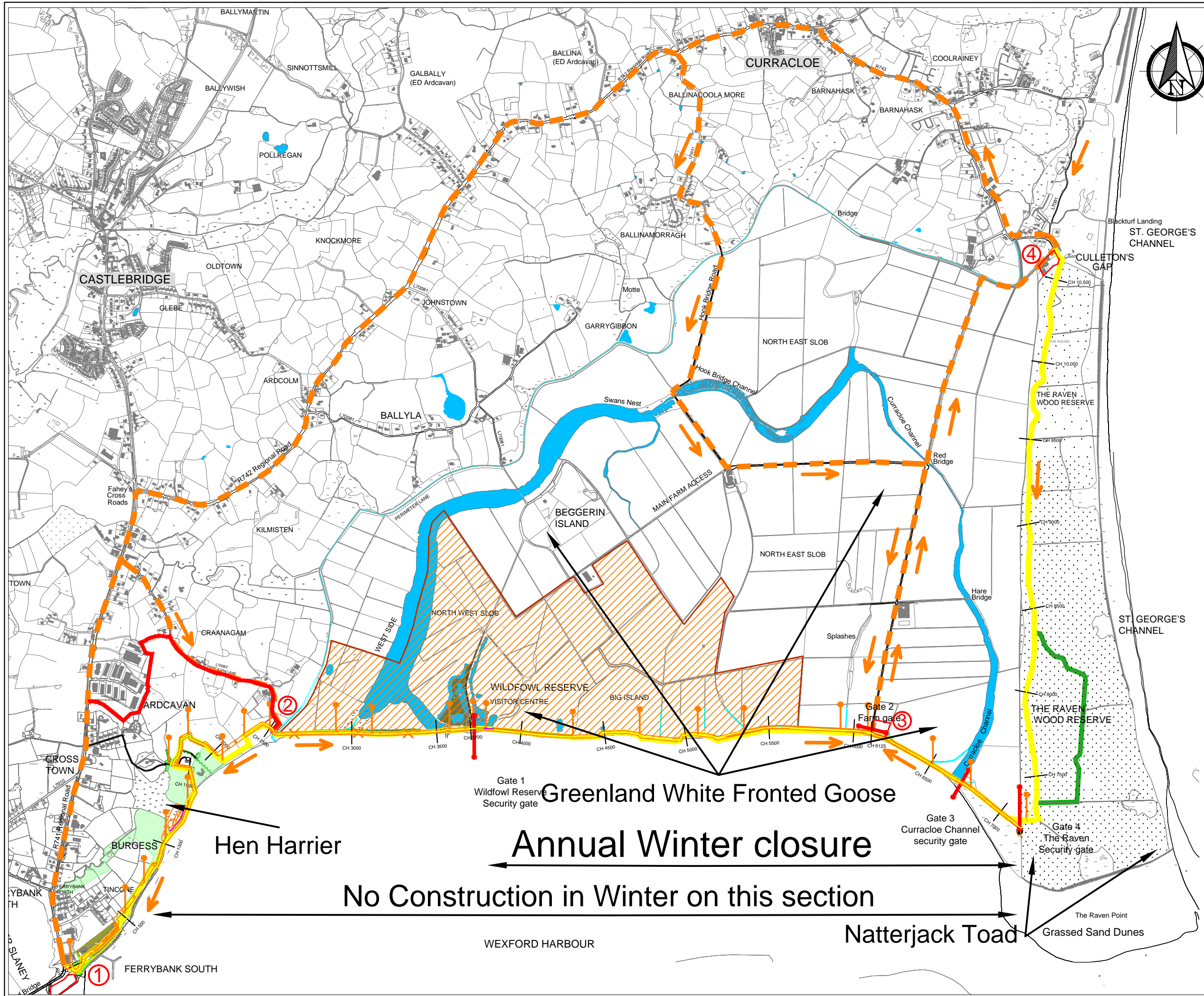


Wexford to Curracloe Greenway - Outline Programme

No.	Element	Finish Date	Duration Wk	2018												2019											
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
1	Preliminary Design																										
	Design & Cost Estimate		12																								
	AA Assessment & NIS Report	27/2/18	12																								
	Liasion with Agencies (NPWS)		24																								
	Liasion with Slob Commission		24																								
2	CPO & Land Acquisition		32																								
	Land valuation		12																								
	Purchases Offers		12																								
	Legal Sale		12+																								
	Take possession of land (2wks)		2																								
3	An Bord Phenala Planning		32																								
	Public Display	12/4/18	6+2																								
	ABP Assessment		16+																								
	ABP Decision & objection period	30/9/18	4																								
4	Detailed Design																										
	On-site Topo. Survey		4																								
	Drawings		12																								
	Documents		12																								
	Review		4																								
5	Tendering																										
	Open Tenders		8																								
	Assess & Recommend		4																								
	Achieve Bond & Sign Contract	31/3/19	4																								
6	Construction		28																								
	Mobilise on site		4																								
	Ferrybank Looped Trail		28																								
	Leg 1 & 2- Ferrybank Thro. North Slob		20																								
	Leg 3- Thro. Raven	30/11/19	28																								
	Final Account		12																								

Note:
 Programme assumes ABP decision on 16 weeks & land acquisition by landowner agreement.
 Summer Work Constraint: Leg 1 & 2- On-site work through Burgess Wetland, the Reserve & North Slob farm is limited from 15th April to 15th September.





NOTES:

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 Figured dimensions only to be used. If in doubt check with the Engineer prior to construction
 Contractor to check location of existing services with service provider, prior to construction

LEGEND:

- Slaney River Valley SAC 781
 - Wexford Harbour & Slob SPA 4076
 - The Raven SAC 710
 - The Raven SPA 4019
 - Wexford Wildfowl Reserve
 - Wexford Harbour + Slob NHA
 - 6m wide Greenway Corridor
 - 10.75 km
 - PROPOSED HAUL ROUTE
 - FERRYBANK LOOP
 - RAVEN LOOP
 - 6.1 km
 - 6.9 km
 - Temporary Site Compound Area
 - Turning and passing point
 - Passing point
 - One way construction traffic
- Temporary site compounds :
- 1 Ferrybank
 - 2 Ardcanan Lane
 - 3 Red Bridge
 - 4 The Raven

Rev.	Revision Description	Date	Int.	Ckd.

Wexford
County Council
Environment

County Hall, Carricklawn, Wexford Tel: 053-9196000
J. Carley, B.E. C. Eng. F.I.E.I. Director of Services

Project Title
WEXFORD to CURRACLOE GREENWAY

Drawing Title
OCMS 1 CONSTRUCTION ROUTE

Drawing Issue:	Drawn: G. Power	Checked: G. Forde	Date: September 2017	Scale: NTS	©A3
Planning					

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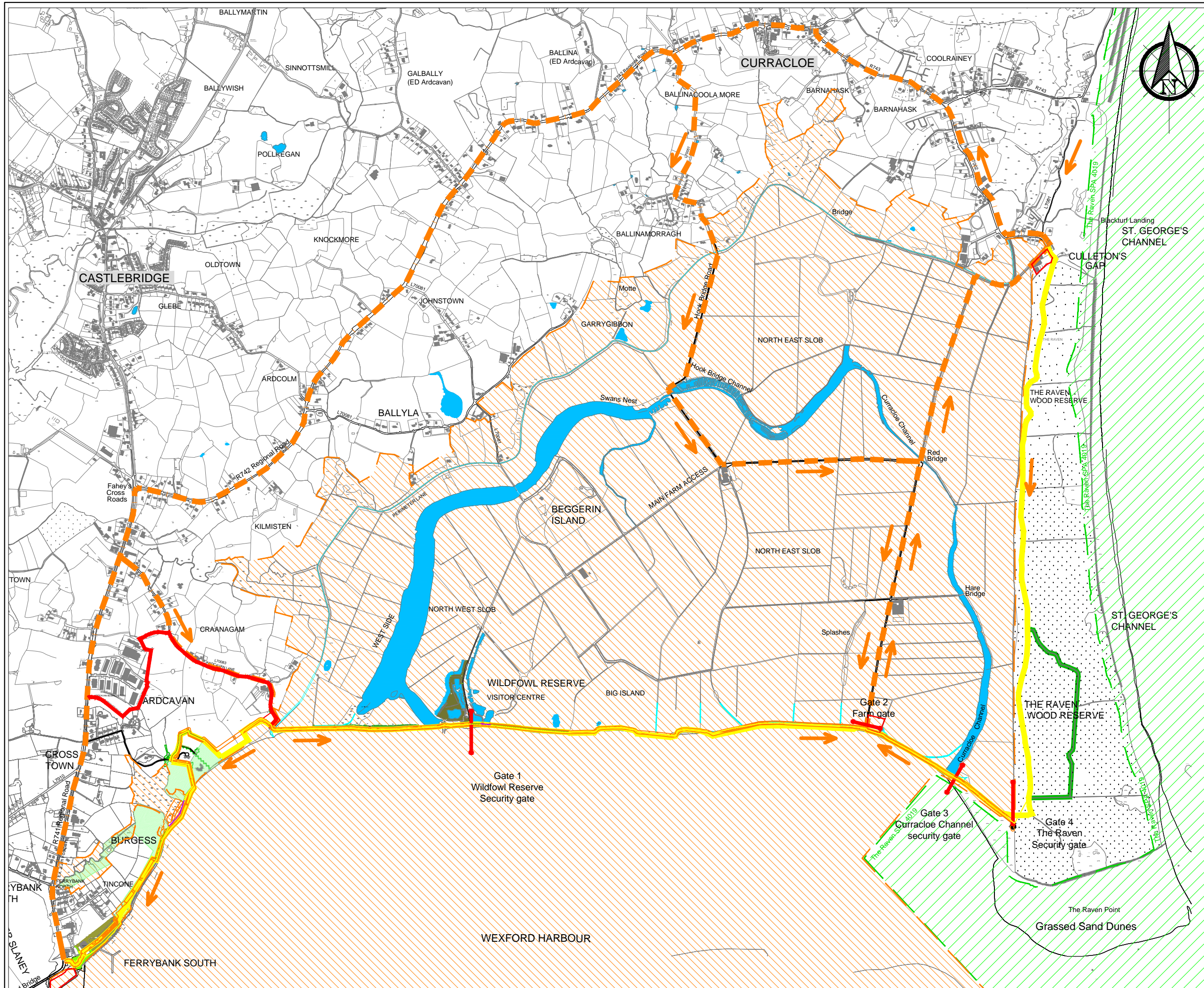
Drawing No: **1 OCMS**

Greenland White Fronted Goose

Annual Winter closure

No Construction in Winter on this section

Natterjack Toad



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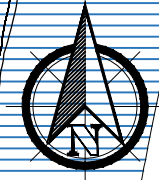
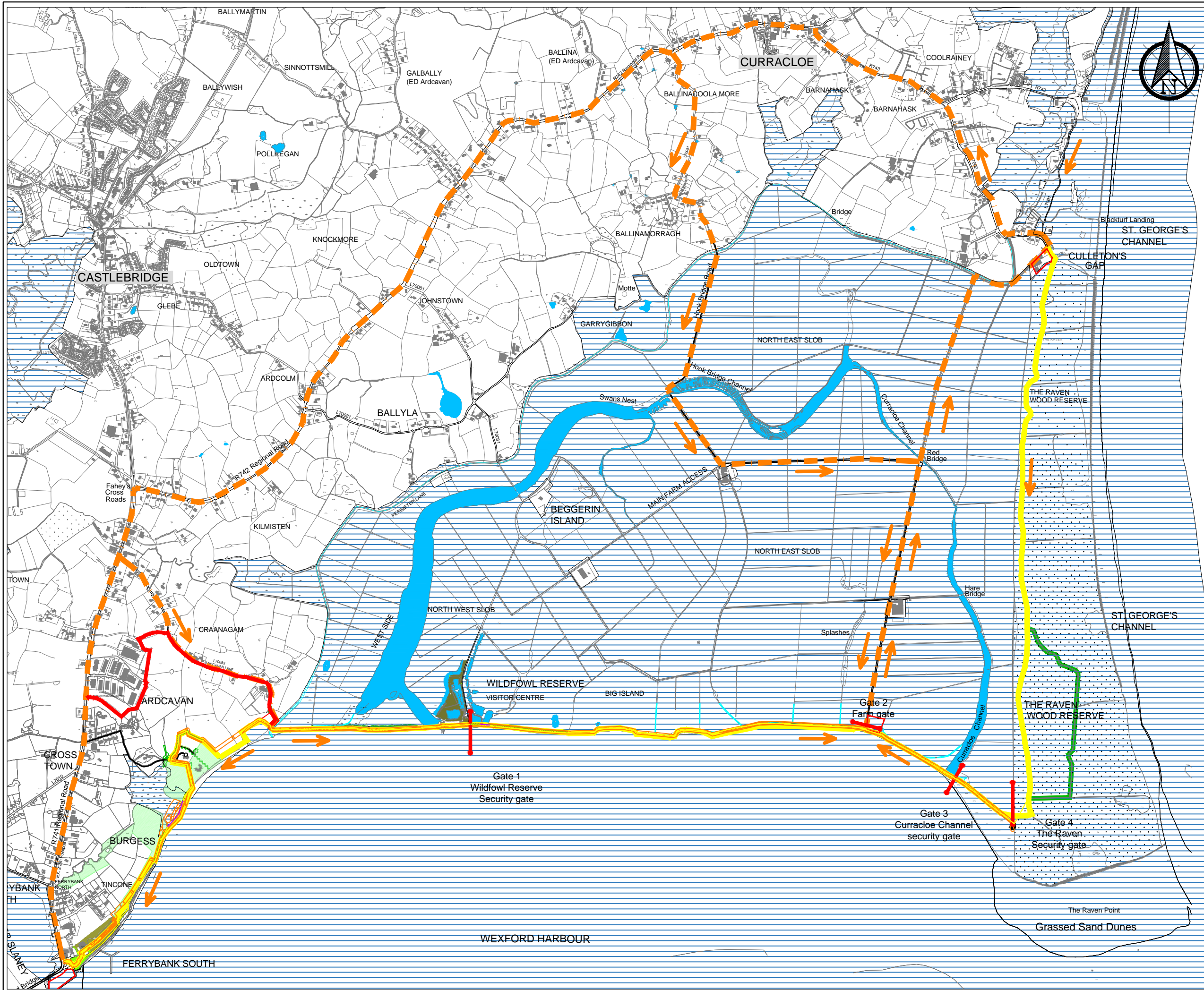
Wexford
County Council
Environment

County Hall, Carricklawn, Wexford Tel: 053-9196000
J. Carley, B.E. C. Eng. F.I.E.I. Director of Services

Project Title
WEXFORD to CURRACLOE GREENWAY

Drawing Title
**OCMS 2
Special Protection Areas**

Drawn: G. Power	Checked: G. Forde
Date: September 2017	Scale: NTS
Surveyed: @A3	



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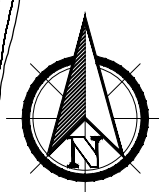
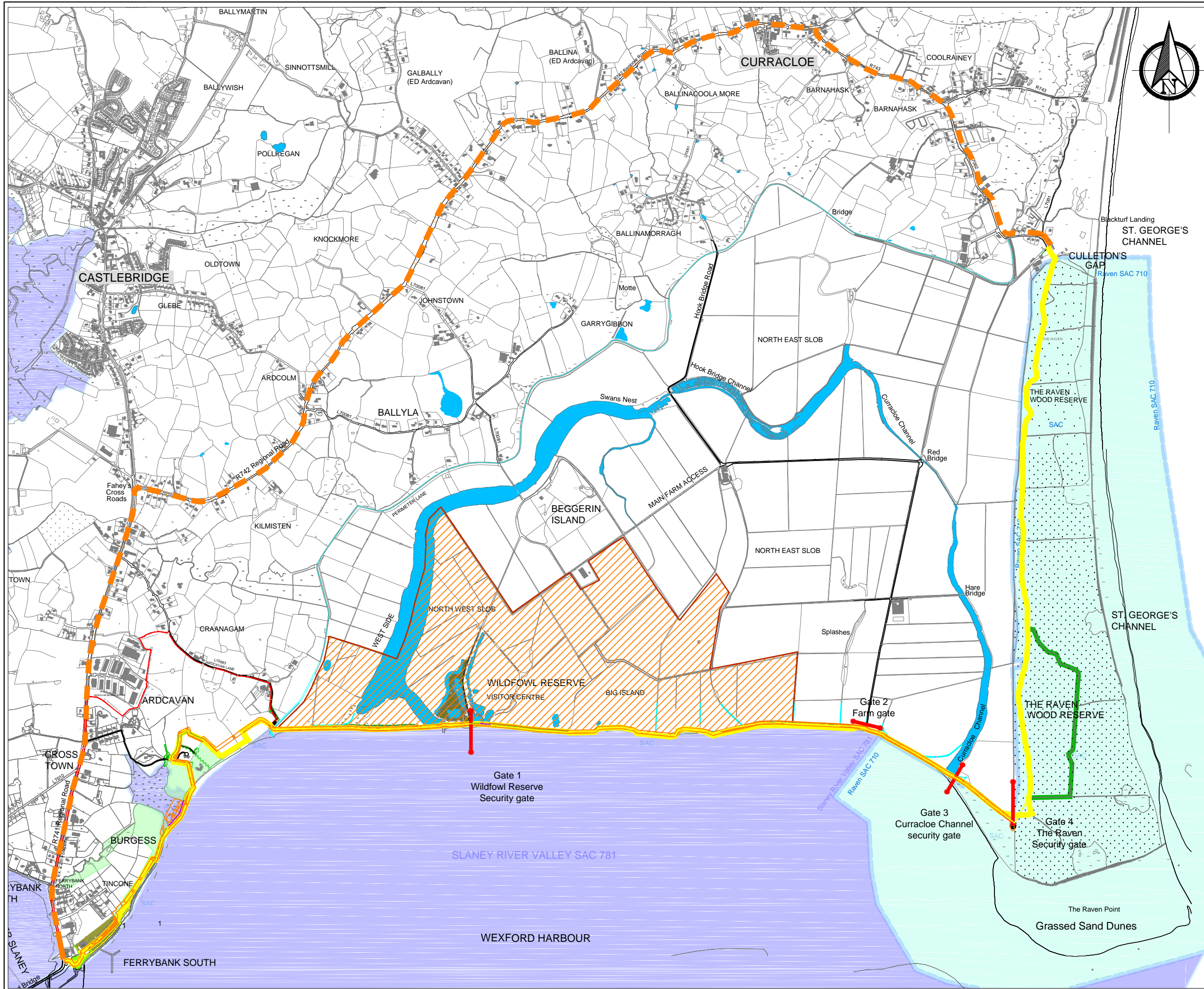
Rev.	Revision Description	Date	Int.	Ckd.

Wexford
 County Council
 Environment
County Hall, Carricklawn, Wexford Tel: 053-9196000
 J. Carley, B.E. C. Eng. F.I.E.I. Director of Services

Project Title
WEXFORD to CURRACLOE GREENWAY

Drawing Title
**OCMS 3
 Proposed Natural Habitat Areas**












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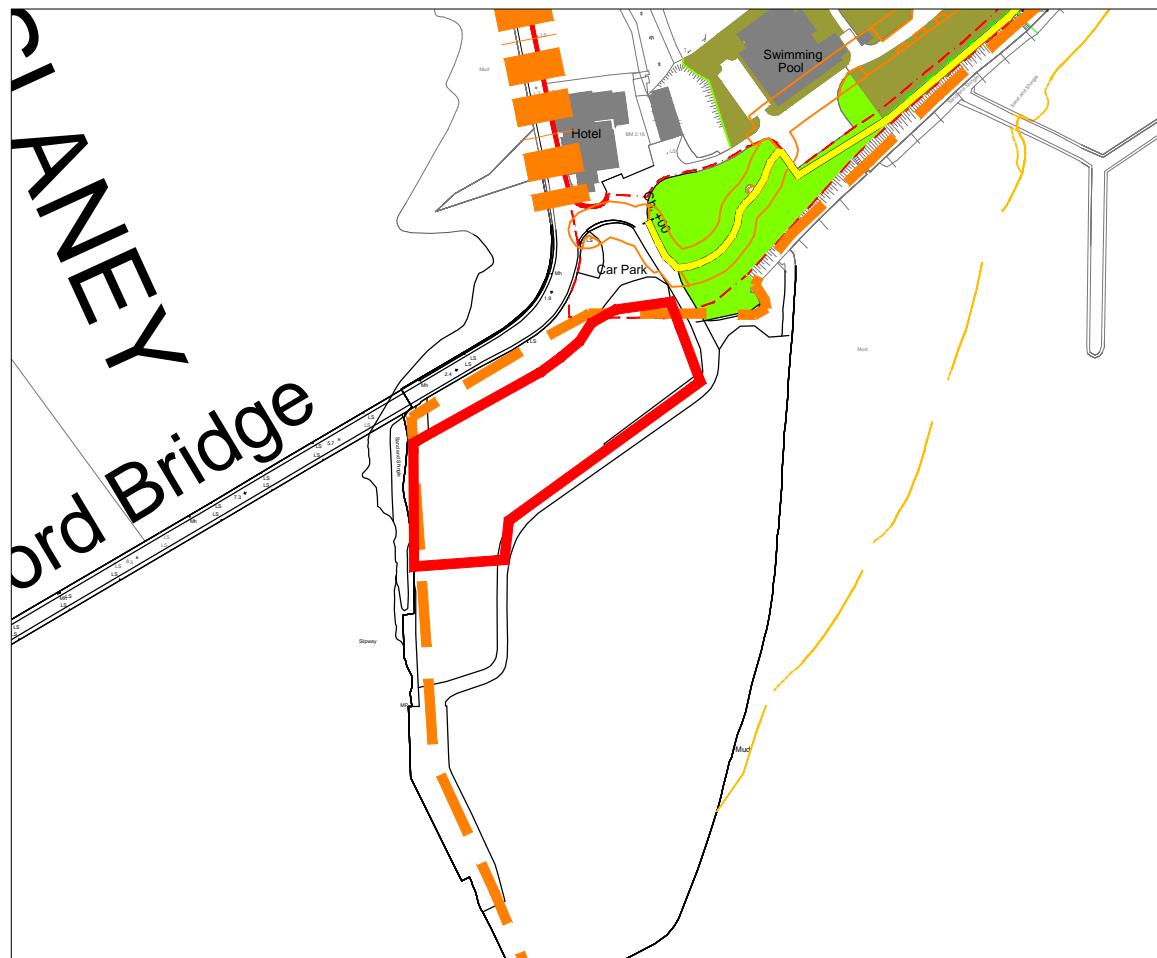
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J. Carley, B.E. C. Eng. F.I.E.I. Director of Services

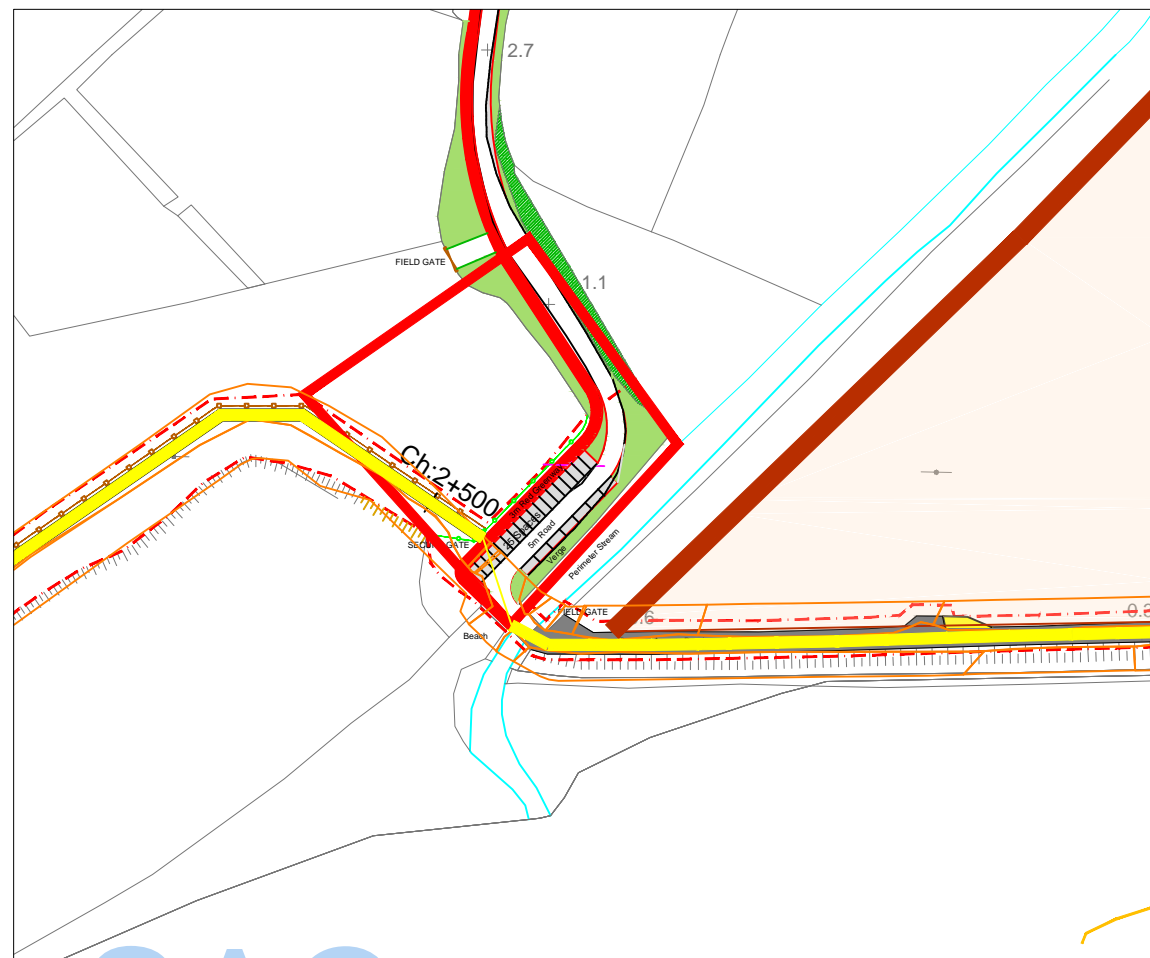
Project Title
WEXFORD to CURRACLOE GREENWAY

Drawing Title
**OCMS 4
Special Areas of conservation**

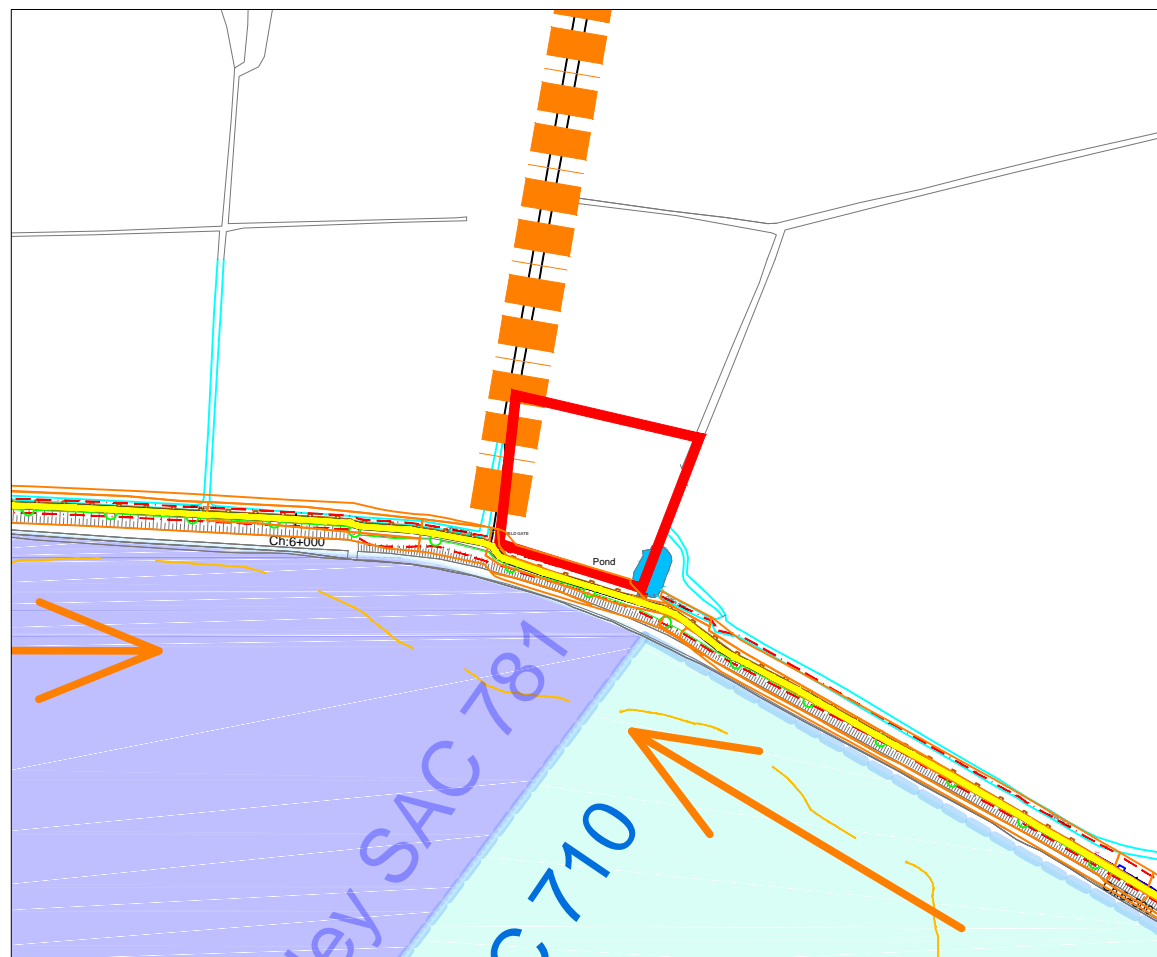
Drawn: G. Power	Checked: G. Forde
Date: February 2018	Scale: NTS
Surveyed: @A3	



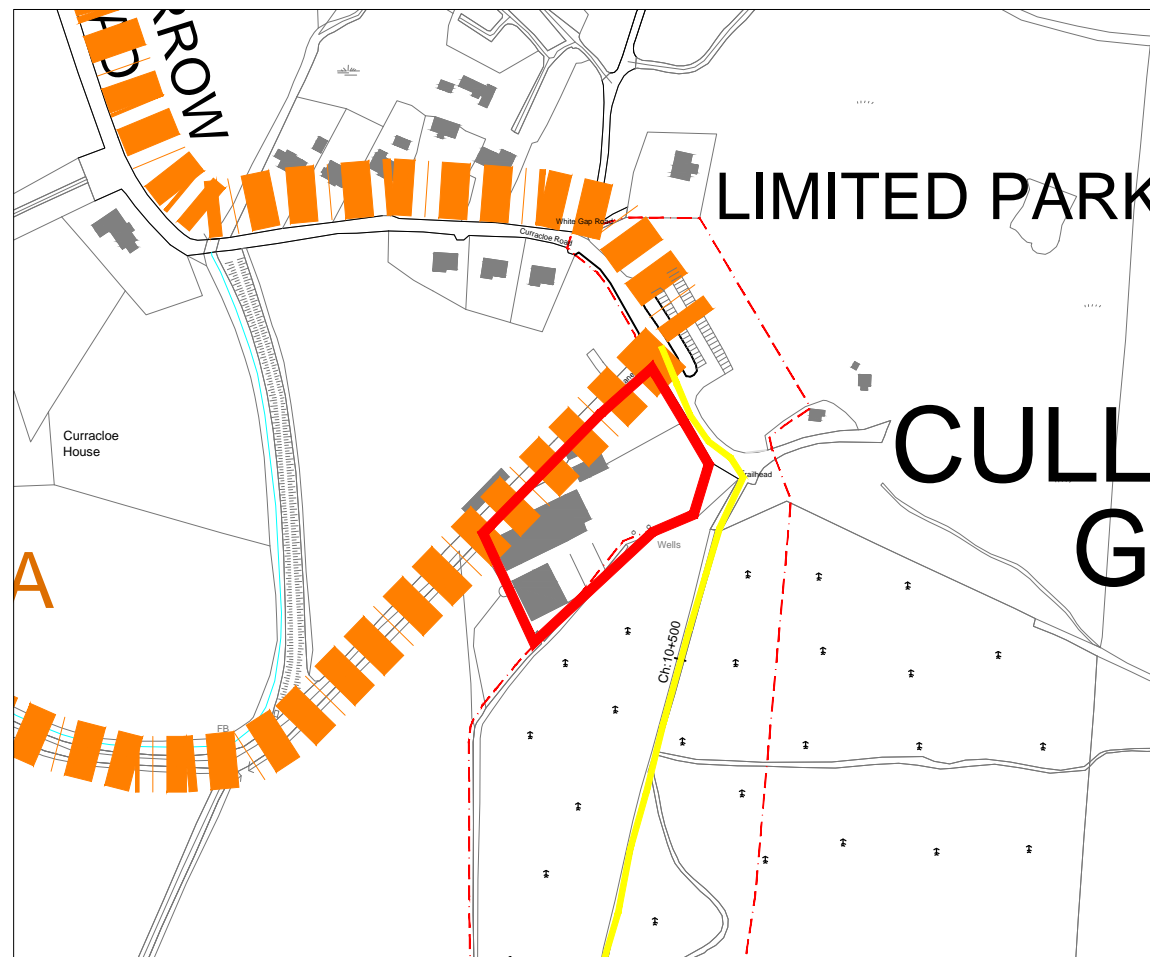
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2 : Ardcahan Lane Compound Scale 1:1



3 : Yard at Redbridge Compound Scale 1:2














4 : The Raven Compound Scale 1:2

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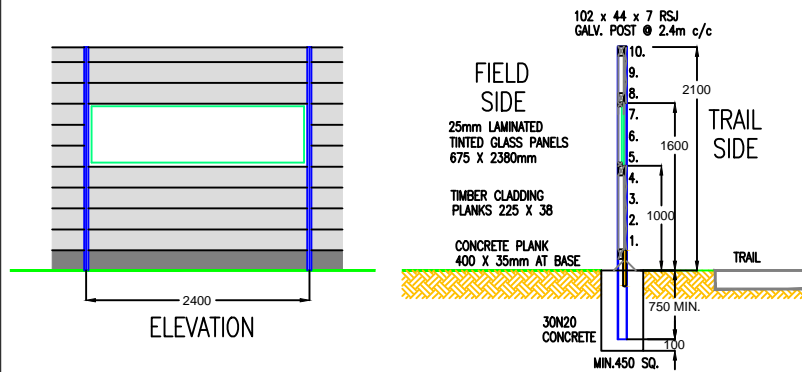
County Hall, Carricklawn, Wexford Tel: 053-9196000
 J. Carley, B.E. C. Eng. F.I.E.I. Director of Services

Project Title
WEXFORD to CURRACLOE GREENWAY

Drawing Title
**OCMS 5
 Temporary site compounds**

Drawn: G. Power	Checked: G. Forde	Date: September 2017	Scale: NTS	@A3
Surveyed:				

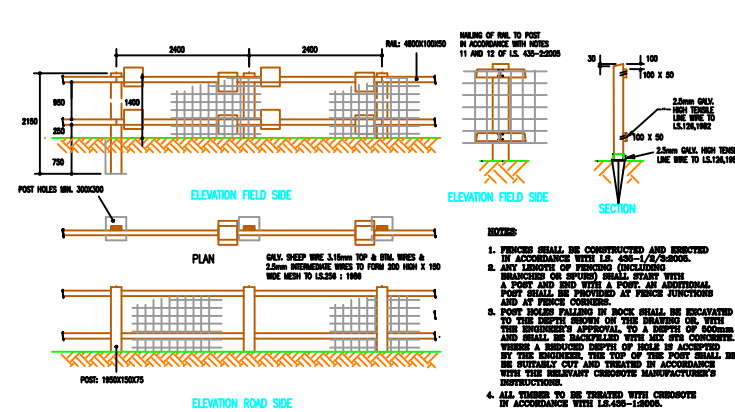
Solid screen, 2.1m high



- NOTE:
1. REFER TO ROUTE LAYOUT PLANS FOR NUMBER, LOCATION & HEIGHT OF SCREEN PANELS.
 2. THE EXACT LOCATION OF EACH VIEWING PANELS TO BE AGREED WITH THE ENGINEER.
 3. ALL METAL SHALL BE GALVANISED TO B.S. 729.
 4. ALL TIMBER TO BE TREATED IN ACCORDANCE WITH IS 435-2005.
 5. ALL CONCRETE PLANKS TO BE BACK HAUNCHED WITH CONCRETE.

To run from ch 3720 to 4235
& 6475 to 6830 on inland side of wall

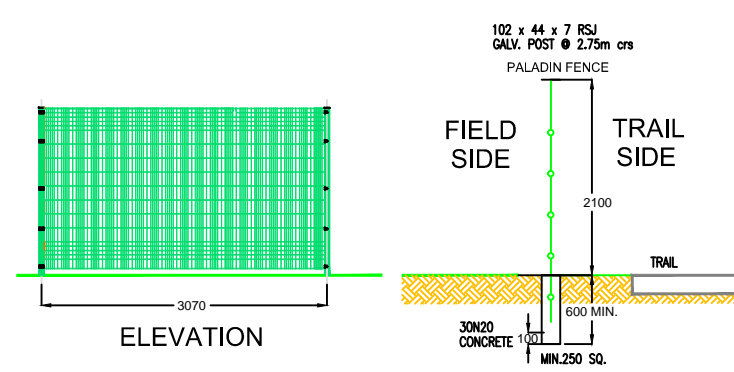
Dog proof fencing, 1.4m high



- NOTE:
1. FENCE SHALL BE CONSTRUCTED AND ERECTED IN ACCORDANCE WITH IS 435-2005.
 2. ANY LENGTHS OF FENCING (ENCLOSURE) BRACKETING OR SPURRING SHALL START WITH A POST AND END WITH A POST. AN ADDITIONAL POST SHALL BE PROVIDED AT FENCE JUNCTIONS AND AT FENCE CORNERS.
 3. POST HOLES FALLEN IN ROCK SHALL BE ENCAUSTED TO THE DEPTH OF THE HOLE WITH CONCRETE AND SHALL BE BACKFILLED WITH THE SAME CONCRETE. WHERE A SIGNIFICANT DROPPLE OF HOLE IS ACCORDED BY THE ENGINEER, THE TOP OF THE POST SHALL BE BE PROVIDED CUT AND TREATED IN ACCORDANCE WITH THE SUPPLIER'S MANUFACTURER'S INSTRUCTIONS.
 4. ALL TIMBER TO BE TREATED WITH CHROBOVITE IN ACCORDANCE WITH IS 435-2005.

To run from ch 4235 to 6475
& 6830 to 7150 on inland side of wall

Paladin metal fencing, 1.8m high



- NOTE:
1. REFER TO ROUTE LAYOUT PLANS FOR NUMBER, LOCATION & HEIGHT OF PANELS.
 2. ALL METAL SHALL BE GALVANISED TO B.S. 729.

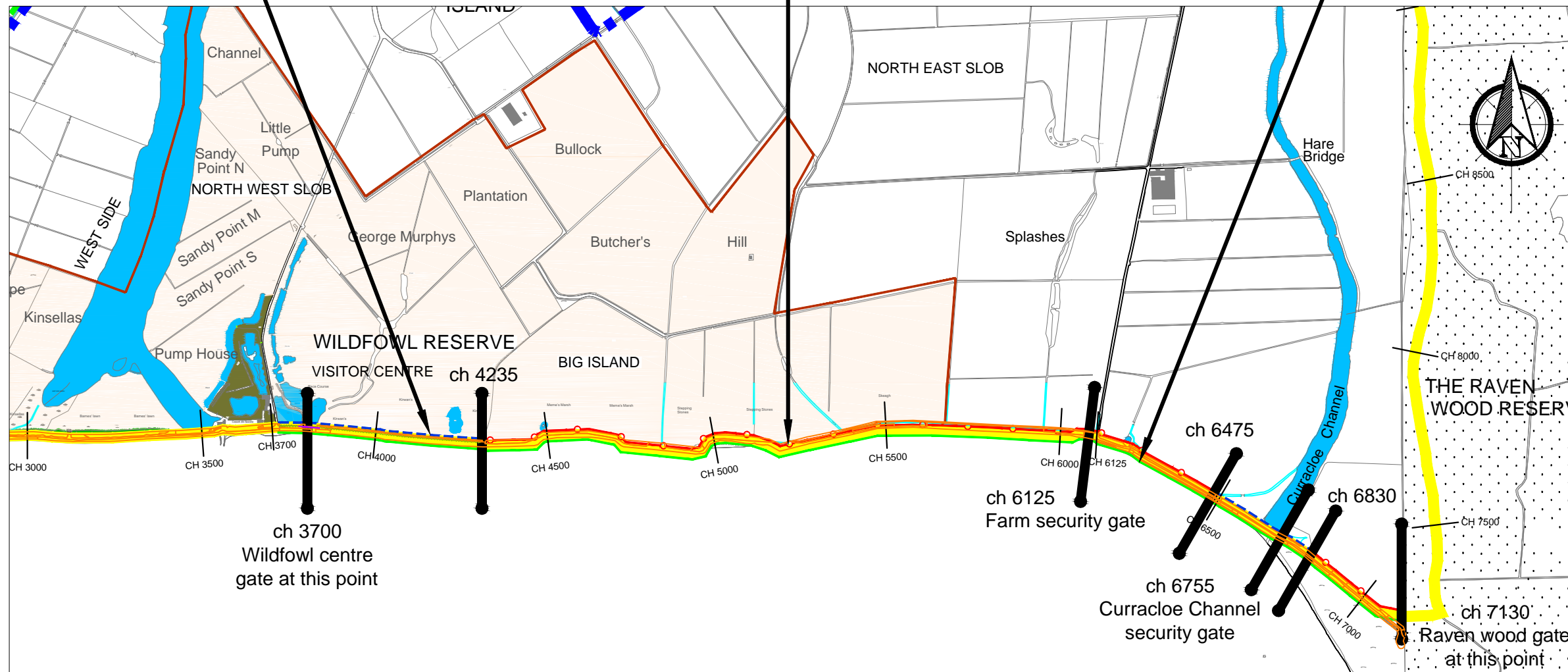
To run from ch 3720 to 7150
Beneath sea wall

NOTES:

All levels are in metres O.D. and refer to Main Head Datum
All dimension are in metres unless otherwise stated.
Figured dimensions only to be used. If in doubt check with the Engineer prior to construction
Contractor to check location of existing services with service provider, prior to construction

LEGEND:

- Slaney River Valley SAC 781
- Wexford Harbour & Slob SPA 4076
- The Raven SAC 710
- The Raven SPA 4019
- Wexford Wildfowl Reserve
- Wexford Harbour + Slob NHA
- 6m wide Greenway Corridor
- 10.75 km
- PROPOSED HAUL ROUTE
- FERRYBANK LOOP
- 6.1 km
- RAVEN LOOP
- 6.9 km
- Temporary Site Compound Area



Rev.	Revision Description	Date	Ini.	Ckd.

Wexford County Council Environment
County Hall, Carricklawn, Wexford Tel: 053-9196000
J. Carley, B.E. C. Eng. F.I.E.I. Director of Services

Project Title
WEXFORD to CURRACLOE GREENWAY

Drawing Title
OCMS 6 Fencing Types and Culvert Locations

Drawn: G. Power	Checked: G. Forde
Date: September 2017	Scale: NTS
Surveyed: @A3	