Figure 7-6: Option B 60 dB L_{den} noise contour

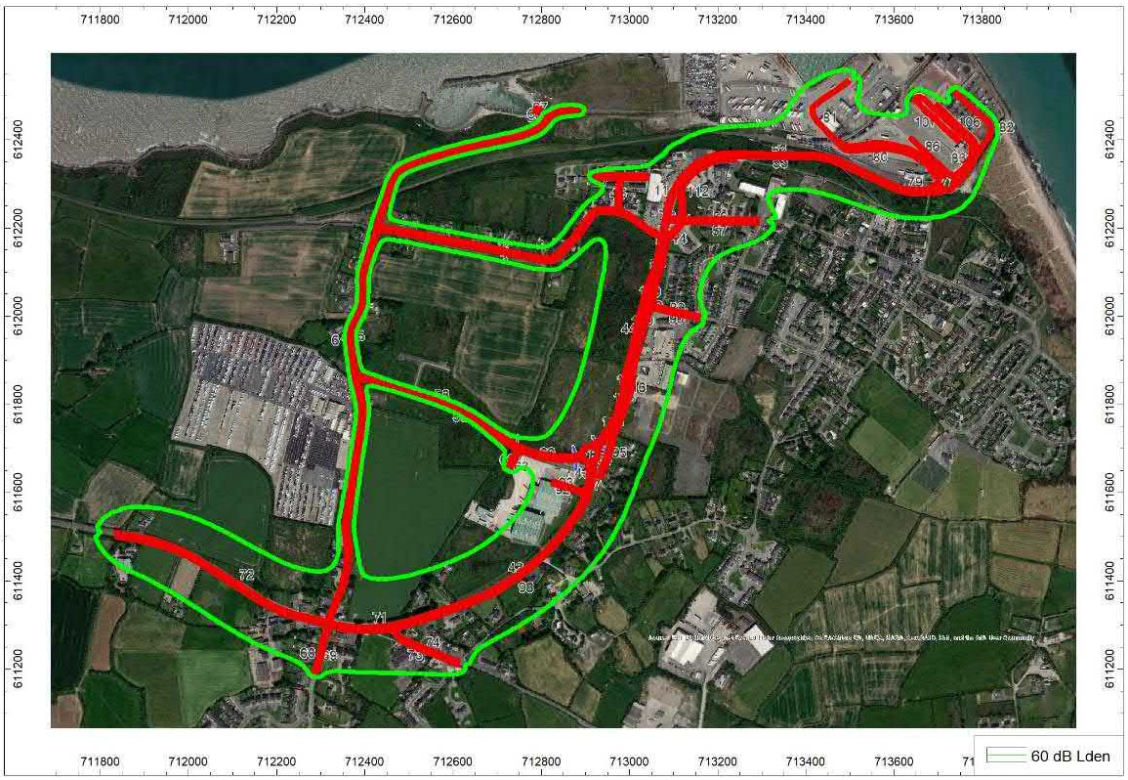
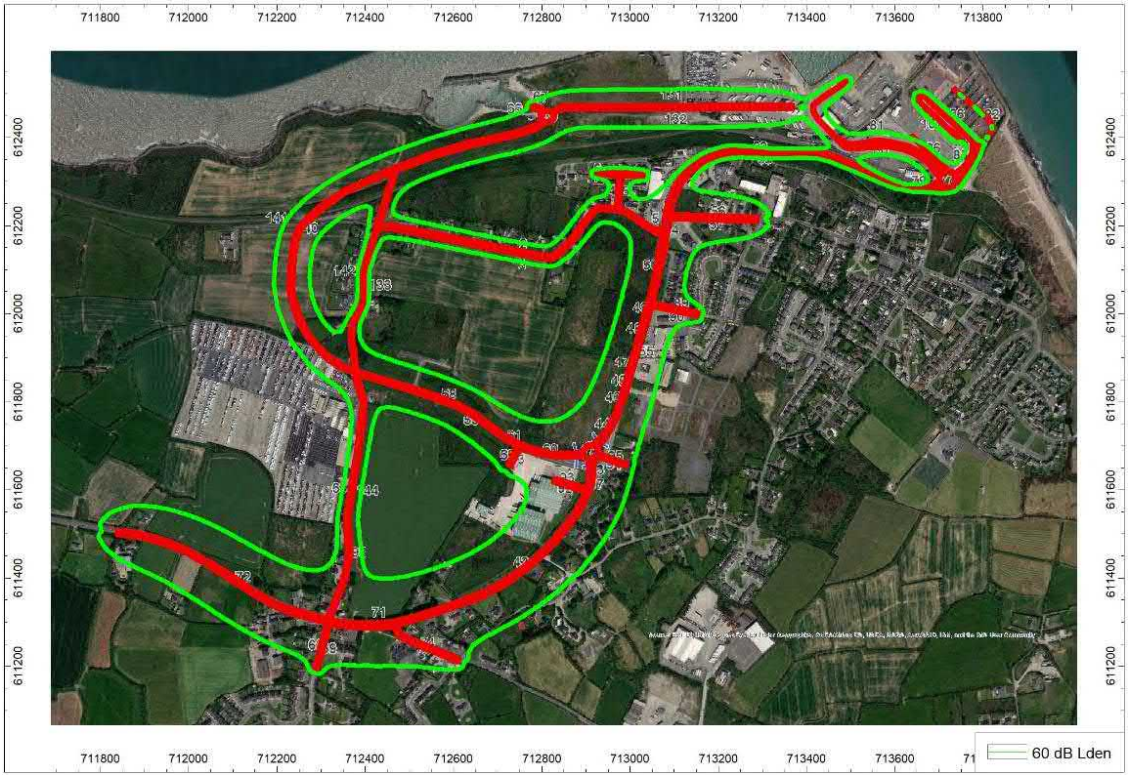


Figure 7-7: Option C 60 dB L_{den} noise contour



The above analysis has been completed without consideration of mitigation. In general, Option C presents more practical and cost-effective opportunities to implement noise mitigation where necessary compared to on-line options A and B.

The above assessment and results are preliminary and have been completed for option selection purposes based on initial design information of each scheme option. Further detailed assessment to determine noise impacts considering the effects of mitigation and 3D route alignment will be undertaken following selection of the preferred scheme option.

7.4.2.5 Conclusion and recommendations

An assessment of potential noise impacts has been undertaken at the Option Selection stage for three scheme options. This is summarised in Table 7-28. Option A and B were found to have similar impacts on noise levels due to similar nature of the on-line proposals and alignment. Option C shows fewer potential noise impacts and would result in fewer properties exposed to noise levels greater than 60 dB L_{den}.

Table 7-28: Noise Appraisal

Environmental				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Noise	Scheme Option A – 'Do-Minimum' Option	PIR = 662, No. sensitive receptors greater than 60 dB L_{den} = 83	This 'Do Minimum' option potential impacts are neutral. Not significant or neutral	4
	Scheme Option B – 'Do-Something' Management Option	PIR = 662, No. sensitive receptors greater than 60 dB L_{den} = 81	Potential impacts are equivalent to Option A. Not significant or neutral	4
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	PIR = 137, No. sensitive receptors greater than 60 dB L_{den} = 56	Results indicate Option C potential impacts are less compared to Option A and B due to transfer of road traffic away from noise sensitive residential areas. Minor or slightly positive	5

7.4.3 Waste

This assessment examines the impacts on waste of the proposed scheme options for the N25 Rosslare Europort Access Road. For the purpose of this chapter, Waste is as defined in waste legislation.

7.4.3.1 Methodology

The assessment was carried out having regard to the following:

- TII (2016) Project Appraisal Guidelines Unit 7.0 - Multi Criteria Analysis, PE-PAG-02031.
- TII (2009) Guidelines for Assessment of Ecological Impacts of National Road Schemes
- EPA (2017) Guidelines on the Information to be contained in Environmental Impact Assessment Reports

This assessment considers the potential impacts due to waste materials produced by each of the three options, including the sub options in Scheme Option C, presented in Appendix B.

Ground investigations specific to Delap's Hill, situated on the alignment of Scheme Options A and B, were undertaken in 2008. An investigation specific to Scheme Option C was undertaken in 2016. The results of these were consulted along with the findings of section 7.4.11 Soils and Geology.

Estimated volumes for cut and fill were calculated using the prismoidal method in Civil 3D 2018, plotting the cross-section at 10m intervals. For each cross section the volume between each pair of sections is estimated by multiplying the average cut or fill area of the two sections by the distance between them. Once these volumes have been calculated for each pair of sections the total cut and fill volumes are obtained by calculating the sum of these cross sections.

7.4.3.2 Assessment of impacts

Potential for production of significant amounts of waste

Option A is restricted to the existing road curtilage. As the option consists of the maintenance of the existing roadway there is no potential for production of significant amounts of waste. The potential for impact is therefore assessed as "Not Significant or Neutral".

Option B requires excavation of the existing roadway, and some land adjacent to the roadway. Waste quantities estimated for Option B are 7349.5m^3. It is likely that all material excavated will be removed from the site. Any material removed will be managed in line with current waste legislation. Given the relatively minor quantities of material to be disposed of, the potential impact is assessed as "Not Significant"

Option C1 requires approximately 46,189 m3 of fill material and will generate approximately 56,938 m3 of excavated material from cuts. Ground investigations have indicated that it is likely that all material cut will not be suitable for reuse within the site. As such it is not feasible to balance cut and fill with material excavated on site. All material removed will be managed in line with current waste legislation. Given the potential volumes likely associated with Option C1, the potential impact is assessed as "Moderately Negative".

Option C2 requires approximately 61848 m^3 of fill, and approximately 84013m^3 of cut. Ground investigations have indicated that it is likely that all material cut will not be suitable for reuse within the site. As such it is not feasible to balance cut and fill with material excavated on site. All material removed will be managed in line with current waste legislation. Given the potential volumes likely associated with Option C1, the potential impact is assessed as "Moderately Negative".

Potential for Contaminated Land and Hazardous Material Being left in Situ

Scheme Option A is restricted to the existing road curtilage. Ground Investigation Reports carried out in 2016 noted that this land is comprised of made ground which was constructed on glacial till underlain by amphibolite bedrock. As the option consists of maintaining the existing road the ground will not be disturbed. As such, the potential for impact is assessed as “Not Significant or Neutral”.

Option B requires land take within a narrow strip of land on the western side of the N25 between the Ballygillane Roundabout and the access to Mary’s Terrace Road. The existing carriageway construction is comprised of made ground underlain by glacial till with amphibolite bedrock. Given the nature of the footprint of Option B there is potential that contaminated land may be encountered during excavation. To mitigate this risk, a preliminary Risk Assessment should be required prior to construction to determine the full potential for contaminated land. As such, the potential for impact is assessed as “Minor or Slightly Negative”.

Reports on the ground conditions along the route of Scheme Options C1 and C2 have noted that where the alignment crosses the railway made ground is present, up to 3m thick. It is noted that this material has the potential to be contaminated as it is associated with the original Rosslare Harbour Station which was demolished. Given this potential for contaminated material the impact is assessed as “Minor or Slightly Negative "

7.4.3.3 Conclusion and recommendations

Option A is restricted to the existing road curtilage. Option A consists of maintenance of the existing roadway. As such there is no potential for it to produce significant amounts of waste. Likewise, the nature of option A is such that there is no potential for the option to cause impacts through contaminated land or hazardous material being left in situ. As such, Option A is assessed as “Not Significant or Neutral” and is the preferred option.

Option B requires land take outside of the existing road curtilage. There is slight potential for impact as a result of hazardous material or contaminated material being left in situ. There is the potential for the production of waste associated with the excavation of lands to facilitate the alterations required for the scheme option. As such, the option is assessed as having potential for a “Minor or slightly Negative Impact” and is the neutral option.

Ground conditions along Scheme Options C1 and C2 have noted that where the alignment crosses the railway made ground is present, up to 3m thick. It is noted that this material has the potential to be contaminated as it is associated with the original Rosslare Harbour Station which was demolished. Option C1 requires approximately 56938 m^3 of cut, while Option C2 requires approximately 84013m^3 of cut. Ground condition reports indicate all material cut for both C1 and C2 will not be suitable for reuse within the site. As such, while C2 has potential to result in greater volumes of waste, both are assessed as having potential for “Moderately Negative Impacts” and are least preferred.

The summary of the appraisal is presented below in Table 7-29.

Table 7-29: Waste Appraisal

Environmental

Criterion	Scheme Option	Quantitative Assessment	Qualitative Assessment	Score
Waste	Scheme Option A – 'Do-Minimum' Option	No potential for significant waste volumes, and no potential for hazardous material or contaminated material being left in situ	Given the lack of potential for significant impacts in relation to waste, the option is assessed as Not Significant or Neutral.	4
	Scheme Option B – 'Do-Something' Management Option	Waste quantities estimated for Option B comprise a total of 7349.5m^3 of waste produced. Slight potential for contaminated land and hazardous material being left in situ.	There is the potential for the production of waste associated with the excavation of lands to facilitate the alterations required for the scheme option. As such, the option is assessed as having potential for a "Minor or slightly Negative Impact".	3
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	Option C1 requires approximately 56938 m3 of cut, while Option C2 requires approximately 84013m^3 of cut. Potential for encountering hazardous material identified at the railway crossing.	Given the volumes of waste that may be produced as a result of constructing both Option C1 and C2, and the potential for encountering hazardous material, the impact is assessed as "Moderately Negative".	2

7.4.4 Biodiversity (Flora and Fauna)

This assessment examines the impacts on biodiversity of the proposed scheme options for the N25 Rosslare Europort Access Road.

7.4.4.1 Methodology

The assessment was carried out having regard to the following:

- TII (2016) Project Appraisal Guidelines Unit 7.0 - Multi Criteria Analysis, PE-PAG-02031.
- TII (2009) Guidelines for Assessment of Ecological Impacts of National Road Schemes.
- EPA (2017) Guidelines on the Information to be contained in Environmental Impact Assessment Reports.
- CIEEM (2019) Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine.

The criteria assessed are in accordance with the Guidelines for Assessment of Ecological Impacts of National Road Schemes and are as follows;

- Designated conservation areas and sites which are proposed for designation
- Surface water features which intersect any of the scheme options and value of same in terms of fisheries and any relevant designations
- Aquifers and dependent systems and turloughs and their subterranean water systems
- Any known or potentially important sites for rare and protected flora or fauna
- Any other sites of ecological value that are not designated
- Any other features of ecological or conservation significance

Other topics assessed included

- Potential for disturbance to invasive species
- Potential for loss or improvement to biodiversity

This assessment considers the potential impacts due to each of the three options, including the sub options in Scheme Option C, presented in Appendix B.

7.4.4.2 Desk Study

Data to inform the assessment was extracted from the following data sources:

- National Parks and Wildlife Services mapping including *inter alia*:
  - Site Specific Conservation Objectives
  - Habitats Directive Article 17 reporting data
  - Birds Directive Article 12 reporting data
  - National Seacliff Survey 2009-2011
  - Coastal Monitoring Project 2004 – 2006
  - Irish Semi-natural Grassland Survey
  - Sand Dune Monitoring Project 2011
  - Flora Protection Order - Bryophytes
- National Parks and Wildlife Service records of protected flora and fauna
- National Biodiversity Data Centre records of flora and fauna
- Botanical Society of Britain and Ireland records of protected plant species
- Results of the wintering bird survey carried out 2019-2020
- High resolution aerial photography

The TII Project Appraisal Guidelines (PAG) Unit 7.0 MCA seven-point scale scoring procedure was used in this assessment.

The criteria assessed are in accordance with the Guidelines for Assessment of Ecological Impacts of National Road Schemes and are as follows;

- Designated conservation areas and sites which are proposed for designation
- Surface water features which intersect any of the scheme options and value of same in terms of fisheries and any relevant designations
- Aquifers and dependent systems and turloughs and their subterranean water systems
- Any known or potentially important sites for rare and protected flora or fauna
- Any other sites of ecological value that are not designated
- Any other features of ecological or conservation significance

Other topics assessed included

- Potential for disturbance to invasive species
- Potential for loss or improvement to biodiversity

In accordance with the Guidelines for Assessment of Ecological Impacts of National Road Schemes an assessment was undertaken of the likely impacts of each of the scheme options on all the ecological receptors identified.

7.4.4.3 Assessment of impacts

Designated Conservation Areas

None of the proposed options overlap with the boundaries of any designated conservation areas. The closest designated site to any of the scheme options is Carnsore Point SAC, which is located approximately 500m to the east of the roundabout at the Europort to which options A and B adjoin. As such there will be no direct impact to any designated conservation sites as a result of any of the options. The location of the SAC in relation to the road schemes options are presented in Appendix C Figure 7.1.

There is no requirement for land take outside of the existing road curtilage for Option A, and there is a limited requirement for land take for Option B. As such the impact of Option A and B on designated areas is assessed as “Not Significant or Neutral”.

Option C1 and C2 are comprised of a mixture of alterations to the existing roadway combined with an offline route through areas of agricultural grassland and treelines. A wintering wildfowl survey of the area[3] recorded a number of bird species that are associated with nearby SPAs foraging and roosting in a field which Option C enters (Figure 7.1, Appendix C).

The construction of Option C has the potential to result in a loss of a small area of foraging habitat that is utilised by “small to medium” number of Curlew and Black-tailed godwit which may be associated with Wexford Harbour and Slobs SPA (004076) / Wexford Slobs and Harbour pNHA (000712).

Both curlew and black tailed godwit are noted in the site-specific conservation objectives as relying on intertidal mud and sand flats as their principle supporting habitat i.e. the main habitat used by species when foraging. As such, the stubble field does not constitute the principle supporting habitat for either curlew or black tailed godwit. Further, it does not constitute a significant roosting location for either bird species given the numbers recorded within the field. In addition, there is a significant amount of similar habitat to the stubble field both in closer proximity to the SPA and in the wider landscape surrounding Rosslare Harbour. As such, the loss of a small area of roosting and foraging

[3] T. Nagle (2020) Winter Bird Surveys at Three Sites in Wexford 2019-2020. Unpublished Report

habitat does not constitute a loss which might result in a significant impact to populations of birds associated with the SPAs.

To summarise, in the case of each of the options, the potential for impact to Designated Sites is "Not significant or Neutral".

Water Features

None of the options will require a watercourse crossing and none are adjacent to any watercourse. The nearest freshwater watercourse is located approximately 900m to the west of Options A and B, which are set back approximately 200m from the coastal waters to the east. Works outside of the existing road curtilage are limited to the western extent of the scheme. In addition, the works at the eastern extent of Option B would be confined within the curtilage of the existing road. Given the distance to potential receptor watercourses and given the scale of the works associated with Option B, there will be no runoff to waters. The drainage associated with Option B will tie into existing drainage along the road. As such, there is no potential for significant effects to designated sites associated with Option B. The impact of options A and B is therefore assessed as "not significant or neutral".

The nearest freshwater watercourse to Option C is located approximately 200m to the west of the works (Figure 7.1 Appendix C). The route also runs along coastal cliffs to the north in close proximity to coastal waters. As the scheme option will slope down into the port, there is potential for run off to enter the coastal waters at this location during construction phase. This has potential to result in a short-term localised impact on coastal waters during the construction phase. This will not constitute any long-term changes to the WFD status of the rivers. Suds drainage will be developed during the design phase to ensure that there are no impacts during the operational phase of the works. The impact is therefore assessed as Minor or Slightly Negative

Aquifers and water dependant systems

Assessment of impacts to aquifers and water dependant systems is assessed under Section 7.4.11 Hydrology.

Rare and protected flora and fauna

There is potential for marine mammals to occur in the coastal waters surrounding Rosslare Harbour. There is potential for the construction phase of the works, in particular caused by blasting which may be required for Options C1 & C2, to result in noise impacts to marine mammals. The provision of a marine mammal observer would, however, mitigate and negate the impact.

For Option A, there is no requirement for land take outside of the existing road curtilage. As such the impact of Option A is assessed as "Not Significant or Neutral".

The works required for Option B are predominantly within the curtilage of the existing road, and adjacent hard standing. As Option B is within the disturbed urban fabric of Rosslare Harbour, there is no potential for impact to protected species or habitats. For Option B the impact is therefore assessed as "Not Significant or Neutral".

As previously noted, a wintering wildfowl survey of the area recorded a number of bird species that are associated with nearby SPAs foraging and roosting in a field which Option C enters. The construction of either Option C1 or C2 has the potential to result in a loss of a small area of foraging and roosting habitat that is utilised by a "small to medium" number of Curlew and Black-tailed godwit. There is a significant amount of suitable foraging and roosting habitat for these species in the wider landscape surrounding Rosslare Harbour.

The impact is therefore assessed as "Minor or Slightly Negative"

Ecological sites that are not designated but are of significance

For Option A, there is no requirement for land take outside of the existing road curtilage. As such the impact of Option A is assessed as Not Significant or Neutral.

Option B requires some land take to either side of the existing roadway. This comprises existing hard standing and amenity grassland, with some areas of wet grassland and scrub. These habitats are of Local Importance Lower Value and are not of ecological importance. The associated impact is assessed as Minor or Slightly Negative

Options C1 and C2 run through existing road curtilage, rough neutral grassland, agricultural fields and areas of amenity grassland. These habitats are of Local Importance Lower value (with the exception of "the stubble field", which supports low numbers of SPA bird species). The routes also bisect a number of treelines and areas of scrub. These habitats are of Local Importance Higher Value given their importance to local biodiversity and links between features in the wider landscape. The stubble field is assessed as being of Local Importance Higher Value given that it is supporting habitat for curlew and black tailed godwit.

Biodiversity

There is no requirement for land take outside of the existing road curtilage for Option A. As such the impact of Option A is assessed as “Not Significant or Neutral”.

For Option B some land take is required within areas of wet grassland, scrub and amenity grassland. These habitats are all assessed as Local importance Lower Value. The works will result in the permanent loss of a small area of these habitats, which has the potential to result in a minor loss of biodiversity. There is potential, however, during the landscape design to incorporate planting schemes which will serve to offset this minor biodiversity loss. The impact is therefore assessed as “Not Significant or Neutral”.

The land take for Options C1 and C2 is largely made up of existing hard standing, agricultural fields and amenity grassland. There is potential, however, for the loss of treelines, hedges, and scrub which are associated with field boundaries and for loss of vegetation associated with the sea cliff. This has potential to result in a loss of features which are locally important for biodiversity along the scheme options. These habitats are assessed as being Local Importance Higher Value.

There is potential, however, during the landscape design to incorporate planting schemes which will serve to offset the biodiversity loss associated with the hedgerows removal, which would therefore have a “Not Significant or Neutral” impact.

Invasive species

Option B comprises the existing road with some small areas of wet grassland, scrub and amenity grassland. There are records of invasive species (Japanese knotweed, three cornered garlic, and sea buckthorn) in the wider landscape, there are no records of invasive species in the footprint of Option B (or Option A).

The land take for options C1 and C2 is largely made up of existing hard standing, agricultural fields and amenity grassland with treelines, hedges and scrub associated with field boundaries. The area along the northern extent of the route has the highest potential for spread of invasive species as there are records of Japanese knotweed approximately 50m from the end of the option adjacent to the Europort (Figure 7.1 Appendix C). While it is not within the direct footprint of the works, there is some potential that the stands may be disturbed during the construction.

However, it is noted that there is a legal obligation under the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) not to cause the spread of invasive species. The construction works will be carried out in accordance with the law, and as such measures will be

required to ensure the control of invasive species. The impact is therefore assessed as “Not Significant”.

7.4.4.4 Conclusion and recommendations

The potential impacts are summarised below in tables Table 7-30 and Table 7-31.

Scheme Option A will have the Neutral or non-significant impacts across all criteria.

Scheme Option B will have neutral or non-significant impacts to all criteria.

The land take associated with Scheme Option C outside of the urban environment has the potential to result in negative impacts to ecologically important sites, watercourses, protected species and habitats, and invasive species. As such, Option C is least preferred. While Option C2 has a slightly larger land take than Option C1 there is no significant different between the two sub options.

Table 7-30: Criteria Scores and preference for the three scheme options

Scheme Options	Score						Preference
	Impact to Designated Sites	Potential impact to non-designated ecologically important sites	Potential to impact on WFD status of watercourses	Potential to impact protected species/ habitats	Potential for loss or improvement of biodiversity	Potential for disturbance to invasive species	
Option A	4	4	4	4	4	4	Neutral
Option B	4	4	4	4	4	4	Neutral
Option C	4	3	3	3	4	3	Least preferred

Table 7-31: Biodiversity (Flora and Fauna) Appraisal

Environmental				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Biodiversity (Flora and Fauna)	Scheme Option A – ‘Do-Minimum’ Option	No designated sites were located within the footprint of the site. No potential for impact was identified to those outside of the study area. No ecologically important sites, invasive species, protected habitats, or protected species were identified with potential for impact by Option A. There is no opportunity for biodiversity enhancement associated with Option A.	No significant impact was identified on Designated sites, ecologically important sites, watercourses, protected species and habitats, biodiversity, and invasive species.	4
	Scheme Option B – ‘Do-Something’ Management Option	No designated sites were located within the footprint of the site. No potential for impact was identified to those outside of the study area. No ecologically important sites, invasive species, protected habitats, or protected species were identified with potential for impact by Option B.	No significant impact on Designated sites, ecologically important sites, watercourses, protected species and habitats, and invasive species.	4

Environmental

Criterion	Scheme Option	Quantitative Assessment	Qualitative Assessment	Score
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	No designated sites were located within the footprint of the options. No potential for impact was identified to European Sites located outside of the option footprints. One locally ecologically important site was identified. Invasive species have been recorded in proximity to this route. No protected habitats were identified in the footprint of the option. Two protected bird species were identified with potential for local impacts impact by Option C1 and C2.	No significant impact on Designated sites, and biodiversity. Potential for minor or slight negative impacts to ecologically important sites, watercourses, protected species and habitats, and invasive species.	3

7.4.5 Agriculture

This assessment addresses the agricultural impacts of the proposed scheme options for the N25 Rosslare Europort Access Road.

7.4.5.1 Methodology

The following guidelines and legislation were referred to when undertaking this Scheme Options Assessment:

- European Union (2018) (Planning and Development) (Environmental Impact Assessment) Regulations. (SI 296 of 2018);
- Environmental Protection Agency (EPA) (August 2017) Guidelines on the Information to be contained in Environmental Impact Assessment Reports[4]; and
- Transport Infrastructure Ireland (TII) (2016) Project Appraisal Guidelines Unit 7.0 - Multi Criteria Analysis, PE-PAG-02031[5].

This assessment is a combination of a desktop assessment of available data sources combined with the on-site windshield survey conducted in June 2020. This assessment considers the impacts due to each of the options presented in Appendix B compared to the existing agricultural baseline.

7.4.5.2 Desk Study/Field Study

The desktop study considered the following sources of information;

- Aerial mapping / photography[6][7] was used to identify farmyard and facilities and land use / cropping. Hereafter in this report aerial mapping or aerial photography is Bing[6] and Google[7] aerial mapping;
- The Property Registration Authority of Ireland (PRAI)[8] database was used to identify folio land parcels along each scheme option. The area of these land parcels and the land-take from them was calculated using computer software;
- Soil mapping data from the Teagasc Irish Soil Information System[9] was used to identify the soil types along each scheme option. For example, rock, peat and low-lying alluvial soils are generaly poor quality.

A windshield survey was conducted in June 2020. The windshield survey involved driving through the study area and recording farm enterprises, land use and land quality. The purpose of the windshield survey was to verify where possible the desktop data and identify the following:

- Farm yards;
- Farm types;
- Land use / cropping (e.g. vegetable cropped areas and commercial orchards); and
- Land quality - desktop information was verified and areas with forestry were noted.

The following features along each scheme option have been identified from desktop and windshield survey information sources:

[4]Environmental Protection Agency (EPA) (August 2017) Guidelines on the Information to be contained in Environmental Impact Assessment Report. Available from: https://www.epa.ie/pubs/advice/ea/EPA%20EIAR%20Guidelines.pdf [Accessed 09 April 2020]
[5] Transport Infrastructure Ireland (2016) Project Appraisal Guidelines for National Roads Unit 7.0 - Multi Criteria Analysis Available from: https://www.tiipublications.ie/library/PE-PAG-02031-01.pdf [Accessed: 09 April 2020]
[6]Bing Aerial Mapping (2020). Available from: https://www.bing.com/maps [Accessed: 09 April 2020]
[7]Google Aerial Mapping (2020). Available from: https://www.google.com/maps [Accessed: 09 April 2020]
[8]Property Registration Authority (2019). Available from https://www.landdirect.ie/index [Downloaded April 2019 and updated continually with information from landowner meetings]
[9]Teagasc (2019), Irish Soil Information System. Available from http://gis.teagasc.ie/soils/ [Accessed: 05 April 2019]

- Land parcels along each corridor option have been identified from the PRAI database[8]. Land parcels registered to the same landowner have been merged together. Where there is un-registered land, aerial mapping[6,7], and professional judgement was used to map un-registered land parcels. The limitations of using PRAI[8] data without land owner consultation is recognised in this assessment, however, the data is a useful tool in estimating the size of affected land parcels and potential impacts arising from severance and land-take;
- Yards and farm facilities were identified using aerial photography and windshield survey;
- Cropping and land use were identified from aerial photography and windshield survey; and
- Good and poor quality land and areas of woodland/scrub/forestry were initially identified by using the Teagasc Irish Soils Information System[9] and aerial photography and verified by windshield surveying.

7.4.5.3 Impact Assessment Methodology

The TII Project Appraisal Guidelines (PAG) Unit 7.0 MCA[5] seven point scale scoring procedure was used in this assessment. The PAG seven-point scale scoring procedure is outlined hereunder:

7 – Major or highly positive;

6 – Moderately Positive;

5 – Minor or slightly positive;

4 – Not significant or neutral;

3 – Minor or slightly negative;

2 – Moderately negative; or

1 – Major or highly negative.

The criteria (and sub-criteria) assessed are in accordance PAG guidelines and are as follows;

- Farm size;
- The type of farm enterprises carried out;
- Land take, including the removal of farm buildings and / or facilities.
- The degree of severance with mitigation; and
- Impact on Viability.

Farm Size

In the absence of individual land owner consultations the area of farms is assumed to be the same along all the scheme options (i.e. average for County Wexford based on CSO data). In general, land-take and severance impacts will tend to have a higher impact on smaller holdings because a higher proportion of the farm is taken or severed. Therefore, when assessing this criteria, impacts on larger farms is preferred.

Type of Farm Enterprise

A desktop review of the scheme options using the ortho-photography mapping combined with a windshield survey (June 2020) assessed the land use / farm types along the scheme options. The significance of impact is higher when highly sensitive farms are affected and therefore impacts on low and medium sensitivity farms is preferred. The criteria outlined in Table 7-32 are used to determine farm sensitivity (based on professional judgement);

Table 7-32: Farm Sensitivity

Farm Enterprise Type	Intensity / Scale	Sensitivity
Stud farms, farm shops / open farms are generally high or very high sensitivity. Intensive horticulture is generally high or very high sensitivity.	High	Very High
	Medium	High
	Low	Medium
Dairy farms and intensive equine enterprises.	High	High
	Medium	High
	Low	Medium
Pig and Poultry enterprises	High	Very High
	Medium	High
Non-dairy grazing livestock enterprises (including beef, sheep and small non intensive equine) and grass cropping enterprise.	High	Medium
	Medium	Low or medium
	Low	Low or very low
Tillage	High	Medium
	Medium	Low or medium
Rough Grazing, Bog, Forestry, Woodland	Low	Low or very low

Land Take Including Impact on Farm Buildings and/or Facilities

Sub Criterion 1: Area of agricultural land. The main agricultural land uses within the study area are grassland and tillage. The area of agricultural land within each scheme option was calculated. This was based on the shape file data provided by lead consultant. Scheme options with lowest land-takes of agricultural land are preferred.

Sub Criterion 2: Potential impacts on farm buildings / facilities. This assessment involved a count of the number of farm buildings / yards / animal handling facilities within the footprint of each scheme option.

Severance

The degree to which land parcels are severed by a scheme option as examined. Scheme options with the lowest predicted severance impacts are preferred.

Impact on Viability

Viability is related to many factors, including land quality. Low viability is where land is dominated by scrub, woodland, natural vegetation or poor-quality land such that the agricultural potential of that land is restricted. Soil types and quality is also considered.

7.4.5.4 Assessment of Impacts

Option A ('Do-Minimum' Option) utilises the existing N25 National Road as the access route to Rosslare Europort. Option A begins at the N25 Ballygillane roundabout with the Ballygerry Link Road, continues along the existing N25 National Road and terminates at the existing roundabout at Rosslare Europort. This 'Do-Minimum' option provides the baseline for the appraisal of all scheme options.

Option B ("Do-Something" Management Option) begins at the proposed N25 Ballygillane roundabout with the Ballygerry Link Road, continues along the existing N25 National Road and terminates at the existing roundabout at Rosslare Europort. This option will impact on one low sensitivity land parcel and one very low sensitivity land parcel on the western side of the scheme option. There will be land-take along the western side of the scheme option affecting a 6.1ha low sensitivity grassland plot which has limited agricultural use. This impact due to Option B on this land parcel is not significant. Similarly, on the western side of the Scheme Option B, there will be

land-take from a very low sensitivity scrub/ rough grazing plot consisting of 2.5ha resulting in a not significant impact. These land parcels have very low agricultural potential. The impacts here are not significant due to the small amounts of land-take at the edge of these low and very low sensitivity land parcels.

Option C ("Do-Something" Development Option) begins at its junction with the N25 Ballygillane Roundabout and travels west utilising the existing Ballygerry Link Road before looping to the north, crossing agricultural land, then looping east to cross the existing railway track before continuing east to connect into Rosslare Europort, via a new roundabout proposed as part of the future development of the Rosslare Europort. This scheme option will have negligible impacts on low sensitivity land parcels along the Ballygerry link road. Before crossing into good agricultural land, it crosses a small (0.54 ha) very low sensitivity scrubby grassland plot and a dwelling house plot (which is not agricultural). This scheme option then loops north and then east through two good quality tillage fields which are part of the same 13.4ha land parcel consisting of two fields – one at each side of the railway line. The land-take and severance impacts will result in a significant adverse impact on this medium sensitivity land-parcel.

The impacts relative to the baseline are presented in Table 7-33.

Table 7-33: Criteria Scores and preference for the three scheme options

Scheme Options	Score					Preference
	Farm size	Farm type	Land-take	Severance	Viability	
Option A	4	4	4	4	4	Preferred
Option B	4	4	4	4	4	Preferred
Option C	3	3	2	2	3	Least preferred

7.4.5.5 Conclusion and Recommendations

Scheme Option A will have the lowest impact and is preferred.

Scheme Option B will have no significant land-take impacts on two low and very low sensitivity land parcels.

Option C will have impacts classified as "Not Significant or Neutral" on one low land parcel and one very low sensitivity land parcel along the Ballygerry link road. Then it crosses a small very low sensitivity land parcel with a not significant impact. The impact on the tillage land parcel is significant adverse. The overall impact of the entire scheme option is slight adverse – taking into account the scale/size of the road development.

There is no significant difference between C option with a dual carriageway component and C option with a single carriageway.

The summary of the findings are presented in Table 7-34.

Table 7-34: Agriculture Appraisal

Environmental

Criterion	Scheme Option	Quantitative Assessment	Qualitative Assessment	Score
Agriculture	Scheme Option A – 'Do-Minimum' Option	No impact on highly sensitive farms. 0.8ha land-take from roundabout is considered as a cumulative impact. No severance. No impact on farm viability.	This option provides the baseline for the appraisal of all scheme options.	4
	Scheme Option B – 'Do-Something' Management Option	Impact on low and very low sensitive farms. Approx. 0.7Ha of low sensitivity Agri-land. No severance. No significant impact on farm viability.	The impacts associated with Option B are not significant due to the small amounts of land-take at the edge of these low and very low sensitivity land parcels.	4
	Scheme Option C (C1 and C2) – 'Do-Something' Development Option	No impact on highly sensitive farms but there is an impact on one medium sensitivity land parcel. Approx. 0.5Ha of low sensitivity Agri-land and approx. 1.8ha of medium sensitivity. Severance of one medium sensitivity land parcel (approx.1.1ha). One significant impact on farm viability.	The land-take and severance impacts will result in a significant adverse impact on this medium sensitivity land-parcel.	3

7.4.6 Non-Agricultural Properties

This assessment addresses the impacts on non-agricultural properties from the proposed scheme options for the N25 Rosslare Europort Access Road.

7.4.6.1 Methodology

The assessment was carried out having regard to the following:

- TII (2016) Project Appraisal Guidelines Unit 7.0 - Multi Criteria Analysis, PE-PAG-02031
- TII (2009) Guidelines for Assessment of Ecological Impacts of National Road Schemes
- EPA (2017) Guidelines on the Information to be contained in Environmental Impact Assessment Reports

This assessment considers the impacts due to each of the three options, including the sub options in Scheme Option C, presented in Appendix B compared as the baseline.

The TII Project Appraisal Guidelines (PAG) Unit 7.0 MCA[5] seven point scale scoring procedure was used in this assessment. The PAG seven-point scale scoring procedure is outlined hereunder:

7 – Major or highly positive;

6 – Moderately Positive;

5 – Minor or slightly positive;

4 – Not significant or neutral;

3 – Minor or slightly negative;

2 – Moderately negative; or

1 – Major or highly negative.

The criteria (and sub-criteria) assessed are in accordance with guidelines listed previously and are as follows

- Potential for impact to residential, commercial, and industrial property including both loss and severance
- Potential for impact to amenity and recreational areas
- Potential for impact to public facilities
- Potential for impact to Lands zoned for development - residential, commercial or industrial
- Potential for impact to granted planning permissions

Data sources to carry out this assessment included:

- Geodirectory data
- High resolution orthophotography
- Ordnance Survey Mapping
- Mapping of cycle routes and other tourist attractions within the study area
- Rosslare Harbour & Kilrane Local Area Plan 2012-2018
- Wexford County Council planning website
- EIA portal – An online map-based website that provides access to applications for development consent which were accompanied by an Environmental Impact Assessment Report made since 16 May 2017

7.4.6.2 Assessment of impacts

The assessment of impacts of the scheme options on non-agricultural properties is assessed hereunder. The results of the seven-point scoring assessment are summarised below in table 6-29.

Potential Impact to Residential, Commercial and Industrial Property

Option A consists of maintenance to the existing road. There will be no loss of property, gardens, or car parking associated with Option A. There will therefore be no direct impact to residential, commercial or industrial properties. The impact is therefore assessed as “Not Significant or Neutral”.

The majority of Option B is within the curtilage of the existing road. Where land take is required on the western side of the road it is within a greenfield site and will not impact on any existing residential, commercial or industrial buildings. The eastern extent of the option will not result in any impact to buildings; however, the land take and footpath will encroach into the following areas:

- A maintained grassed area outside of a non-residential building,
- An existing hardstanding area outside of four non-residential buildings,
- A landscaped area outside of a strip of 6 residential houses, and one non-residential building.

Options C1 and C2 are predominantly offline from the existing road network through agricultural land. The effects on this are assessed in the Agricultural properties section (6.4.5).

Option C1 and C2 are within the curtilage of the road from the new Ballygillane roundabout. The routes then cross an area of scrub, and an area of maintained grass to the rear of a residential property, before entering into the agricultural lands. Where the route crosses the rear of the residential property, there is land take required within a grassed field to the back of the house. The remainder of Option C is within agricultural lands until it reaches an existing access track. The effects on property by options C1 and C2 are assessed as “Minor or Slightly Negative”.

Potential impact to amenity and recreational areas

There are no playing pitches or parks within the footprint of any of the options. There are, however, a number of cycling and walking trails which intersect the options.

There are two cycle routes currently running along the length of Options A and B. These are the Wexford Cycle Hub Loop 3, and the Wexford Eurovelo trail. There is also a single walking trail which intersects part of Options A and B, the Rosslare Harbour Village Trail. Finally, the proposed Rosslare Strand to Rosslare Europort Greenway which is currently undergoing options appraisal meets the north eastern end of Options C1 and C2. The location of these trails in relation to the scheme options are presented in Appendix C Figure 7.2.

Increases in traffic volumes which are utilising the roadway has the potential to increase risk to vulnerable road users. While these trails are currently partially facilitated in cycle lanes and footpaths along the existing roadway, increases in traffic volumes (both due to national increases and increases in volumes utilising the port) without upgrading the roadway has the potential to decrease the amenity value of the cycle and walking trails in the area. As such, Option A has the potential to result in a “Minor or Slightly Negative” impact on the amenity features in the area.

The upgrades to the roadway which would be incorporated in Option B include for a 4m wide off-road cycle path and footpath facility. These facilities will be on both sides of the roadway and will tie in with the existing cycle/pedestrian path thereby improving the network for pedestrians and cyclists. Proposed signalised pedestrian/cycleway crossing, and the proposed pedestrian overpass will also serve to improve connectivity and safety for vulnerable road users. This has the potential to result in a “Slight Positive Impact” in the amenity value of these cycle routes and walking trails.

In terms of Options C1 and C2, as the options are largely offline routes, the cycle routes in the vicinity of Rosslare Harbour do not generally intersect with Options C1 and C2 with the exception of the proposed Rosslare Strand to Rosslare Europort Greenway. Option C1 and Option C2 will result in the majority of heavy traffic that makes use of the roadways being diverted away from the cycle paths and walking trails. Further, the cycling and walking facilities that do intersect with Option C will directly link with the proposed greenway route. This has the potential to result in a "moderately positive impact" as the road safety and amenity value of the trails will increase.

Potential impact to public facilities

There are no schools or hospitals along the route of Option A. St Patrick's Church is located directly adjacent to the existing roadway (Appendix C, Figure 7.2). Scheme Option A consists of maintenance of the existing roadway. As such there will be no impacts to any public facilities along the route. As such, the impact is assessed as "Not Significant or Neutral"

The majority of Option B is within the curtilage of the existing road. There are no schools or hospitals along the route that will be impacted by Option B. Option B has the potential to impact on the entrance and car park of Saint Patrick's Church. While the building will not be impacted on directly, a proportion of the front carpark will be permanently encroached upon. The use of St Patrick's Church itself will not be impacted upon, however, the effects will be permanent, and will result in significant effects on the entrance and parking. As such the effects on property by Option B are assessed as "Moderately Negative".

Options C1 and C2 are predominantly offline through agricultural land, with a section from Ballygillane roundabout which is along the existing roadway. There are no schools, hospitals or churches which will be impacted upon by the proposed route. The impact is therefore assessed as "Not Significant or Neutral".

Lands zoned for development - residential, commercial or industrial

The most recent local area plan for the Rosslare Harbour area (dated 2012-2018) was consulted in terms of areas which had been zoned in the vicinity of the scheme options.

Option A route runs alongside areas zoned for Industry, open space and amenity, community and education, town centre, town centre long term, existing residential and infill, commercial and port related activities.

Option A is restricted to within the existing road corridor. As such there is no potential for significant impact to lands zoned for development by Option A and it is assessed as "Not Significant or Neutral".

The majority of Option B is situated within the curtilage of the existing road. Some land take is required to the west of the existing road. This area is a greenfield site. The land take for Option B skirts through fields which are zoned for heavy industry, community and education, town centre long term, and town centre. The encroachment into these areas is minor, restricted to the edge of the fields.

On the eastern side of the existing road, the scheme option extends slightly into areas zoned as mixed use, commercial, existing residential and infill, community and education, town centre. The extent by which Option B encroaches on these zoned lands is minor, and the encroachment will not result in an alteration in the current. As such the potential impact by Option B is "Minor or Slightly Negative".

Options C1 and C2 fall entirely within the lands zoned for the N11/N25 preferred route corridor. As such there will be no impact to any lands zoned for residential, commercial, or industrial purposes. The potential impact is therefore "Not Significant or Neutral".

Potential impact to granted planning permissions

Approval has been given for a roundabout immediately south of each of the options, the Ballygillane Roundabout. There is capacity in each of the options to tie into the roundabout with no impact to it.

A search was carried out for other recent planning permissions (within the last 5 years) which were granted along the footprint of all of the options. No other recent applications were noted along the extent of any of the options. As such the impact is considered to be “Not Significant or Neutral” for all options. Table 7-35 below details Criteria Scores and preference for the three scheme options.

Table 7-35: Criteria Scores and preference for the three scheme options

Scheme Options	Score					Preference
	Impacts to Residential, commercial and industrial Property	Impacts to Amenity and Recreational areas	Impact to public facilities	Impact on lands zoned for development	Impact on granted planning permission	
Option A	4	3	4	4	4	Neutral
Option B	2	5	2	3	4	Least preferred
Option C (C1 & C2)	3	6	4	4	4	Preferred

7.4.6.3 Conclusion and recommendations

There is no significant difference between options C1 and C2. These options are assessed as having the potential for a “Minor or Slightly Positive Impact” due to the improvements to amenity and recreational users. Options C1 and C2 are therefore the preferred option.

Option B has a greater potential for impact to properties, and lands zoned for development. As such Option B is assessed as having potential for “Minor or Slightly Negative Effects”, and is the least preferred option.

Option A is the do minimum option. As such there is no requirement for land take outside of the existing road curtilage. There is no potential for impact to lands zoned for development, to granted planning permissions, or to properties. As such, Option A is assed as having “Not Significant or Neutral Effects” and is the neutral option.

The results of the assessment are summarised below in Table 7-36.

Table 7-36: Non-Agricultural Properties Appraisal

Environmental				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Non-Agricultural Properties	Scheme Option A – ‘Do-Minimum’ Option	No properties, lands zoned for development, or granted planning permissions within the footprint of Option A. Two cycle routes and one walking route within the footprint of the option.	The long-term rise in traffic on the existing infrastructure has the potential to reduce the amenity value of the walking and cycle trails. However, the option consists of maintenance of the existing road and will not cause impacts to properties, development lands, or granted planning permission. As such, the scheme option is assessed as having not significant or neutral effects	4
	Scheme Option B – ‘Do-Something’ Management Option	Potential for impacts identified to external areas of one residential, five non-residential buildings and to landscaping outside of a strip of six residential buildings. Potential for increases to amenity value to the two-cycle route and one walking route within the footprint. Potential for impact to public facilities at St Patrick’s Church entrance and carpark. Slight negative impact to lands zoned for mixed use, commercial, existing residential and infill, community and education, and town centre. No potential for impact to granted planning permissions.	Given the potential for impact to zoned lands, and to St Patrick’s Church entrance and car park the option is assessed as having minor or slightly negative effects	3
	Scheme Option C (C1 & C2) – ‘Do-Something’ Development Option	Option C 1 and C2 are predominantly located within agricultural grassland. The scheme options cross into land associated with only one residential building. Potential for increases in amenity value to walking and cycling trails in the area. No impact to lands zoned for development as the options fall	Given that the impacts are neutral overall with the exception of the potential for improvements to amenity value of walking and cycling trails in the area, Options C1 and C2 are therefore assessed as having potential for minor or slightly positive impacts.	5

Environmental				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
		within lands zoned for the N11/N25 road scheme. No potential for impact to granted planning permissions.		

7.4.7 Architectural Heritage

This assessment addresses the impacts on architectural heritage of the proposed scheme options for the N25 Rosslare Europort Access Road.

7.4.7.1 Methodology

The following methodology was employed in the assessment of architectural heritage of the proposed routes (Options A, B, C) for this option selection report. Option C may be single carriageway (C1) or dual (C2). Centrelines for both sub-options are the same for the purposes of this study. The following datasets were consulted, and relevant data was collated and assessed for this project:

- Townland, parish and barony name information available at https://www.logainm.ie/en/. Accessed 8 July 2020.
- The National Inventory of Architectural Heritage and available through the Historic Environment Viewer available at https://webgis.archaeology.ie/historicenvironment/ Accessed 8 July 2020;
- The Historic Garden Survey available through the National Inventory of Architectural Heritage website available at https://www.buildingsofireland.ie/buildings-search/?query=&location_type=garden&county=WX&town=&townland=&group=&type=&date_from=&date_to=. Accessed 8 July 2020;
- Record of Protected Structures, Wexford County Council. Available at https://maps.wexford.ie/wab/HistoricaWexford/. Accessed 8 July 2020;
- GIS was used to measure distances of architectural features from the proposed scheme options. Initially, all features 250m or less from the centreline of each proposed route were listed and considered, and then in line with TII guidelines those architectural features 100m or less from the centreline of each proposed route were assessed;
- An excel spreadsheet framework for the recording of architectural constraints data was employed.

A report detailing a cultural heritage assessment of the area (D. Moore and N. Malcolm 2016 Cultural Heritage Assessment of proposed Rosslare Europort Access Road County Wexford (Unpublished report for Arup) was reviewed. It was deemed that the data contained in the report was robust enough in relation to Architectural Heritage to allow for the omission of new windshield surveys of the area as part of this assessment.

7.4.7.2 Desk Study/ field study

The proposed scheme options are contained within the townlands of Ballygerry,[10] Ballygillane Little[11] and a portion of Ballygillane Big.[12] All are located in the civil parish of Kilrane and the barony of Forth.[13] An area in the north eastern portion of the study area is reclaimed ground from the sea and on the first edition six-inch map dated to the mid nineteenth century is open water. Table 7-37 lists recorded architectural features 100m or less from the centreline of each proposed route. Descriptions are provided in Appendix D.

[10] https://www.logainm.ie/54371.aspx. Accessed 8 July 2020.
[11] https://www.logainm.ie/54373.aspx; Accessed 8 July 2020.
[12] https://www.logainm.ie/54372.aspx. Accessed 8 July 2020.
[13] https://www.logainm.ie/54372.aspx. Accessed 8 July 2020.

Table 7-37: Architectural features 100m or less from proposed scheme options[14]

ID	Scheme Options and Distance in metres = or <100m from centreline			Land Division	Site reference No.	Legal Status	Site Type	Categorisation
Cultural Heritage ID	Option A	Option B	Option C (C1 & C2)	Townland	NIAH ID	Record of Protected structures		NIAH rating
CH1	62.87	62.87	>100	Ballygillane Big	15704830	No	House	Regional
CH2	63.13	63.13	>100	Ballygillane Big	15704831	No	House	Regional
CH3	63.49	63.49	>100	Ballygillane Big	15704832	No	House	Regional
CH10	84.69	84.69	>100	Ballygillane Little	15704833	WCC1381	Coastguard station	Regional
CH11	29.68	29.68	>100	Ballygillane Little	15704834	WCC1380	Lighthouse keeper's house	Regional

14 CH4, CH5, CH6, CH7, CH8, CH9, CH12 features were greater than 100m from the centreline of each option and so does not appear in this table. Please refer to Appendix D cultural heritage for all monuments in the study area.

7.4.7.3 Impact Assessment Methodology

The impact assessment methodology employed in this assessment was taken from:

- Project Appraisal Guidelines for National Roads Unit 7.0–Multi Criteria Analysis (TII 2016, 2, 3, 7, 16, 18, 20, 21, 24);[15]
- Guidelines for the Assessment of Architectural Heritage Impacts of National Road Schemes (TII [formerly NRA] 2005, 20-32; esp. p. 21).[16]

The following guidance documents were also consulted:

- Framework and Principles for the Protection of the Archaeological Heritage (National Monuments Service [formerly Dúchas] 1999);[17]
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports Draft August 2017 (EPA 2017).[18]

7.4.7.4 Assessment of impacts

From the constraints study sixteen cultural heritage features of architectural merit were noted within the study area. Of these, five were found to be 100m or less from the centreline of the proposed Scheme Options A and B. There were no cultural heritage features of architectural merit 100m or less of the proposed Scheme Option C. Two of the five architectural heritage features are on the Record of Protected Structures (CH10 and CH11).Table 7-38 shows the predicted impacts on each of the five cultural heritage features of architectural merit, while Table 7-39 presents the potential for impact to features of architectural merit.

[15] Available at: https://www.tiipublications.ie/library/PE-PAG-02031-01.pdf. Accessed 8 July 2020.

[16] Available at: https://www.tiipublications.ie/downloads/SRM/14-Architectural-Planning-Guidelines-2005.pdf. Accessed 8 July 2020.

[17] Available at: https://www.archaeology.ie/sites/default/files/media/publications/framework-and-principles-for-protection-of-archaeological-heritage.pdf. Accessed 8 July 2020.

[18] Available at: https://www.epa.ie/pubs/advice/ea/EPA%20EIAR%20Guidelines.pdf. Accessed 8 July 2020.

Table 7-38: Assessment of type of impact and impact level of Scheme Options A, B and C on architectural features at a distance of 100m or less of options.

Cultural Heritage Site ID	Site Type	Type of impact Predicted	Distance from Scheme Option A in metres	Distance from Scheme Option B in metres	Distance from Scheme Option C in metres	Impact Level Predicted	Reasoning
CH1	House	No predicted impact	62.87	62.87	>100	Neutral	Due to distance from each proposed route no significant change in the feature's environment is predicted.
CH2	House	No predicted impact	63.13	63.13	>100	Neutral	Due to distance from each proposed route no significant change in the feature's environment is predicted.
CH3	House	No predicted impact	63.49	63.49	>100	Neutral	Due to distance from each proposed route no significant change in the feature's environment is predicted.
CH10	Coastguard station	No predicted impact	84.69	84.69	>100	Imperceptible negative	Due to distance from proposed route no change in the feature's environment is predicted. As feature is a Protected Structure mitigation may be required to avoid inadvertent impact during construction works for Option B. Should Option B be selected, it is recommended that its location is highlighted as an exclusion area in the construction contract documents
CH11	Lighthouse keeper's house	No predicted impact	29.68	29.68	>100	Imperceptible negative	Due to distance from proposed route no change in the feature's environment is predicted. As feature is a Protected Structure mitigation may be required to avoid inadvertent impact during construction works for Option B. Should Option B be selected, it is recommended that its location is highlighted as an exclusion area in the construction contract documents

Table 7-39: Summary of potential impacts on architectural heritage

Architectural heritage		Option A	Option B	Option C
7.1	**Potential for direct impacts to feature or site of architectural heritage merit**	None. All are considered a sufficient distance (4. not significant or neutral).	None. All are considered a sufficient distance (4. not significant or neutral).	None. All are considered a sufficient distance (4. not significant or neutral).
7.2	**Potential for indirect impacts to feature or site of architectural heritage merit**	One possible indirect impact to CH11 which is just under 30m from option. (3. Minor or slightly negative).	One possible indirect impact to CH11 which is just under 30m from option. (3. Minor or slightly negative).	None. All are considered a sufficient distance (4. not significant or neutral).

7.4.7.5 Conclusion and recommendations

There are no cultural heritage features of architectural merit within 100m of the centreline of proposed Scheme Option C. There are five cultural heritage features of architectural merit within 100m of the proposed road Scheme Option A and B. Of these five, two are Protected Structures (CH10, CH11). All are considered a sufficient distance from the proposed routes A and B so that no negative impacts are predicted. Due to the legal status of the Protected Structures, further mitigation is suggested to protected them from inadvertent damage depending on the construction techniques employed during any construction on Option B. The following mitigation is recommended: that their locations are highlighted as exclusion areas in the construction contract documents.

A route appraisal was carried out using the scoring procedure as set out in the document Unit 7 Multi Criteria Analysis cited in the methodology and in shown in Table 7-40 below.

Table 7-40: Architectural Heritage Appraisal

Environmental				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Architectural Heritage	Scheme Option A – 'Do-Minimum' Option	No impact on five architecture features predicted as sufficiently distant from centreline of route. No impact to two Protected Structures.	This option uses existing roadway with a new roundabout at its southern end. No feature is within 29 metres of the route.	4
	Scheme Option B – 'Do-Something' Management Option	No impact on five architecture features precited as sufficiently distant from centreline of route. Low to negligible risk of impact to two Protected Structures.	This option uses existing roadway with a new roundabout at its southern end with the likelihood that the route will be improved and upgraded. No feature is within 29 metres of the route.	3
	Scheme Option C – 'Do-Something' Development Option	No impact predicted on any architecture feature as all over 100m distant from centreline of route	This option proposes the construction of a new carriageway linking the Ballygerry Link Road with a proposed new roundabout at the northern end of route C. There are no architectural features within 100m of this option.	4

7.4.8 Archaeological and Cultural Heritage

This assessment addresses the impacts on archaeological and cultural heritage of the proposed scheme options for the N25 Rosslare Europort Access Road.

7.4.8.1 Methodology

The following methodology was employed in the assessment of archaeology and cultural heritage of the proposed routes (Options A, B, and C) for this option selection report. Option C may be single carriageway (C1) or dual (C2). Centrelines for both sub-options are the same for the purposes of this study. The data used was first gathered as part of the previous constraints study. The following datasets were consulted, and relevant data was collated and assessed:

- The Sites and Monuments Record (SMR) maintained by the Archaeological Survey of Ireland and available through the Historic Environment Viewer available at https://webgis.archaeology.ie/historicenvironment/ Accessed 8 July 2020;
- Wreck Inventory of Ireland Databased (WIID) maintained by National Monuments Service available at https://dahg.maps.arcgis.com/apps/webappviewer/index.html?id=89e50518e5f4437abfa6284ff39fd640. Accessed 8 July 2020;
- List of vested burial grounds, Wexford County Council. Available at https://wexford.maps.arcgis.com/apps/webappviewer/index.html?id=a5a6ba867c344449a30cd89f8168c355. Accessed 8 July 2020;
- List of historic lime kilns, Wexford County Council. Available at https://maps.wexford.ie/wab/HistoricaWexford/. Accessed 8 July 2020;
- Previous excavations and surveys available at https://excavations.ie/ and https://www.archaeology.ie/sites/default/files/media/publications/nms-archaeological-reports-finding-aid-02-2020.xlsx. Accessed 8 July 2020;
- Material culture cultural heritage: The Topographical Files at the Antiquities Division (consulted by appointment in December 2019);
- National Monument List for County Wexford. Available at https://www.archaeology.ie/sites/default/files/media/pdf/monuments-in-state-care-wexford.pdf. Accessed 8 July 2020;
- Preservation Order National List. Available at https://www.archaeology.ie/sites/default/files/media/publications/po19v1-all-counties.pdf. Accessed 8 July 2020;
- Register of Historic Monuments for Co. Wexford (latest dated 2009 supplied by NMS in pdf format);
- Townland, parish and barony name information available at https://www.logainm.ie/en/. Accessed 8 July 2020;
- Intangible cultural heritage and recorded folklore for Co. Wexford is available at https://www.duchas.ie/en. The main collections, the schools' collections and the photographic collection were searched by townland. Accessed 8 July 2020;
- GIS was used to measure distances of architectural features from the proposed scheme options. All features 250m or less from the centreline of each proposed scheme options were listed and considered;
- An excel spreadsheet framework for the recording of archaeological and cultural heritage constraints data was employed (Appendix D).

A report detailing a cultural heritage assessment of the area (D. Moore and N. Malcolm 2016 Cultural Heritage Assessment of proposed Rosslare Europort Access Road County Wexford (Unpublished report for Arup) was reviewed. It was deemed that the data contained in the report was robust enough in relation to Archaeological and Cultural Heritage to allow for the omission of new windshield surveys of the area as part of this assessment.

7.4.8.2 Desk Study/ field study

This study considered all recorded archaeology on land and underwater in relation to scheme options. Table 7-41 shows the results. It also considered artefact finds, licenced archaeological works and previous assessments available that were carried out within or in the immediate vicinity of the study area and the proposed scheme options. It is noted that the wreck (CH13) was originally underwater but due to the reclamation that has occurred at Rosslare Port, it is now situated on the land. Key features are presented in Appendix C (Figure 7.3).

Archaeological Objects

The Irish Antiquities Division's (National Museum of Ireland) topographical files were consulted for information on archaeological objects found in the study area. No results were returned for the townlands predicted to be impacted: Ballygerry, Ballygillane Big or Ballygillane Little. A search of the vicinity was also made for context. Two entries were returned. Both were human skeletal remains (material: human remains). The first at Rosslare Strand (reg. no. 2014:178), described as follows: 'Human remains reported and delivered to the office of the state pathologist in 2007. Subsequently handed to NMI by Ms L. Buckley'. The second find of human remains was at Rosslare Point (reg. no. 2016:06), described as follows: 'human remains retrieved from state pathology. No details available'.

Archaeological Investigations

In 1999, a preliminary archaeological assessment of the Rosslare Harbour interim drainage scheme was undertaken. It identified one area of archaeological potential in one of the trail pits where some worked lithics were discovered.[19] Subsequently, the area was excavated in advance of the water treatment plant at Ballygerry is an SMR (see CH25 on table). The excavation recorded a number of pits and linear features. A trench curved to the west at either end produced a sherd of coil-made pottery. Another pit had a large charcoal content, while charcoal from another trench produced a C14 date of 4060 +- 60 BP (*c.* 2,000–2,120 BC, Bronze Age). The area was truncated by furrows and most of the 28 sherds of unidentified pottery had no contexts.[20] Archaeological monitoring was carried out along roads on part of the drainage scheme. Nothing of an archaeological nature was discovered.[21] In 2016, a cultural heritage impact assessment was undertaken of a proposed Rosslare Europort Access Road.[22] In the same year, several test pits were archaeologically monitored along a route developed for the Rosslare Europort Access Road corresponding with Scheme Option C of this report. Nothing of an archaeological nature was discovered.[23] Other investigations in the wider area have identified a number of ring ditches; all of these are outside the project study area and none is within 400m of any proposed scheme option. These are mentioned for archaeological context and are not predicted to be impacted.[24]

Folklore

The National Folklore Collection was searched for any information relating to the townlands of the study area. From the Schools' Collection (Kilrane School, Tagoat, Co. Wexford), Ballygillane is recorded in song 'The Kilmore Boys' written 'about eighty years ago' about men who travelled from Wexford to Argentina.[25]

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[19] Elder, S. 1999 A preliminary archaeological assessment of Rosslare Harbour interim drainage scheme Rosslare Harbour, Co. Wexford. Unpublished report.

[20] Henry, M. 2004 Report on archaeological excavation at Ballygerry, Rosslare, Co. Wexford. Licence: 04E1214. Unpublished report.

[21] Henry, M. 2005 Archaeological monitoring on part of the Rosslare Harbour interim drainage scheme. Licence: 05E0892. Unpublished report.

[22] Moore, D. and Malcolm 2016 Cultural Heritage Assessment of proposed Rosslare Europort Access road, Co. Wexford issued to Arup. Unpublished report.

[23] Noonan, D. 2016 Archaeological monitoring report. Rosslare Europort Access Road. Attendance to ground investigations—test pits 118–123. Unpublished report.

[24] These monuments were located during assessment and testing. They have been allocated SMR nos: WX048-154001-, WX048-154002-, WX048-154003-, WX048-156---.

[25] Available at: https://www.duchas.ie/en/cbes/5009245/5001156; and https://www.duchas.ie/en/cbes/5009246/5001235/5123952. Accessed 22 July 2020.

Table 7-41: Archaeological features 250m or less from proposed scheme options[26]

ID	Scheme Options and Distance in metres = or < 250m from centreline (within 500m corridor)			Land Division	Site reference No.			Legal Status					Site Type
Cultural Heritage ID	Option A	Option B	Option C (C1 and C2)	Townland	SMR no.	WIID	Licence no.	RMP	Scheduled for inclusion in next revision of RMP	National Monument in state care	Subject to preservation order	Listed in Register of Historic monuments	
CH13	164.77	164.77	>250	BALLYGILLANE LITTLE (off)	n/a	W10425	n/a	No	n/a	No	No	No	Wreck
CH20	>250	>250	129.99	BALLYGERRY	WX048-017----	n/a	n/a	Yes	Yes	No	No	No	House - 17th century
CH21	>250	>250	92.90	BALLYGERRY	WX048-018----	n/a	n/a	No	Yes	No	No	No	Windmill
CH25	>250	>250	150.03	BALLYGERRY	WX048-155----	n/a	04E1214; 05E0892	No	Yes	No	No	No	Excavation-miscellaneous
CH27	195	195	23	BALLYGERRY-BALLYGILLANE LITTLE	None	None	None	No	No	No	No	No	Townland boundary
CH28	>250	>250	65	BALLYGERRY	None	None	None	No	No	No	No	No	Culvert
CH29	>250	>250	94	BALLYGERRY-CHURCHTOWN	None	None	None	No	No	No	No	No	Townland boundary
CH30	>250	>250	55	BALLYGERRY	None	None	None	No	No	No	No	No	Station (train)

[26] Please refer to Appendix D cultural heritage for all monuments in the study area and extra detail.

7.4.8.3 Impact Assessment Methodology

The impact assessment methodology employed in this assessment was taken from:

- Project Appraisal Guidelines for National Roads Unit 7.0–Multi Criteria Analysis (TII 2016, 2, 3, 7, 16, 18, 20, 21, 24);[27]
- Guidelines for the Assessment of Archaeological Heritage Impacts of National Road Schemes (TII [formerly NRA] 2005, 20-32).[28]

The following guidance documents were also consulted:

- Framework and Principles for the Protection of the Archaeological Heritage (National Monuments Service [formerly Dúchas] 1999);[29]
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports Draft August 2017 (EPA 2017).[30]

7.4.8.4 Assessment of impacts

From the constraints study ten cultural heritage features of archaeological merit (including underwater archaeology) were noted. Of these, four were found to be 250m or less of the proposed Scheme Options A, B and C. One is currently an RMP. The following table, Table 7-42 shows the predicted impacts on each of the four cultural heritage features of archaeological merit.

An overall summary of assessment of the potential impacts to archaeological and cultural heritage is presented below in Table 7-43.

[27] Available at: https://www.tiipublications.ie/library/PE-PAG-02031-01.pdf. Accessed 8 July 2020.

[28] Available at: https://www.tii.ie/technical-services/environment/planning/Guidelines-for-the-Assessment-of-Archaeological-Heritage-Impact-of-National-Road-Schemes.pdf. Accessed 8 July 2020.

[29] Available at: https://www.archaeology.ie/sites/default/files/media/publications/framework-and-principles-for-protection-of-archaeological-heritage.pdf. Accessed 8 July 2020.

[30] Available at: https://www.epa.ie/pubs/advice/ea/EPA%20EIAR%20Guidelines.pdf. Accessed 8 July 2020.

Table 7-42: Assessment of type of impact and impact level of Scheme Options A, B and C on archaeological and cultural heritage features at a distance of 250m or less of options.

Cultural Heritage Site ID	Site Type	Type of Impact Predicted	Distance from Scheme Option A in metres	Distance from Scheme Option B in metres	Distance from Scheme Option C in metres	Impact Level Predicted	Reasoning
CH13	Wreck	No predicted impact	164.77	164.77	>250	Neutral	Due to distance from each proposed route option no significant change in the feature's environment is predicted.
CH20	House - 17th century	No predicted impact	>250	>250	129.99	Neutral	Due to distance from proposed scheme no change in the feature's environment is predicted.
CH21	Windmill	No predicted impact	>250	>250	92.90	Neutral	Due to distance from proposed scheme no change in the feature's environment is predicted.
CH25	Excavation-miscellaneous	No predicted impact	>250	>250	150.03	Neutral	Due to distance from proposed scheme no change in the feature's environment is predicted. This is the location of an excavation the archaeological remains have been preserved by record and a water treatment plan now occupies the site.
CH27	Townland boundary	Predicted impact (low)	195	195	23	Neutral (A&B)/ Minor or slightly negative (C)	Due to distance from proposed scheme for Options A and B no change in the feature's environment is predicted. A change in the feature's environment many be predicted in Option C.
CH28	Culvert	No predicted impact	>250	>250	65	Neutral	Due to distance from proposed scheme no change in the feature's environment is predicted.
CH29	Townland boundary	No predicted impact	>250	>250	94	Neutral	Due to distance from proposed scheme no change in the feature's environment is predicted.
CH30	Station (train)	No predicted impact	>250	>250	55	Neutral	Due to distance from proposed scheme no change in the feature's environment is predicted.

Table 7-43: Summary of potential impacts on archaeological and cultural heritage

Potential for impact to	Option A	Option B	Option C
Potential for impact to feature listed on national monuments and register of historic monuments	None. No national monuments or register of historic monuments in study area. (4. not significant or neutral).	None. No national monuments or register of historic monuments in study area. (4. not significant or neutral).	None. No national monuments or register of historic monuments in study area. (4. not significant or neutral).
Potential for impact to feature listed on the record of monuments and places	One RMP (recorded monument and place) CH20. No impact predicted as sufficient distance from scheme option. (4. not significant or neutral).	One RMP CH20. No impact predicted as sufficient distance from scheme option. (4. not significant or neutral).	One RMP CH20. No impact predicted as sufficient distance from scheme option. (4. not significant or neutral).
Potential for impact to feature listed on sites and monuments record	Two SMRs (sites and monuments record) CH21 and CH25. No impact predicted as sufficient distance from scheme option. (4. not significant or neutral).	Two SMRs CH21 and CH25. No impact predicted as sufficient distance from scheme option. (4. not significant or neutral).	Two SMRs CH21 and CH25. No impact predicted as sufficient distance from scheme option. (4. not significant or neutral).
Potential for impact to unrecorded cultural heritage features	None. No unrecorded cultural heritage features predicted to be impacted. (4. not significant or neutral).	None. No unrecorded cultural heritage features predicted to be impacted. (4. not significant or neutral).	Four unrecorded cultural heritage features CH27, CH28, CH29 and CH30 are all within 100m of this option. CH27 is the closest at 23m from the centreline. Impacts have already occurred on this townland boundary and it may be negatively impacted by this option (3. Minor or slightly negative).
Potential for impact to access to features	Not predicted to impact on current access to monuments.	Not predicted to impact on current access to monuments.	Not predicted to impact on current access to monuments.

7.4.8.5 Conclusion and recommendations

Eight archaeological and cultural heritage monuments lay within 250m of the centrelines of the proposed scheme options. None is predicted to be impacted by either of the proposed Scheme Options A, and B. One is predicted to be impacted by Option C; it is a townland boundary (CH27) and is 23m from the centreline of this route. The assessment is summarised below in Table 7-44. The following mitigation is recommended: that the locations of the archaeological and cultural heritage features within 100m of scheme are highlighted as exclusion areas in the construction contract documents. CH27 is 23m from Option C. If this feature is impacted, it is recommended that an archaeological record be made of the townland boundary before its removal.

Table 7-44: Archaeological and Cultural Heritage Appraisal

Environmental

Criterion	Scheme Option	Quantitative Assessment	Qualitative Assessment	Score
Archaeological and Cultural Heritage	Scheme Option A – 'Do-Minimum' Option	No predicted impact on two archaeological monuments including one wreck predicted as sufficiently distant from centreline of route.	This option uses existing roadway with a new roundabout at its southern end. No monument is within 163 metres of the route.	4
	Scheme Option B – 'Do-Something' Management Option	No predicted impact on two archaeological monuments including one wreck predicted as sufficiently distant from centreline of route.	This option uses existing roadway with a new roundabout at its southern end with the likelihood that the route will be improved and upgraded no monument is within 163 metres of the route.	4
	Scheme Option C – 'Do-Something' Development Option	No predicted impact on six archaeological monuments and cultural heritage features as sufficiently distant from centreline of route. One (CH27) is 23m from the centreline of this option and may be impacted in a minor/slightly negative way.	This option proposes the construction of a new carriageway linking the Ballygerry Link Road with a proposed new roundabout at the northern end of route C. There are four previously unrecorded cultural heritage features within 100m of this option and the closest is 23m (CH27)	3

7.4.9 Landscape & Visual

This Options Selection Report examines the potential effects of each of the three identified scheme options on landscape elements and visual receptors within the study area.

The landscape is the visible environment in its entirety, comprised of both natural and built elements including topography, water bodies, vegetation, wildlife habitats, open spaces, buildings and structures. Landscape and visual sensitivities considered include statutory and non-statutory landscape designations, natural features, landscape character areas, notable deciduous trees of woodland, amenities and historic landscapes.

Landscape and visual constraints are examined as two discrete topics:

- Landscape - is concerned with alteration to the physical landscape and features which contribute to the formation of its character; and
- Visual - is concerned with changes that may arise in the overall visual amenity enjoyed by people.

7.4.9.1 Methodology

The landscape and visual assessment is derived from the methods described in the Design Manual for Roads and Bridges (UK)[31], and Guidelines for Landscape and Visual Impact Assessment (UK),[32] which has been referred to as appropriate for the level of assessment necessary at this Option Selection Stage. The project is being progressed in accordance with the phased approach to developing a major road scheme identified in the NRA National Roads Project Management Guidelines (2010) and follows the methodologies contained in the NRA document Project Appraisal Guidelines for National Roads Unit 7.0 – Multi Criteria Analysis[33].

7.4.9.2 Desk Study

The methodology for Landscape and Visual involved a desk study of the relevant County Development Plans (CDPs) to ascertain the most valuable and sensitive landscapes and, along with a variety of other sources, to identify sensitive visual receptors that may be impacted by views of the scheme options. This desk study was based on a review of the following sources:

- Wexford County Development Plan 2013-2019;
- National Parks and Wildlife Service;
- The Heritage Council – HeritageMaps.ie;
- Ordnance Survey maps;
- Sport Ireland Trails; and
- Google Maps.

7.4.9.3 Field study

A site visit was undertaken in early August 2020 to establish an understanding of the landscape and visual context of the proposed scheme options and to validate the County Landscape

[31] Design Manual for Roads and Bridges Volume 11, Section 3 for Stage Two Assessment (UK DMRB, 1994)

[32] Landscape Institute and the Institute of Environmental Management and Assessment (eds.) (2013) Guidelines for Landscape and Visual Impact Assessment. Routledge, Oxon.

[33] TII. 2016. Project Appraisal Guidelines for National Roads Unit 7.0 - Multi Criteria Analysis PE-PAG-02031.

Character Assessment. Fieldwork was undertaken from the road network within the public realm and not in the form of a walkover of private lands.

7.4.9.4 Assessment Criteria

The comparative evaluation of options was assisted by scoring of impacts to sensitive receptors using the Stage 2 project appraisal matrix set out in the Project Appraisal Guidelines for National Roads Unit 7.0 - Multi Criteria Analysis[33]. Each impact is scored based on the seven-point scale as and a number is assigned according to the level of significance of the impacts. The PAG seven-point scale scoring procedure is outlined hereunder:

7 – Major or highly positive;

6 – Moderately Positive;

5 – Minor or slightly positive;

4 – Not significant or neutral;

3 – Minor or slightly negative;

2 – Moderately negative; or

1 – Major or highly negative.

7.4.9.5 Assessment of impacts

Potential for Visual Impacts

As Scheme Option A consists of the maintenance of the existing roadway there is no change associated with this option. The visual impact associated with this route is assessed as being “Not Significant or Neutral”.

Visual impacts associated with Scheme Option B are likely to be in the lower order of magnitude as the proposed development will present as an extension to an existing land use and will not be out of keeping with the surrounding area.

The following potential for visual impacts associated with Scheme Option B were noted:

- Potential visual impacts to the front of St. Patrick’s R.C. Church as the scheme option involves a notable area of land take to the front of the church.
- Potential for negative visual impacts along sections of the Wexford Cycle Hub Loop.
- Minor negative visual impacts along the existing road as a result of the widening of the existing corridor, however these effects have to potential to be ameliorated by the proposed green corridors between the carriageways which will soften the proposed road upgrade. This could result in positive impacts in comparison to the existing baseline scenario where the median strip comprises of road markings and asphalt.
- Potential for negative visual impacts from proposed pedestrian overpass at the northern extents of the proposed road upgrade.
- Potential for positive effects with the introduction of areas of amenity planting between carriageways and along the verge of the proposed scheme option.

Potential visual impacts associated with Scheme Option B are therefore assessed as “Not Significant or Neutral”.

The following potential visual impacts associated with Scheme Option C1 and C2 were noted:

- Potential for localised negative visual impacts from surrounding local roads where the elevated sections of the proposed road alignment will be visible to the rear of a row of residential dwellings. This is also assessed under Residential Visual Amenity.
- Potential for negative visual impacts from the railway line.
- The proposed roadway will be visible along the immediate coastline from a small boating harbour to the east of the site. Whilst typically coastal areas of the landscape are highly sensitive, this section of coastline is already heavily influenced by the existing Rosslare Europort which will slightly diminish potential visual effects.
- There is potential for some of the impacts due to options C1 and C2 to be mitigated through amenity planting. Where in the case of Option B this has the potential to enhance the streetscape baseline scenario in the case of options C1 and C2 the objective would simply be to screen the scheme option and reduce potential visual impacts.

Potential visual effects associated with options C1 and C2 were assessed as “Moderately Negative”.

Potential for Landscape Impacts

As Scheme Option A consists of the maintenance of the existing roadway there is no change associated with this option. The landscape impact associated with this route is assessed as being “Not Significant or Neutral”.

Scheme Option B involves an area of land take to the east of the existing N25 and north of St Martins Road.

The following activities have the potential for minor negative impacts to landscape features from Option B:

- Proposal involves an area of land take to the east of the existing N25 and north of St Martins Road.
- Likely removal of mature tree line and areas of scrubby vegetation.
- Proposal involves an area of land take to the west of the existing N25 corridor to in the townland of Ballygillane little. Likely removal of up to c.400m of existing hedgerow to facilitate the footprint of the proposed scheme. Proposed corridor will also slightly alter the existing field pattern to the west.
- Small areas of vegetation/hedgerow removal which are likely necessary to facilitate new road intersections along the proposed scheme.

Potential landscape impacts associated with Scheme Option B were assessed as “Minor or Slightly Negative”.

Scheme Options C1 and C2 have the potential to result in the following impacts to landscape features

- Likely removal of several sections of hedgerows and areas of scrubby vegetation to facilitate the footprint of the scheme.
- The proposed schemes will notably alter the existing field pattern and will result in awkward left-over areas - most notably between the dwellings immediately to the east of the elevated sections of the scheme options.
- The proposed scheme option corridor encroaches on some of the more sensitive coastal areas of the landscape to the north of the existing railway line and will result in the removal of areas of scrubby grassland that backs the coastline.

Potential landscape impacts associated with Scheme Options C1 and C2 were assessed as “Minor or Slightly Negative”

Potential for impacts on residential visual amenity

As Scheme Option A consists of the maintenance of the existing roadway there is no change associated with this option. The landscape impact associated with this route is assessed as being "Not Significant or Neutral".

The following impacts on residential visual amenity associated with Scheme Option B were identified:

- Potential for impacts at The Moorings residential housing estate to the east of N25. A high degree of existing mature vegetation exists between these dwellings and the proposed development and should heavily screen any proposed works.
- Potential for visual impacts at several other detached dwellings in the surrounds of the proposed road upgrade, however this will be in the lower order of magnitude as these effects will typically be that of the intensification of an existing land uses rather than the introduction of an new and unfamiliar land use.

Potential impacts associated with Scheme Option B on residential visual amenity were assessed as "Not Significant or Neutral".

The following impacts on residential visual amenity associated with Scheme Options C1 and C2 were identified:

- Potential for impacts on residential visual amenity at dwellings along the local road to the immediate east of the elevated sections of the proposed road corridor. The proposed road may result in an increased sense of enclosure to the rear of these dwellings and the resulting moving vehicles will noticeable alter the existing pastoral field context.
- Proposed road alignment is located immediately southwest of a residential dwelling in the townland of Ballygerry. The rear of this existing dwelling is oriented in a southwest direction and will look directly over the proposed road corridor. Potential for significant impacts to occur here as the proposed alignment cut through the rear of this property.
- Potential impacts on residential visual amenity at a dwelling to the west of the elevated sections of the proposed road alignment.
- Potential for impacts on residential visual amenity at dwellings south of the railway line. Dwellings typically oriented towards to coastline, however the proposed road corridor is to be in cut here and will likely be partially screened from view.

Potential for impacts associated with Scheme Options C1 and C2 are assessed as "Moderately Negative".

7.4.9.6 Conclusion and recommendations

As Scheme Option A consists of the maintenance of the existing roadway there is no change associated with this option. The landscape and visual impacts associated with this scheme option are assessed as being "Not Significant or Neutral". Scheme Option A is the preferred option.

Landscape and Visual impacts associated with Scheme Option B are in the lower order of magnitude as the proposed development will present as an extension to an existing land uses and will not be out of keeping with the surrounding area. Scheme Option B is assessed as "Minor or slightly negative" and is least preferred.

Negative impacts associated with Scheme Option C were recorded for landscape, visual and visual amenity criteria. There was no significant difference between Scheme Options C1 and C2. As such, Scheme Option C1 and C2 are assessed as "Moderately Negative" and is least preferred. The results are summarised in Table 7-45.

Table 7-45: Landscape & Visual Appraisal

Environmental

Criterion	Scheme Option	Quantitative Assessment	Qualitative Assessment	Score
Landscape and Visual	Scheme Option A – 'Do-Minimum' Option	No potential for visual impacts. No potential for landscape impacts No potential for visual amenity impacts	As Scheme Option A consists of the maintenance of the existing roadway there is no change associated with this option. The landscape and visual impacts associated with this scheme option are therefore assessed as being "Not Significant or Neutral".	4
	Scheme Option B – 'Do-Something' Management Option	Potential negative visual impacts identified to: • St Patricks church • Wexford Cycle hub hoop • Receptors along the existing road Potential for positive visual impacts identified with the introduction of areas of amenity planting. Potential Negative impacts to Landscape identified through: • Loss of mature treeline and scrub east of existing N25 • Loss of hedgerows west of N25 • Alteration to existing field patterns • Loss of small pockets of vegetation and hedgerow to facilitate road intersections Potential negative visual amenity impacts identified to: • The moorings residential estate • Detached residential dwellings in the surrounds of the proposed upgrade.	Landscape and Visual impacts associated with scheme Option B are in the lower order of magnitude as the proposed development will present as an extension to an existing land uses and will not be out of keeping with the surrounding area. Scheme Option B is assessed as "Minor or slightly negative".	3
	Scheme Options C (C1 and C2) – 'Do-Something' Development Option	Potential negative visual impacts identified to: • Localised impacts from surrounding local roads where the elevated sections of the proposed road alignment will be visible to the rear of a row of residential dwellings. • Visual impacts from the railway line Potential negative impacts to landscape identified through: • Removal of several sections of hedgerows and areas of scrubby vegetation to facilitate the footprint of the scheme option • Option encroaches on some of the more sensitive coastal areas of the and will result in the removal of areas of scrubby grassland that backs the coastline. Potential negative visual amenity impacts identified to: • Impacts on residential visual amenity at dwellings along the local road to the immediate east of the elevated sections of the proposed road corridor.	Negative impacts associated with scheme Option C were recorded for landscape, visual and visual amenity criteria. There was no significant difference between Scheme Options C1 and C2. As such, Scheme Option C1 and C2 are assessed as "Moderately Negative".	2

Environmental

Criterion	Scheme Option	Quantitative Assessment	Qualitative Assessment	Score
		• Potential for significant impacts to occur to one residential house as the proposed alignment cuts through the rear of this property. • impacts on residential visual amenity at a dwelling to the west of the elevated sections of the proposed road alignment. • impacts on residential visual amenity at dwellings south of the railway line.		

7.4.10 Soils and Geology

7.4.10.1 Methodology

This Impact assessment has been carried out in general accordance with methodology presented in the National Roads Authority (NRA) Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes.

7.4.10.2 Desk Study/ field study

The assessment of each of the scheme options has been carried out using information gathered at Constraints Study Phase. Details of the information used for the purpose of this assessment are presented in Table 7-46 below.

Table 7-46: Sources of Data

Feature	Source
Bedrock geology	Geological Survey Ireland, 1:100 000 bedrock mapping (www.gsi.ie) Regional memoir
Subsoils (Quaternary deposits) Geohazards Economic Geology Aquifer type Aquifer vulnerability Source Protection Areas Wells and Sprigs Drinking Water Sources	Geological Survey of Ireland (www.gsi.ie)
Soils	Environmental Protection Agency (EPA), Mapping (http://gis.epa.ie) Teagasc – Agriculture and Food Development Agency (https://www.teagasc.ie/)
Historic Mapping Aerial Photography	Ordnance Survey Ireland (https://www.osi.ie/)

7.4.10.3 Impact Assessment Methodology

The assessment of likely impacts resulting from each scheme option has been carried out using the information obtained from desk study and field survey of the site. The aspects assessed generally follow those described in Section 2 of the NRA Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes. The impacts affecting soils and geology have been identified and assigned an attribute rating in accordance with Table 4.2 of the same Guidelines.

The following aspects, as broadly outlined in Section 2 of the above Guidelines, have been assessed in respect of each scheme option:

Soils and Geology

- Agricultural Soils
- Geology (subsoil / solid)
- Geohazards
- Geomorphology
- Made Ground
- Construction Materials

- Construction Stage Inputs

Owing to their alignments no scheme options were considered to impact on the following attributes:

- **Soils and Geology**; Economic Geology, Geological Heritage

The assessment approach has been to count the number of Impact Levels under each of the headings given in Table 4.2 of the Guidelines and undertake a qualitative assessment of each scheme option to determine the preferred option in respect to its impact on Soils and Geology. Table 7-47 summarises below the impact levels given in Table 4.2 of the guidelines.

Table 7-47: Summary of impact level scoring methodology

Impact Level
Severe Negative
Major Negative
Moderate Negative
Minor Negative
Neutral
Minor Positive

Based on the impact assessment for each scheme option a summary table has been prepared for the scheme options in accordance with Table 7.1.3 of the Project Appraisal Guidelines for National Roads Unit 7.0 – Multi Criteria Analysis (MCA) (PE-PAG-02031, October 2016). This includes an impact score, in accordance with Section 2.4 of the MCA, based on the impact level determined for Soils and Geology.

7.4.10.4 Overview of Solid Geology, Subsoils and Soils

Solid Geology and Subsoils

The 1:100 000 scale geological mapping of the study area shows that all options are located in in the same geological setting. The subsoil, or superficial deposits, consist of Glacial Till derived from Cambrian aged sandstones and shales. Underlying this the solid geology comprises a thick sequence of amphibolite, a green highly foliated metamorphosed igneous rock with minor schists.

Maps showing the superficial and bedrock geologies are presented in Appendix C Figure 7.4 and 7.5.

Ground investigations (GI) specific to Delap's Hill, situated on the alignment of Option A and B, were undertaken in 2008. An investigation specific to Option C was undertaken in 2016. Both investigations confirmed the geological mapping of the area.

Details of ground investigations

The investigative works undertaken are summarised in Table 7-48 and Table 7-49 below.

Table 7-48: Summary of ground investigation Delap's Hill (Option A & B)

Method	Number	Maximum depth (mBGL)
Cable Percussion	2	7.8
Rotary Coring	1	21.0

Laboratory classification testing was undertaken on samples recovered during the investigation. This comprised Atterberg limit tests and Particle Size Distribution determination.

Table 7-49: Summary of ground investigation Option C

Method	Number	Maximum depth (mBGL)
Cable Percussion	18	15.0
Cable Percussion with Rotary Coring follow on	8	25.0
Wireline Rotary Coring	4	20.0
Trial Pitting	34	4.6
Slit Trenching (services location)	6	1.4
Pavement Coring	10	0.237
Geophysical Investigation	3 (transects)	N/A

Laboratory testing was undertaken on samples recovered during the investigation. The testing included:

- Natural moisture content;
- Atterberg limits;
- Particle sized distribution;
- Unconsolidated “Quick” and consolidated undrained testing;
- BRE Special Digest 1 chemical testing;
- CBR, MCV relationship and compaction testing;
- Point load testing;
- Geoenvironmental testing.

Ground conditions identified from ground investigation – Delap’s Hill (Option A & B)

At Delap’s Hill the GI generally described the superficial deposits, underlying the pavement construction, as firm greyish brown clay. These in turn overlay the bedrock, which was recovered as an angular to subangular fine to coarse gravel with cobble sized clasts of an apparently igneous origin. Bedrock was encountered at a depth of 17.80mBGL although it should be noted that the locations and ground levels of the exploratory holes are not known.

No analysis of the geotechnical testing undertaken following completion of the GI at Delap’s Hill has been undertaken in respect to the scheme option selection.

Ground conditions identified from ground investigation – Option C

The GI specific to Option C encountered the following materials:

- Topsoil – generally described as a soft to firm slightly gravelly slightly sandy clay;
- Made Ground – variably described as a medium dense slightly clayey sandy gravel or firm slightly sandy slightly gravelly clay. Inclusions within the Made Ground included brick, concrete and plastic. Soft or very soft silt was identified in the Made Ground in 2 trial pits.
- Glacial Till – described within 600mm of ground level as a soft to firm slightly sandy slightly gravelly clay generally becoming firm to stiff at greater depth; and
- Amphibolite – described a moderately weak fine-grained metamorphic rock with schistose fabric.

A preliminary ground model prepared using the GI data specific to Option C and presented in Appendix K Figure 0.1 to Figure 0.3, shows Made Ground to be present in the vicinity of the proposed railway over bridge, associated with the location of the original Rosslare Harbour Station at approximate chainage (Ch) 1000 and at the new port entrance, Ch 1500, which is understood to be associated with the reclamation of the land in that area to form the port. A localised area of

Made Ground was also identified at Ch 750 which may be associated with historical agricultural activity in that area. A plan showing the Option C chainages is presented in Appendix B.

Glacial Till was identified across the whole of the Option C route becoming deeper on the northern side of the railway towards the new port access.

Bedrock was encountered at approximately 7mBGL in the vicinity of the railway over bridge but was not identified in exploratory holes drilled to depths of 15mBGL on the approach to the new port access. This indicates that the depth to rockhead increases between the railway overbridge and port entrance.

Analysis of the geotechnical testing completed following the ground investigations has not been undertaken. A review of the geoenvironmental testing completed following the GI specific to Option C did not identify the presence of any contaminants within the samples tested. There is, however, potential for contamination to be present as a consequence of former land use particularly in the vicinity of the infrastructure associated with the location of the original Rosslare Harbour Station.

No soil survey sampling was undertaken during the GI to confirm the classifications given by the EPA or Teagasc.

Soils

The Corine Landcover Mapping given by EPA of the study area presented in Appendix C Figure 7.6 shows that Scheme Options A and B are situated on ‘discontinuous urban fabric’. Scheme Option C commences in the same landcover before entering ‘non-irrigated land’ for the majority of the route. The port entrance area is defined as ‘sea ports’.

A review of the National Soil Survey of Ireland mapping of County Wexford, available on the Teagasc website, shows the agricultural land crossed by Scheme Option C as being named as Macamore and described as a dense drift (glacial till) of Irish Sea origin, calcareous and poorly drained. The Soil Suitability Map indicates that it is mainly of moderate to poor suitability for cultivated crops and of moderate suitability for pasture or forestry. It has a limited range of uses due to naturally poor drainage and adverse soil physical conditions. The Soil Drainage Map again states that the soil is poorly drained having a slow permeability and deep-water table.

The soils classified by the Soil Survey of Ireland are derived from the superficial deposits that are present across the study site and underly all the scheme options however it is only where Option C crosses agricultural land that an impact assessment needs to be made. For Scheme Option A no agricultural land will be impacted and for Scheme Option B a very nominal amount of land take is required. A significant proportion of Scheme Option C crosses agricultural land.

7.4.10.5 Ground conditions

Scheme Option A and B

The ground conditions which underly Scheme Options A and B primarily comprise Made Ground forming the existing highway infrastructure which has been constructed on Glacial Till underlain, at depth, by the amphibolite bedrock.

In respect of Scheme Option B, a narrow strip of land is required on the western side of the N25 between the Ballygillane Roundabout and the access to Mary’s Terrace Road. This land take will occupy uncultivated agricultural land as described in the section “Soils” above.

Scheme Option B also includes works to address the stabilisation of Delap’s Hill. In this location the Made Ground of the existing carriageway construction is underlain by Glacial Till in turn

underlain by the amphibolite bedrock. Remedial works at Delap's Hill will impact both the superficial and solid geology.

Scheme Option C

Scheme Option C follows the alignment of the Ballygerry Link Road (L3068-1) before crossing open agricultural land and turning north towards the railway. The agricultural land is derived from the Glacial Till and is generally described as being soft to depths of approximately 600mm. This is likely to be associated with disturbance of the ground by ploughing over a considerable period. Underlying this is the undisturbed Glacial Till estimated to be a minimum of 5m deep.

Where the alignment crosses the railway, Made Ground up to 3m thick, associated with the original location of Rosslare Harbour Station, was encountered. This material has the potential to be contaminated and of variable strength. Voids may also be present where buildings have been demolished. Underlying this, Glacial Till is present to depths of approximately 6mBGL at which depth weathered bedrock is encountered.

On the northern side of the railway the alignment turns east across agricultural land derived from Glacial Till approximately 7m thick underlain by weathered bedrock. The alignment then follows the access route to the Small Boat Harbour located between the crests of the relict sea cliff and railway cutting. In this section of the route the ground conditions comprise Made Ground up to 1.5m thick underlain by Glacial Till the depth of which was not proven but which geophysical surveys indicate to be up to 15m thick. Underlying this the weathered bedrock was indicated to be present. Where the alignment enters the port access area Made Ground is present at depths of up to 5m associated with the reclamation of land during the development of the port.

7.4.10.6 Historical land use

Scheme Options A and B

A review of historical mapping available on the OSI website shows that between 1837 – 1842 no development had started in the area of Rosslare Harbour with the land use being exclusively agricultural.

The 1888 to 1913 mapping shows the initial development of properties as a result of the construction of the port, opened in 1906. The route now occupied by the N25 on its approach to Delap's Hill can be seen, as too can the railway infrastructure serving the port, Rosslare Pier and the access route into the port via Delap's Hill.

By the early 1900's further residential development can be seen at Rosslare Harbour and the construction of roads serving those properties has been completed. Accretion of sediment has changed the coastline in the vicinity of the port and further rail infrastructure has been built. The access to the port is now via a cast iron bridge at the bottom of Delap's Hill. Access to Rosslare Harbour is via lanes that approach from the west via Kilrane then turn north through Ballygerry before turning east onto the current alignment of the N25 at the top of Delap's Hill.

Through the 1960's and into the 1990's further development of the port was undertaken using land reclamation to provide additional facilities. The route of the N25 was diverted away from Ballygerry and having passed through Kilrane it turned north towards the top of Delap's Hill. The original cast iron bridge that allowed access from the bottom of Delap's Hill into the port was removed and the road continued on the southern side of the railway to enter the port at the termination of the railway line.

Scheme Option C

No significant development along the alignment of Scheme Option C is shown on historical mapping until between 1888 to 1913 when Rosslare Harbour Station is shown in the location of the proposed railway over bridge.

No further development is shown on the mapping available for the early 1900's however Rosslare Harbour Station has now been re-named Kilrane Station.

The date of construction of the Small Boat Harbour, situated to the north of the proposed cutting required to access the new port entrance, has not been identified. The current access to the Small Boat Harbour is via a single-track paved road. The alignment of Option C follows this access track and during construction access to the Small Boat Harbour will have to be maintained via an alternative route.

The National Vehicle Distribution site was built to the south west of the route between 1992 and 1995 and the Ballygerry Link road (L3068-1) was constructed in 2008, this forms the first section of Scheme Option C.

7.4.10.7 Economic geology

No extractive industries or resources have been identified in respect of any of the scheme options.

7.4.10.8 Geological heritage

No sites of geological interest have been identified from the GSI data base in respect of any of the scheme options. The closest is Greenore Point located approximately 1.5km south east of the Europort.

7.4.10.9 Geohazards

The GSI mapping of the study area does not indicate the presence of landslides along the alignment any of the scheme options. Scheme Options A and B both utilise the existing alignment of the N25 including Delap's Hill. This section of the N25 has been the location of slope failures and has required remedial works over several years.

Option C accesses the port by cutting down through the relict sea cliff that would have formed the coastline prior to the construction of the port infrastructure. There is potential for shear surfaces to be present within this section of the route associated with the original regression of the sea cliff.

7.4.10.10 Geomorphology

The geomorphology of the study area comprises a level coastal plain bounded by sea cliffs. Where unprotected the coastline is understood to be receding by approximately 0.5m per year and protection measures have implemented along Rosslare Strand located to the north of the study area.

A short section of Option C comes within approximately 130m of the unprotected coastline. In addition, Option C requires the construction of a cutting through the relict sea cliff that was isolated from erosion by the construction of Rosslare Harbour and the reclamation of land associated with that work. As such the work will impact the geomorphological features associated with this relict cliff line.

Options A & B generally follow the existing alignment of the N25 into Rosslare Europort and will not impact further on the geomorphology of the area.

7.4.10.11 Made Ground / Landfills

Made Ground is encountered on all scheme options as described in Section 7.4.10.5. The material is variable in nature and there may be low strength materials and voids within this that could lead to settlement of infrastructure.

There is the potential for Made Ground to contain contaminants present from the previous land use described in Section 7.4.10.6.

No recorded landfills were identified within the study area.

7.4.10.12 Construction materials

The use of materials required to build the Ballygillane Roundabout has not been considered since construction of the roundabout is common to all three scheme options and will have been completed prior to any works in respect of the options under consideration.

Option C requires the construction of an embankment to raise the carriageway level sufficiently to cross the existing railway line via an overbridge. Option C requires significant cutting to tie-in to the proposed internal Rosslare Europort roundabout. This cutting will be made up of Macamore Clay which is unlikely to be re-used for construction purposes, which will have to be disposed of from the site. Consequently, the general fill required for the embankments will have to be imported to site if the excavated Macamore Clay from the cutting cannot be re-used.

7.4.10.13 Construction stage impacts

No impact is anticipated to occur in respect of Options A & B since no excavation and storage of materials will be required for Option A and will be limited for Option B.

Option C will require the strip and temporary storage of topsoil which would potentially be affected by erosion caused by surface water run-off. The soil affected has been identified as being poorly drained and is classified as being of poor suitability for cultivated crops.

7.4.10.14 Assessment of impacts

An assessment of the impacts of each scheme option in respect to the aspects described in Section 7.4.10.5 to 7.4.10.13 has been made and is summarised in Table 7-50 to Table 7-52 adopted from Table 4.2 of the Guidelines as discussed in Section 7.4.10.3.

Table 7-50: Impact assessment Scheme Option A

Scheme Option A

Attribute	Attribute Importance	Impact	Impact Level
Agricultural Soils	Low	Agricultural Soils will not be impacted	Neutral
Geology (drift / solid)	Low	No new excavation or construction required	Neutral
Geohazards	Medium	No improvements will be made at Delap's Hill. Failures of the slope may require emergency works and closure or restriction of the road.	Moderate Negative
Geomorphology	Medium	No impact on geomorphology	Neutral
Made Ground / Landfills	Low	Made Ground associated with existing infrastructure may contain contaminants or exhibit low material strengths	Minor Negative
Construction Materials	Medium	No impact – no opportunity for material re-use	Neutral

Scheme Option A

Construction Stage Inputs	Low	No site won materials will be available from works	Neutral

Table 7-51: Impact Assessment Scheme Option B

Scheme Option B

Attribute	Attribute Importance	Impact	Impact Level
Agricultural Soils	Low	Shallow excavation required to provide carriageway widening over limited extents	Neutral
Geology (drift / solid)	Low	Minor excavation into Glacial Till required to widen route	Neutral
Geohazards	Medium	Improvements will be made at Delap's Hill to stabilise the N25 on this section of the route	Minor Positive
Geomorphology	Medium	Improvements at Delap's Hill where route crosses relict sea cliff will cause further minor degradation to the original geomorphology	Neutral
Made Ground / Landfills	Low	Made Ground associated with existing infrastructure may contain contaminants or exhibit low material strengths	Minor Negative
Construction Materials	Medium	No impact – no opportunity for material re-use	Neutral
Construction Stage Inputs	Low	No site won materials will be available from works	Neutral

Table 7-52: Impact Assessment Scheme Option C (C1 & C2)

Scheme Option C

Attribute	Attribute Importance	Impact	Impact Level
Agricultural Soils	Low	Excavation required across agricultural land of poor quality	Minor Negative
Geology (drift / solid)	Low	Excavation into Glacial Till to create cutting on approach to port entrance. Soft ploughed material may lead to settlement of embankment on agricultural land if not removed	Minor Negative
Geohazards	Medium	Possible reactivation of shear surfaces in cutting slopes which are within relict sea cliff. These can be managed through effective slope design.	Neutral
Geomorphology	Medium	Geomorphology of relict sea cliff will be altered by cutting excavation	Minor Negative
Made Ground / Landfills	Low	Limited Made Ground along route. Likely to be removed during construction	Minor Positive
Construction Materials	Medium	Unable to reuse cut material (Macamore Clay) to balance embankment fill. Macamore Clay to be disposed of from site and consequently, general fill required for the embankments will have to be imported to site.	Moderate Negative

Scheme Option C

Construction Stage Inputs	Low	Storage of excavated materials during construction may lead to erosion and run-off of material	Minor Negative

7.4.10.15 Conclusion and recommendations

Option A has identified a Moderately Negative impact which relate to the lack of improvement to be made to Delap's Hill where, if further slope failures or ongoing maintenance to the carriageway are required, disruption could be caused to traffic entering or leaving the port and to the rail infrastructure located at the toe of the slope.

Option B includes the remediation of Delap's Hill and realignment of the N25 and Option C is predominantly a new alignment that would remove instability at Delap's Hill as a risk to the N25.

Since neither Options B nor C have been assessed as having any Moderately Negative impacts Option A becomes the least preferred.

When comparing Option B with Option C it is clear that, due to the proposed works required to construct Option C, specifically a cutting through the relict sea cliff on the approach to the port, the impact on the Soils and Geology, Hydrology and Hydrogeology, will be significantly greater than that for Option B, where minimal construction activities and very limited land take is required.

However, assessment shows that the impact of Option C will, due to the nature of the Soils and Geology encountered, be a Minor Negative one. The agricultural land that will be affected is of poor quality and the route does not pass through any areas of economic geological or geological heritage significance.

It is anticipated that the material excavated from the cutting is unlikely to be re-used for construction purposes, which will have to be disposed of from the site. Consequently, the general fill required for the embankments on the northern and southern sides of the railway will have to be imported to site if the excavated cutting material (Macamore Clay) cannot be re-used.

It should be noted in these locations that the Glacial Till forming the agricultural land has been disturbed by ploughing over a considerable period and has been described as 'soft' to depths of between 0.6-0.7mBGL. Potentially this material may need to be removed or ground treatments applied to ensure the long-term stability of the embankment. No quantitative analysis of either of these elements has been undertaken and further ground investigation is likely to be required to do this.

The Soils and Geology appraisal for Scheme Options A, B and C is presented in Table 7-53.

Table 7-53: Soils and Geology Appraisal

Environmental

Criterion	Scheme Option	Quantitative Assessment	Qualitative Assessment	Score
Soils and Geology	Scheme Option A – 'Do-Minimum' Option	Cost to be input for ongoing maintenance of Delap's Hill including annual carriageway maintenance and more interventions every 15-20 years Estimate: 15 000€ every year plus 250 000€ every 15-20 years Or estimate construction cost for upgrading Delap's Hill to ensure slope failures do not occur that would impact on traffic flow / volume capacity of N25 1.0 to 1.5M €	The option will have minimal impact. No additional land take is required, and no major engineering works are to be undertaken. Agricultural Soils Neutral Geology (drift / solid) Neutral Geohazards Moderate Negative Geomorphology Neutral Made Ground / Landfills Minor Negative Construction Materials Neutral Construction Stage Inputs Neutral	3
	Scheme Option B – 'Do-Something' Management Option	Estimate construction cost for upgrading Delap's Hill to ensure slope failures do not occur that would impact on traffic flow / volume capacity of N25 1.0 to 1.5M €	The option will have minimal impact with the exception of the improvement required at Delap's Hill. Agricultural Soils Neutral Geology (drift / solid) Neutral Geohazards Minor Positive Geomorphology Neutral Made Ground / Landfills Minor Negative Construction Materials Neutral Construction Stage Inputs Neutral	5
	Scheme Option C1 – 'Do-Something' Development Option	Quantities for cut fill balance: Cutting 56938m^3 Embankment 46189m^3 Potential removal of soft ground below embankment footprint: Volume 1387m^3	The option will have minimal impact as the aspects impacted are considered to be of relatively low importance. Agricultural Soils Minor Negative Geology (drift / solid) Minor Negative Geohazards Neutral Geomorphology Minor Negative Made Ground / Landfills Minor Positive Construction Materials Moderate Negative Construction Stage Inputs Minor Negative	3
	Scheme Option C2 – 'Do-Something' Development Option	Quantities for cut fill balance: Cutting 84013m^3 Embankment 61847m^3 Potential removal of soft ground below embankment footprint: Volume 1858m^3	The option will have minimal impact as the aspects impacted are considered to be of relatively low importance. Agricultural Soils Minor Negative Geology (drift / solid) Minor Negative Geohazards Neutral Geomorphology Minor Negative Made Ground / Landfills Minor Positive Construction Materials Moderate Negative Construction Stage Inputs Minor Negative	3

7.4.11 Hydrology

7.4.11.1 Methodology

This Impact assessment has been carried out in general accordance with methodology presented in the National Roads Authority (NRA) Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes.

7.4.11.2 Desk Study/ field study

The assessment of each of the scheme options has been carried out using information gathered at Constraints Study Phase. Details of the information used for the purpose of this assessment are presented in Table 7-54 below.

Table 7-54: Sources of Data

Feature	Source
Bedrock geology	Geological Survey Ireland, 1:100 000 bedrock mapping (www.gsi.ie) Regional memoir
Subsoils (Quaternary deposits) Geohazards Economic Geology Aquifer type Aquifer vulnerability Source Protection Areas Wells and Sprigs Drinking Water Sources	Geological Survey of Ireland (www.gsi.ie)
Soils	Environmental Protection Agency (EPA), Mapping (http://gis.epa.ie) Teagasc – Agriculture and Food Development Agency (https://www.teagasc.ie/)
Historic Mapping Aerial Photography	Ordnance Survey Ireland (https://www.osi.ie/)

7.4.11.3 Impact Assessment Methodology

The assessment of likely impacts resulting from each scheme option has been carried out using the information obtained from desk study and field survey of the site. The aspects assessed generally follow those described in Section 2 of the NRA Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes. The impacts affecting hydrology have been identified and assigned an attribute rating in accordance with Table 4.2 of the same Guidelines.

The following aspects, as broadly outlined in Section 2 of the above Guidelines, have been assessed in respect of each scheme option:

Hydrology

- Climate Change
- Flooding
- Surface Water Quality

Owing to their alignments no scheme options were considered to impact on the following attributes:

- **Hydrology**; Resource Amenity Value

The assessment approach has been to count the number of Impact Levels under each of the headings given in Table 4.2 of the Guidelines and undertake a qualitative assessment of each scheme option to determine the preferred option in respect to its impact on Hydrology. Table 7-55 summarises below the impact levels given in Table 4.2 of the guidelines.

Table 7-55: Summary of impact level scoring methodology

Impact Level
Severe Negative
Major Negative
Moderate Negative
Minor Negative
Neutral
Minor Positive

Based on the impact assessment for each scheme option a summary table has been prepared for the scheme options in accordance with Table 7.1.3 of the Project Appraisal Guidelines for National Roads Unit 7.0 – Multi Criteria Analysis (MCA) (PE-PAG-02031, October 2016). This includes an impact score, in accordance with Section 2.4 of the MCA, based on the impact level determined for Hydrology.

7.4.11.4 Overview of hydrology

On the boundary of the study area a single water course has been identified, the Grange Big Stream. This is located on the western boundary of the site as shown on Figure 7.8 in Appendix C of this report. At its closest point comes within approximately 200m of the Option C alignment.

7.4.11.5 Climate change

This section of the report ‘Climate Change’ differs from section 7.4.1 ‘Climate’ in so far as this section ‘Climate change’ relates to how impacts of rainfall characteristics and rising sea levels may impact on drainage and coastal erosion of the scheme options, while section 7.4.1 ‘Climate’ relates to an assessment of greenhouse gas emissions by vehicles during the construction and operational phases for each scheme option.

Increased levels and intensity of rainfall events as a result of climate change will impact all scheme options.

Option A does not include for improvement to drainage systems and consequently increased levels of rainfall may exceed the capacity of the existing system and lead to localised flooding of carriageways and erosion of the slope supporting the carriageway at Delap’s Hill.

Options B and C will include works undertaken to the best possible standard and drainage would be designed to account for increased volumes of rainfall based on assessment of the impacts of climate change. Option C enters the port on low lying ground which may be subject to flooding from the sea as climate change progresses and sea levels rise.

In relation to coastal erosion, a desktop research has been undertaken in order to ascertain any risk to the proposed scheme options from coastal erosion over the design life of 120 years. The baseline conditions were established based on a literature review, previous studies carried out on the area and ground investigations. The Environmental Protection Agency (EPA) and Geological Survey of Ireland (GSI) quaternary geological databases and maps were also reviewed to determine the context of the study area in terms of soils and geology. Peer review papers were consulted and UKCP18 and EPA’s guidance on climate change were used to determine future sea level rise rates.

Rosslare Harbour is located in Rosslare Bay, in the extreme south east corner of Ireland, fronting the semi-enclosed Irish Sea. The bay is limited in the North by Raven Point and Wexford Harbour, and in the South by the Harbour. The coastline of Rosslare Bay has been subject of changes over the past 150 years, with an ongoing coastal erosion being a factor in these changes. The major development of Wexford Harbour at the end of 19th century has significantly influenced the sediment regime of this area and, together with the construction of a new jetty in 1978 at Rosslare Harbour, a sediment deficit was created in the bay, leading to the erosion problems observed.

West of Rosslare Harbour and adjacent to the proposed scheme option routes, is a section of coastline for the purposes of this report identified as “small bay”, Refer to Figure 7-8 below. This location has a noticeable erosion pattern although not as accelerated as at Rosslare Strand beach, due to the different geological composition of the site and its location between two local headlands. However, this “small bay” erosion could potentially threaten the proposed development and its retreat has been estimated by this high-level assessment.

Figure 7-8 Study Area

Source: Mott MacDonald, 2020 with imagery taken from Google Earth Pro, 2020

After a detailed literature review, it was concluded that although several studies existed that focused on the understanding of the erosion observed in Rosslare Bay none of them have focused specifically on the southern section of the Bay, which is the area of interest of this desk assessment. The historic erosion rates for the southern section of Rosslare Bay, including the "small bay" were estimated using OS historic maps from the GeoHive application. A review of historical sea level rise was also undertaken using the available published data. At this stage the future sea level rise was based on UKCP18 guidance.

The expected retreats of the “small bay”, over the next 120 years, have been estimated based a simple historical trend analysis. This technique is based upon extrapolating historical recession trends and assessing how this will increase with respect to increased sea level rise over the next 120 years. Typical, upper and lower estimates have been evaluated. From literature review and the high-level assessment of coastal retreat, it was estimated, that the small bay coastline could potentially retreat up to 150m over the next 120 years. This is the upper band estimate and includes the large number of assumptions of the study. The summary erosion predictions are shown below in Figure 7-9: Estimated retreat of the coastline for the Small Bay area.

Figure 7-9: Estimated retreat of the coastline for the Small Bay area

Source: Mott MacDonald, 2020

With the information available this analysis has indicated the retreat of the small bay is not anticipated to reach the proposed Scheme Option C during the lifespan of the asset (120 years). However, a more detailed study is highly recommended including further ground investigations in the area adjacent to the railway line, in order to verify the aforementioned prediction.

It is also recommended to develop an understanding of the potential evolution of the shape of the small bay. At this stage, this has not been undertaken but it would depend on a detailed study of the geology and coastal condition of this section of the coastline. Generally, it is suggested that monitoring of shoreline changes through the lifetime of the scheme is undertake. This will allow erosion scenario predictions to be reviewed and if after a more comprehensive review, there is thought to be a risk from erosion it would be possible to design cliff toe protection works locally to mitigate this risk.

It has been concluded in this assessment, that the retreat of the coastline in the area of the small marina is unlikely. From the historic analysis, the coast here has been stable over the several decades, and, in addition, is now protected by the marina breakwater

7.4.11.6 Flooding

None of the options are located on floodplains or close to watercourses and as such are unlikely to be affected by flooding. Option A makes no change to the existing drainage layout and discharges are not likely to impact on flooding.

Discharges relating the drainage of Options B & C would be designed to the best possible standard and attenuated to ensure that the discharge receptor would be sufficient to manage the volumes generated by the scheme without causing flooding.

7.4.11.7 Surface Water Quality

Option A does not include any improvements to the drainage system and therefore the risk of contaminants being discharged into surface water is higher than that of Options B & C which will incorporate drainage attenuation and separators that will reduce the risk of contaminants being discharged via surface water outfalls as a result of spills on the carriageway.

7.4.11.8 Assessment of impacts

An assessment of the impacts of each scheme option in respect to the aspects described in Section 7.4.11.5 to 7.4.11.7 has been made and is summarised in Table 7-56 to Table 7-58 adopted from Table 4.2 of the Guidelines as discussed in Section 7.4.11.3.

Table 7-56: Impact Assessment Scheme Option A

Scheme Option A

Attribute	Attribute Importance	Impact	Impact Level
Climate Change	High	Increased rainfall may lead to localised flooding of route as drainage is not being improved.	Moderate Negative
Flooding	High	No impact – route is not located on flood plain	Neutral
Surface Water Quality	Medium	Lack of improvement to drainage system may lead to lower surface water quality at outfalls	Minor Negative

Table 7-57: Impact Assessment Scheme Option B

Scheme Option B

Attribute	Attribute Importance	Impact	Impact Level
Climate Change	High	Improvement of drainage infrastructure will reduce risk of carriageway flooding and run-off into local properties	Minor Positive
Flooding	High	No impact – route is not located on flood plain	Neutral
Surface Water Quality	Medium	Improvement to drainage systems may lead to improved surface water quality at outfalls	Minor Positive

Table 7-58: Impact Assessment Scheme Option C (C1 & C2)

Scheme Option C

Attribute	Attribute Importance	Impact	Impact Level
Climate Change	High	Drainage will be built to current standards and account for climate change. In relation to coastal erosion, with the information available it has indicated the retreat of the small bay is not anticipated to reach the proposed development	Minor Positive

Scheme Option C			
		options during the lifespan of the asset (120 years).	
Flooding	High	No impact – route is not located on flood plain	Neutral
Surface Water Quality	Medium	Drainage systems constructed to current standards will ensure quality of discharge to surface water. Improvement over current system	Minor Positive

7.4.11.9 Conclusion and recommendations

It is considered that climate change is likely to lead to longer periods of intense rainfall. Since no changes are proposed to the existing drainage of the N25 over which Option A is aligned, it is possible that periods of localised flooding may occur if the current capacity of the drainage system is exceeded. Option B includes the remediation of Delap's Hill and realignment of the N25 which would include provision of drainage designed with capacity to take account of future climate change. Option C is predominantly a new alignment that would remove instability at Delap's Hill as a risk to the N25. For both Option B and C, it is considered that drainage design will control the risk of contaminants from carriageway run-off or spillage reaching either surface water courses. The Hydrology appraisal for Scheme Options A, B and C is presented in Table 7-59.

From literature review and the high-level assessment of coastal retreat, it is estimated from the information available that the retreat of the small bay is not anticipated to reach the proposed development Scheme Option C during the lifespan of the asset (120 years). Suggest monitoring of shoreline changes through the lifetime of the scheme to review erosion scenario predictions and if there is still thought to be a risk from erosion it would be possible to design cliff toe protection works locally to mitigate this risk.

Table 7-59: Hydrology Appraisal

Environmental				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Hydrology	Scheme Option A – 'Do-Minimum' Option	n/a (Note 1)	Lack of improvement in drainage system may make route more susceptible to flooding due to climate change and this may in turn impact on surface water quality. Climate Change: Moderate Negative Flooding: Neutral Surface Water Quality: Minor Negative	2
	Scheme Option B – 'Do-Something' Management Option	n/a (Note 1)	Improvement in drainage system will reduce risk of flooding of carriageway and 3rd party property as a consequence of climate change. The risk of surface water contamination will be reduced by the drainage improvements. Climate Change: Minor Positive Flooding: Neutral Surface Water Quality: Minor Positive	5
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	n/a (Note 1)	Improvement in drainage system in comparison to Option A will reduce risk of flooding of carriageway and 3rd party property. The risk of surface water contamination will be reduced by the use of standard drainage design.	5

Environmental

Criterion	Scheme Option	Quantitative Assessment	Qualitative Assessment		Score
			Climate Change	Minor Positive	
			Flooding	Neutral	
			Surface Water Quality	Minor Positive	

Note 1 In the case of some elements within each criterion the inclusion of a quantitative statement is not possible as only a qualitative assessment or examination is required, hence there are no quantitative amounts or values which can be included.

7.4.12 Hydrogeology

7.4.12.1 Methodology

This Impact assessment has been carried out in general accordance with methodology presented in the National Roads Authority (NRA) Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes.

7.4.12.2 Desk Study/ field study

The assessment of each of the scheme options has been carried out using information gathered at Constraints Study Phase. Details of the information used for the purpose of this assessment are presented in Table 7-60 below.

Table 7-60: Sources of Data

Feature	Source
Bedrock geology	Geological Survey Ireland, 1:100 000 bedrock mapping (www.gsi.ie) Regional memoir
Subsoils (Quaternary deposits) Geohazards Economic Geology Aquifer type Aquifer vulnerability Source Protection Areas Wells and Sprigs Drinking Water Sources	Geological Survey of Ireland (www.gsi.ie)
Soils	Environmental Protection Agency (EPA), Mapping (http://gis.epa.ie) Teagasc – Agriculture and Food Development Agency (https://www.teagasc.ie/)
Historic Mapping Aerial Photography	Ordnance Survey Ireland (https://www.osi.ie/)

7.4.12.3 Impact Assessment Methodology

The assessment of likely impacts resulting from each scheme option has been carried out using the information obtained from desk study and field survey of the site. The aspects assessed generally follow those described in Section 2 of the NRA Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes. The impacts affecting hydrogeology have been identified and assigned an attribute rating in accordance with Table 4.2 of the same Guidelines.

The following aspects, as broadly outlined in Section 2 of the above Guidelines, have been assessed in respect of each scheme option:

Hydrogeology

- Aquifers
- Groundwater Quality

Owing to their alignments no scheme options were considered to impact on the following attributes:

- **Hydrogeology**; Groundwater Supply

The assessment approach has been to count the number of Impact Levels under each of the headings given in Table 4.2 of the Guidelines and undertake a qualitative assessment of each Scheme Option to determine the preferred option in respect to its impact on Hydrogeology. Table 7-61 summarises below the impact levels given in Table 4.2 of the guidelines.

Table 7-61: Summary of impact level scoring methodology

Impact Level
Severe Negative
Major Negative
Moderate Negative
Minor Negative
Neutral
Minor Positive

Based on the impact assessment for each scheme option a summary table has been prepared for the scheme options in accordance with Table 7.1.3 of the Project Appraisal Guidelines for National Roads Unit 7.0 – Multi Criteria Analysis (MCA) (PE-PAG-02031, October 2016). This includes an impact score, in accordance with Section 2.4 of the MCA, based on the impact level determined for Hydrogeology.

7.4.12.4 Overview of hydrogeology

Environmental Protection Agency mapping of the study area shows that it is situated over a bedrock aquifer which is generally unproductive except for local zones. No aquifers within the superficial deposits are shown.

7.4.12.5 Aquifers

All options are underlain by superficial deposits of Glacial Till and bedrock geology of the Greenore Point Group. Aquifer mapping presented in Appendix A Figure 3.2.4 shows the study area to be generally underlain by a poor aquifer which is unproductive except for local zones and associated with the bedrock.

The superficial deposits overlying the bedrock are of low permeability and this reduces the rate at which surface water can infiltrate to and recharge the aquifer. Ground investigation undertaken in respect of Option C shows the superficial deposits to vary in thickness from approximately 6m to greater than 15m becoming deeper in the vicinity of the cutting on the approach the port entrance. During the ground investigation water strikes and seepages within the Glacial Till were recorded. These were associated with lenses of granular material within the predominantly cohesive material and may form localised perched aquifers. Where these are intercepted during excavation water will drain into the works.

Options A & B will have no impact on the aquifer, however the cutting that is to be constructed in respect to Option C may be deep enough to reach the underlying bedrock giving the possibility that surface water run-off or drainage outfalls may not be attenuated by the superficial deposits creating a potential pathway for contaminants to the aquifer. The impact of this on the aquifer can be managed by using appropriate drainage control.

7.4.12.6 Groundwater Quality

Groundwater quality can be affected by an increased quantity of contaminants reaching the groundwater from untreated surface water run-off, accidental spillage and road drainage.

No changes to the existing drainage system will be undertaken with Option A however both Option B and C will be built to the best possible standard which will include control of surface water capture and outfall with the inclusion of separators to prevent contaminants being discharged and subsequently reaching the aquifer.

The GSI data shows the bedrock aquifer to generally be of moderate vulnerability to contamination with the exception of an area of extreme or high vulnerability associated with the area of reclaimed land at the current access to the port. Options A and B will terminate in this location. Appendix C Figure 7.7 shows the groundwater vulnerability with respect to the scheme options.

7.4.12.7 Assessment of impacts

An assessment of the impacts of each scheme option in respect to the aspects described in Sections 7.4.12.5 to 7.4.12.6 has been made and is summarised in Table 7-62 to Table 7-64 adopted from Table 4.2 of the Guidelines as discussed in Section 7.4.12.3

Table 7-62: Impact Assessment Scheme Option A

Scheme Option A

Attribute	Attribute Importance	Impact	Impact Level
Aquifers	Low	No impact on aquifer – no excavation being undertaken	Neutral
Groundwater Quality	Low	Lack of improvements to drainage in comparison to other route options leaves a risk that contaminants from run-off can reach groundwater	Minor Negative

Table 7-63: Impact Assessment Scheme Option B

Scheme Option B

Attribute	Attribute Importance	Impact	Impact Level
Aquifers	Low	No impact on aquifer – no excavation being undertaken	Neutral
Groundwater Quality	Low	Improvements to drainage will allow control of contaminants from run-off and prevent them reaching groundwater	Minor Positive

Table 7-64: Impact Assessment Scheme Option C (C1 & C2)

Scheme Option C

Attribute	Attribute Importance	Impact	Impact Level
Aquifers	Low	Cutting may impact on aquifer requiring good management of discharges to ensure aquifer is not contaminated	Minor Negative
Groundwater Quality	Low	Design of drainage system to correct standard will maintain groundwater quality	Neutral

7.4.12.8 Conclusion and recommendations

Options A & B will have no impact on the aquifer as no excavation is being undertaken, however the cutting that is to be constructed in respect to Option C may be deep enough to the impact the aquifer but this can be managed by using appropriate drainage control to ensure aquifer is not

contaminated. No changes to the existing drainage system will be undertaken with Option A however both Option B and C will be built to the best possible standard with drainage systems to prevent contaminants from run-off and prevent them from reaching the groundwater thus maintaining the groundwater quality. The Hydrogeology appraisal for Scheme Options A, B and C is presented in Table 7-65.

Table 7-65: Hydrogeology Appraisal

Environmental				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Hydrogeology	Scheme Option A – 'Do-Minimum' Option	n/a (Note 1)	There will no impact on aquifers however lack of improvement to drainage leaves risk that contaminants from run-off can reach ground water. Aquifers: Neutral Groundwater Quality: Minor Negative	3
	Scheme Option B – 'Do-Something' Management Option	n/a (Note 1)	There will no impact on aquifers, improvement to drainage reduces risk that contaminants from run-off can reach ground water. Aquifers: Neutral Groundwater Quality: Minor Positive	4
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	n/a (Note 1)	Potential to impact aquifer due to excavation will be mitigated by use of standard drainage details. The same details will prevent contamination of groundwater. Aquifers: Minor Negative Groundwater Quality: Neutral	3

Note 1 In the case of some elements within each criterion the inclusion of a quantitative statement is not possible as only a qualitative assessment or examination is required, hence there are no quantitative amounts or values which can be included.

7.4.13 Combined Environmental Appraisal Matrix

An analysis was undertaken comparing the preferences for each scheme option identified under each environmental heading. The results of all the environmental assessments were considered in determining a Preferred Scheme Option.

Table 7-66 Combined Environmental Appraisal Matrix below, outlines the preferences of each scheme option under each environmental heading

Table 7-66: Combined Environmental Appraisal

Criterion	Sub Criteria	Scheme Option A	Scheme Option B	Scheme Option C	
				Scheme Option C1	Scheme Option C2
Environmental	Air Quality & Climate	4	3	4	4
	Noise	4	4	5	5
	Waste	4	3	2	2
	Biodiversity (Flora and Fauna)	4	4	3	3
	Agriculture	4	4	3	3
	Non-Agricultural Properties	4	3	5	5
	Architectural Heritage	4	3	4	4
	Archaeological & Cultural Heritage	4	4	3	3
	Landscape & Visual	4	3	2	2
	Soils and Geology	3	5	3	3
	Hydrology	2	5	5	5
	Hydrogeology	3	4	3	3
Total Environmental Score		44	45	42	42

7.5 Accessibility and Social Inclusion Appraisal

7.5.1 Introduction

The Department of Transport 'Guidelines on a Common Appraisal Framework for Transport Projects and Programmes' 2016, details government policy for the appraisal of transport projects. Government policy has the objective of reducing and ideally eliminating poverty and social exclusion particularly as it affects vulnerable groups. The Updated National Action Plan for Social Inclusion 2015-2017 identifies a wide range of targeted actions and interventions to achieve the overall objective of reducing consistent poverty by emphasis on social recovery and improved living and working standards of people living in disadvantaged areas and vulnerable groups. The Plan implemented an active inclusion strategy which is intended to tackle various challenges including poverty, social exclusion, in-work poverty and long-term unemployment.

Accessibility and Social Inclusion Appraisal has been assessed under the following sub-headings in accordance with PAG Unit 7 (PE-PAG-02031):

- Deprived Geographical Areas
- Vulnerable Groups

7.5.2 Deprived Geographical Areas

The Department of Transport 'Guidelines on a Common Appraisal Framework for Transport Projects and Programmes' specify that the appraisal of Accessibility and Social Inclusion should be based on the RAPID and CLÁR programmes.

The RAPID (Revitalising Areas by Planning, Investment and Development) Programme, was a Government initiative, which targeted 51 of the most disadvantaged areas in the country. The Programme aimed to ensure that priority attention was given to the 51 designated areas by focusing available resources. Another scheme called the Communities Facilities Scheme (CFS) was introduced in 2017 following a commitment in the Programme for a Partnership Government 2016 to develop a new Community Development Scheme. It was targeted at disadvantaged urban and rural areas and aimed to fund projects that seek to enhance communities, address disadvantage and improve social cohesion at a local level.

It should be noted however, that the Department of Rural and Community Development decided to carry out a review of RAPID and CFS to determine if improvements should be made prior to a new launch in 2018 and to improve the efficiency and effectiveness of the schemes. Following the review, the Department decided that the schemes be amalgamated under a new name – Community Enhancement Programme. The Community Enhancement Programme (CEP) now replaces and builds on the Communities Facilities Scheme and the RAPID programme. Combining the schemes makes for a more flexible, streamlined and targeted approach to providing funding to those communities most in need.

The Community Enhancement Programme (CEP) provides funding to community groups across Ireland to enhance facilities in disadvantaged areas. The CEP is funded by the Department of Rural and Community Development and administered by the Local Community Development Committees (LCDCs) in each Local Authority area. The Department provides funding to each Local Authority (LA) area and the LCDCs then administer this funding locally to ensure funding is targeted appropriately towards addressing disadvantage in the areas that need it most. In 2018, 85 local authority groups were awarded funding from the CEP in County Wexford, one of these was in the Rosslare Harbour area where the Rosslare Harbour/Kilrane Environment Group was awarded funding for a Sculpture. In 2019, 116 local authority groups were awarded funding from the CEP in County Wexford, three of these were in the vicinity of the Rosslare Harbour area. 2019

funding was awarded for public realm works at Kilrane, installation of a charge point in public car park in Kilrane, and for the Kilrane/Rosslare Harbour Men's Shed.

The CLÁR programme (Ceantair Laga Árd-Riachtanais) is a targeted capital investment programme for rural areas which have experienced significant levels of depopulation. The programme was originally launched in October 2001 but was closed for applications in 2010. The scheme was re-opened in 2016 to support the development of remote rural areas through small-scale capital projects involving collaboration between Local Authorities and communities. There are no areas in County Wexford included under the CLÁR programme.

The 2016 Pobal HP Deprivation Index assesses the level of overall deprivation across the country using identical measurements and scales using data from the 2016 Census of Population. This index states that in 2016, Wexford was the 4th most disadvantaged local authority in the country in terms of deprivation (based on 34 authorities) (Wexford County Council, 2018). Rates of disadvantage vary across Wexford but in general, the county does not have many areas in the extremes of either disadvantage of affluence. In 2016, the Rosslare Harbour vicinity had a deprivation score mixed between Disadvantaged, Marginally below Average and Marginally above Average respectively.

Improvement of access to Rosslare Europort through the proposed Scheme Options B and C will benefit the geographical area in the vicinity of Rosslare Harbour and Rosslare Europort which will benefit its' surrounding areas and communities. Improvements to the road network will therefore provide improved access to employment, education, essential services and amenities in and around the geographical area of Rosslare Harbour. The Deprived Geographical Areas appraisal for Scheme Options A, B and C is presented in Table 7-67.

Table 7-67: Deprived Geographical Areas Appraisal

Accessibility and Social Inclusion				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Deprived Geographical Areas	Scheme Option A – 'Do-Minimum' Option	n/a (Note 1)	Option A does not provide any improved accessibility to the current geographical areas in and around Rosslare Harbour. The scheme option consists of maintaining the existing road network.	4
	Scheme Option B – 'Do-Something' Management Option	n/a (Note 1)	Option B improves accessibility to the area of Rosslare Harbour through the upgrading of the existing N25 route by the addition of pedestrian facilities & crossings and improvements to the current road layout to the Port (including the provision of a parallel service road adjacent to the N25 road). Option B will therefore provide improved access to employment, education, essential services and amenities in and around the geographical area of Rosslare Harbour.	5
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	n/a (Note 1)	Option C will improve access to Rosslare Europort and will improve the local environment in and around Rosslare Harbour particularly for residents, by removing port traffic from the village. Option C will therefore provide improved access to employment, education, essential services and amenities in and around the geographical area of Rosslare Harbour.	6

Note 1 In the case of some elements within each criterion the inclusion of a quantitative statement is not possible as only a qualitative assessment or examination is required, hence there are no quantitative amounts or values which can be included.

7.5.3 Vulnerable Groups

Improvement of access to Rosslare Europort through the proposed Scheme Options B and C will benefit vulnerable groups in the vicinity of Rosslare Harbour and Rosslare Europort. Improved infrastructure and safety measures for pedestrian and cycling facilities may increase active travel and this will generate benefits in terms of local economies, social inclusion, public health and a cleaner community by the reduction of vehicle greenhouse gas emissions. Option B will have a positive benefit to vulnerable road users including people with no access to vehicles through the provision of designated pedestrian & cycle crossings and facilities which will provide better access to employment and/or infrastructure in the area. Option C will also have positive benefit to vulnerable road users including people with no access to vehicles by the removal of Port traffic form the Rosslare Harbour village which will provide safer access to employment and/or infrastructure in the area for vulnerable groups. Both Option B and Option C will provide improved access to the public transport (rail and bus) infrastructure and Rosslare Europort in the vicinity of Rosslare Harbour for vulnerable groups through the upgrades to the existing N25 road layout or the provision of a new access road to the port which will provide opportunity for the provision of enhanced facilities for pedestrians and cyclists. The Vulnerable Groups appraisal for Scheme Options A, B and C is presented in Table 7-68.

Table 7-68: Vulnerable Groups Appraisal

Accessibility and Social Inclusion				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Vulnerable Groups	Scheme Option A – 'Do-Minimum' Option	n/a (Note 1)	Option A does not provide any improved accessibility for vulnerable groups in and around Rosslare Harbour. The scheme option consists of maintaining the existing road network.	4
	Scheme Option B – 'Do-Something' Management Option	n/a (Note 1)	Option B improves accessibility to the area of Rosslare Harbour for vulnerable groups through the upgrading of the existing N25 route by the addition of pedestrian facilities & crossings and improvements to the current road layout to the Port (including the provision of a parallel service road adjacent to the N25 road). Option B therefore has a positive benefit to vulnerable road users including people with no access to vehicles from the provision of designated pedestrian and cycle crossings and facilities which will provide better access to employment and/or infrastructure in the area. Option B also provides improved access to the public transport (rail and bus) infrastructure in the vicinity of Rosslare Harbour for vulnerable groups.	5
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	n/a (Note 1)	Option C will improve access to Rosslare Europort and will improve the local environment in and around Rosslare Harbour particularly for pedestrians and cyclists, by removing port traffic from the village. The removal of Port traffic form the Rosslare Harbour village therefore has a positive benefit to vulnerable road users including people with no access to vehicles which will provide better access to employment and/or infrastructure in the area. Option C also provides improved access to the public transport (rail and bus) infrastructure in the vicinity of Rosslare Harbour for vulnerable groups through the provision of a new access route to the Rosslare Europort which will provide opportunity for the provision of	6

Accessibility and Social Inclusion				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
			enhanced facilities for pedestrians and cyclists	

Note 1 In the case of some elements within each criterion the inclusion of a quantitative statement is not possible as only a qualitative assessment or examination is required, hence there are no quantitative amounts or values which can be included.

7.5.4 Combined Accessibility and Social Inclusion Appraisal Matrix

An analysis was undertaken comparing the preferences for each scheme option identified under each accessibility and social inclusion heading. The results of all the accessibility and social inclusion assessments were considered in determining a Preferred Scheme Option.

Table 7-69 Combined Accessibility and Social Inclusion Appraisal Matrix below, outlines the preferences of each scheme option under each accessibility and social inclusion heading.

Table 7-69: Combined Accessibility and Social Inclusion Appraisal

Criterion	Sub Criteria	Scheme Option A	Scheme Option B	Scheme Option C (C1 & C2)
Accessibility and Social Inclusion	Deprived Geographical Areas	4	5	6
	Vulnerable Groups	4	5	6
Total Accessibility and Social Inclusion Score		8	10	12

7.6 Integration

The integration appraisal of scheme options aims to ensure that planning for transport infrastructure takes account of Government policy and infrastructure investment guidelines with respect to the following;

- Transport Integration
- Land Use Integration
- Geographical Integration
- Other Government Policy: Regional Balance

7.6.1 Transport Integration

The transport integration of scheme options is appraised with respect to the existing transport network and improving opportunities for interchange between transport modes. The following aspects are considered as part of the appraisal;

- **Connectivity of the strategic network:** It is important that proposed investment on the National Road network is strategic in the sense that it creates a strong link to the existing network and adds value to it. In this regard, schemes which improve connectivity of the National Road network or satisfy an identified gap in the network are ranked positively. Similarly, those projects which little or no connectivity to the existing network are negatively ranked;
- **Connectivity between transport modes:** Improving integration between transport modes and the delivery of more seamless transport connectivity is an important Government objective. Road projects potentially support this objective by improving integration between the road network and other modes. Through the appraisal process, projects which present new opportunities for public transport nodes or corridors are positively ranked. Similarly, projects which could result in isolation of public transport services or infrastructure are negatively ranked;
- **Support for sustainable transport modes:** Planning for road network infrastructure needs to incorporate the needs of non-mechanised modes such as walking and cycling. Projects which improve the connectivity of existing sustainable transport networks are highly ranked while the possibility of a scheme hindering the development of pedestrian and cycling networks is also taken into account;
- **Access to other transport infrastructure such as ports and airports:** Access to international ports and airports is of national economic importance and is reflected in the appraisal of major road schemes. This is particularly applicable to the N25 Rosslare Europort Access Road scheme as it aims to improve accessibility and connectivity to Rosslare Europort which is of national economic importance. The new access also aims to secure the future sustainability of the Port.

The Transport Integration appraisal for Scheme Options A, B and C is presented in Table 7-70.

Table 7-70: Transport Integration Appraisal

Integration				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Transport Integration	Scheme Option A – 'Do-Minimum' Option	n/a (Note 1)	No investment made in the existing road network for this option, therefore there is no value added for connectivity to the strategic road network or between transport modes. It is noted that Option A can integrate with all scheme options currently under	4

Integration

Criterion	Scheme Option	Quantitative Assessment	Qualitative Assessment	Score
			consideration for the separate N11/N25 Oilgate to Rosslare Harbour project. The full integration of these separate projects is critical to achieve the most efficient access to Rosslare Europort, however as the option selection process for N11/N25 project has not concluded no assumptions have been made on the outcome of the process. No investment in the existing network does not improve sustainable transport modes or improve access to Rosslare Europort. However, Option A is compatible with the Rosslare Europort Phase 1 Master Plan which received planning approval in August 2020 and proposes a new layout for Port road infrastructure and customs/check-in facilities.	
	Scheme Option B – 'Do-Something' Management Option	n/a (Note 1)	This option provides a parallel link road between the Ballygillane Roundabout and St Mary's Terrace with improved local road junctions which will add value to both the existing N25 route and accessing Rosslare Europort. It is noted that Option B can integrate with all scheme options currently under consideration for the separate N11/N25 Oilgate to Rosslare Harbour project. The full integration of these separate projects is critical to achieve the most efficient access to Rosslare Europort, however as the option selection process for N11/N25 project has not concluded no assumptions have been made on the outcome of the process. Connectivity between transport modes is similar to the existing network. This option provides support for sustainable transport modes through improved pedestrian/cycleway infrastructure from Ballygillane Roundabout to Rosslare Europort through Rosslare Village. Option B is compatible with the Rosslare Europort Phase 1 Master Plan which received planning approval in August 2020 and proposes a new layout for Port road infrastructure and customs/check-in facilities.	5
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	n/a (Note 1)	This option provides a new route from the Ballygillane Roundabout which utilises the existing Ballygerry Link Road and connects directly to the proposed Western Roundabout within Rosslare Europort. This new route creates a strong link within the existing road network and adds value to the N25. It is noted that Option C can integrate with all scheme options currently under consideration for the separate N11/N25 Oilgate to Rosslare Harbour project and combined with the offline scheme options for the N11/N25 project, could potentially provide the most efficient access to the Port. The full integration of these separate projects is critical to achieve the most efficient access to Rosslare Europort, however as the option selection process for N11/N25 project has	7

Integration				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
			not concluded no assumptions have been made on the outcome of the process. Connectivity between transport modes is improved as Option C provides the most efficient connection (compared with Option A and Option B) with the Rosslare Europort Phase 1 Master Plan which received planning approval in August 2020 and proposes a new layout for Port road infrastructure and customs/check-in facilities. Furthermore, it worth noting that Option C incorporates dedicated pedestrian and cycle facilities that will fully integrate with the proposed corridor for the Waterford to Rosslare Harbour Greenway. This option provides support for sustainable transport modes through improved pedestrian/cycleway infrastructure from Ballygillane Roundabout to Rosslare Europort through dedicated online and offline pedestrian/cycleway network which provides connection via Churchtown Road to the proposed Waterford to Rosslare Harbour Greenway.	

Note 1 In the case of some elements within each criterion the inclusion of a quantitative statement is not possible as only a qualitative assessment or examination is required, hence there are no quantitative amounts or values which can be included.

7.6.2 Land Use Integration

Compatibility between adopted land use objectives and the scheme options are appraised under Land Use Integration. The impacts considered as part of the appraisal are;

- Support for Local Development Plan
- Strategic connectivity for long distance trips
- Mitigate risks of urban sprawl

The Land Use Integration appraisal for Scheme Options A, B and C is presented in Table 7-71.

Table 7-71: Land Use Integration Appraisal

Integration				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Land Use Integration	Scheme Option A – 'Do-Minimum' Option	n/a (Note 1)	Objective T11 of the Wexford County Development Plan 2013-2019 states that it is an objective of the Council: *'To support and facilitate the development of enhanced transport infrastructure at Rosslare Europort'.* Section 8.6.1 of the Development Plan states that the National Spatial Strategy recognises the N25 as a *'Strategic Linking Corridor'* and acknowledges the Council's belief that the *'enhancement of these routes is of great importance to the economic well-being of the Country as a whole and in ensuring ease of access to and from Rosslare Europort.'* No upgrade to the existing network is proposed for this option, therefore the	1

Integration

Criterion	Scheme Option	Quantitative Assessment	Qualitative Assessment	Score
			objectives of the Wexford County Development Plan 2013-2019 are not met with respect to Land Use Integration.	
	Scheme Option B – 'Do-Something' Management Option	n/a (Note 1)	This option provides for an upgrade to the existing N25 route which includes a parallel link road between the Ballygillane Roundabout and St Mary's Terrace with improved local road junctions. This will add capacity to the existing route and improve the Rosslare Europort access road, thereby meeting Objective T11 of the Wexford County Development Plan 2013-2019 Development Plan which is *'To support and facilitate the development of enhanced transport infrastructure at Rosslare Europort'.* Despite the inclusion of a parallel link road, it is expected that the presence of existing development and local accesses along the proposed route through Rosslare village will result in a higher proportion of local traffic and consequently reduce the capacity for regional and national traffic. This may have a negative effect on the strategic connectivity for long trips and affect journey times to Rosslare Europort.	5
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	n/a (Note 1)	This option provides a new route from the Ballygillane Roundabout which utilises the existing Ballygerry Link Road and connects directly to the proposed Western Roundabout within Rosslare Europort. This meets Objective T11 of the Wexford County Development Plan 2013-2019 Development Plan which is *'To support and facilitate the development of enhanced transport infrastructure at Rosslare Europort'.* Section 8.6.1 of the Development Plan states that the National Spatial Strategy recognises the N25 as a *'Strategic Linking Corridor'* and acknowledges the Council's belief that *the 'enhancement of these routes is of great importance to the economic well-being of the Country as a whole and in ensuring ease of access to and from Rosslare Europort.'* The proposed route option will separate national and regional traffic from local traffic and thereby respond to the needs of strategic long-distance trips including Port generated freight traffic that is of critical strategic importance to the Irish economy. The route also provides the best option to link with the preferred route corridor for N25/N11 Oilgate to Rosslare Harbour Road Scheme which is included in the Wexford County Development Plan (Map 9) and meets Objective T15, which is '*to support the development of the following national roads schemes…N25/N11 Oilgate to Rosslare Harbour*'.	7

Note 1 In the case of some elements within each criterion the inclusion of a quantitative statement is not possible as only a qualitative assessment or examination is required, hence there are no quantitative amounts or values which can be included.

7.6.3 Geographical Integration

The impact of the scheme options on national and international connectivity is appraised in the context of the National Planning Framework (NPF) published in February 2018. The appraisal considers integration between regions/regional centres in Ireland and within the European Union through the Trans-European Transport Network. The Geographical Integration appraisal for Scheme Options A, B and C is presented in Table 7-72.

Table 7-72: Geographical Integration Appraisal

Integration				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Geographical Integration	Scheme Option A – 'Do-Minimum' Option	n/a (Note 1)	No upgrade to the existing network proposed for this option, therefore the objectives of the National Planning Framework (NPF) are not met with respect to national and international connectivity as part of the appraisal for Geographical Integration.	4
	Scheme Option B – 'Do-Something' Management Option	n/a (Note 1)	The NPF – Project Ireland 2040 sets out two National Strategic Outcomes (NSOs) directly relate to the proposed road development; • Enhanced Regional Accessibility (NSO 2) • High Quality International Connectivity (NSO 6) Under 'Enhanced Regional Accessibility' the NPF provides the following national strategic outcomes for inter-urban roads; • Maintaining the strategic capacity and safety of the national road network including planning for future capacity enhancements; • Improving average journey time, targeting an average inter-urban speed of 90km/h. In the context of international connectivity, the proximity of Rosslare Europort to mainland Europe is identified as an opportunity to leverage regional growth, and its proximity to EU trading partners is identified as important in Ireland's response to Brexit. This option directly supports the delivery of the NPF strategic outcomes by improving accessibility and connectivity to Rosslare Europort and also by securing the future strategic capacity of the port and its connection with the national road network through the removal of existing capacity constraints on the current access route.	6
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	n/a (Note 1)	The NPF – Project Ireland 2040 sets out two National Strategic Outcomes (NSOs) directly relate to the proposed road development; • Enhanced Regional Accessibility (NSO 2) • High Quality International Connectivity (NSO 6) Under 'Enhanced Regional Accessibility' the NPF provides the following national strategic outcomes for inter-urban roads; • Maintaining the strategic capacity and safety of the national road network including planning for future capacity enhancements; • Improving average journey time, targeting an average inter-urban speed of 90km/h.	7

Integration				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
			In the context of international connectivity, the proximity of Rosslare Europort to mainland Europe is identified as an opportunity to leverage regional growth, and its proximity to EU trading partners is identified as important in Ireland's response to Brexit. This option directly supports the delivery of the NPF strategic outcomes by improving accessibility and connectivity to Rosslare Europort and also by securing the future strategic capacity of the port and its connection with the national road network through the removal of existing capacity constraints on the current access route.	

Note 1 In the case of some elements within each criterion the inclusion of a quantitative statement is not possible as only a qualitative assessment or examination is required, hence there are no quantitative amounts or values which can be included.

7.6.4 Other Government Policy Integration: Regional Balance

The impact of the scheme options promoting regional balance is appraised in the context of the National Planning Framework (NPF) published in February 2018. The appraisal considers the extent that regional balance is promoted by supporting both underutilised and rapidly developing areas in-tandem. The Other Government Policy Integration: Regional Balance appraisal for Scheme Options A, B and C is presented in Table 7-73.

Table 7-73: Other Government Integration Appraisal

Integration				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Other Government Policy Integration	Scheme Option A – 'Do-Minimum' Option	n/a (Note 1)	No upgrade to the existing network proposed for this option, therefore the objectives of the National Planning Framework (NPF) are not met with respect to regional balance.	4
	Scheme Option B – 'Do-Something' Management Option	n/a (Note 1)	Transport investment on routes which improve access to international ports are crucial to regional balance. The National Ports Policy 2013 categorises Rosslare Harbour as a Tier 2 Port of National Significance. It was will also play an important role in Ireland's response to Brexit. In 2011, 12,057 vessels carrying 45 million tonnes called at 19 Irish ports. Figures show that Rosslare Europort facilitated 1791 of these vessel calls which made it Irelands busiest port outside of Dublin in 2011. Furthermore, Rosslare Europort is projecting a 20% increase in port traffic over the five-year period 2020-2025. Investment in Option B will improve access to Rosslare Europort which will promote regional balance in line with Government policy.	6
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	n/a (Note 1)	Transport investment on routes which improve access to international ports are crucial to regional balance. The National Ports Policy 2013 categorises Rosslare Harbour as a Tier 2 Port of National Significance. It was will also play an	7

Integration				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
			important role in Ireland's response to Brexit. In 2011, 12,057 vessels carrying 45 million tonnes called at 19 Irish ports. Figures show that Rosslare Europort facilitated 1791 of these vessel calls which made it Irelands busiest port outside of Dublin in 2011. Furthermore, Rosslare Europort is projecting a 20% increase in port traffic over the five-year period 2020-2025. Investment in Option C will improve access to Rosslare Europort which will promote regional balance in line with Government policy.	

Note 1 In the case of some elements within each criterion the inclusion of a quantitative statement is not possible as only a qualitative assessment or examination is required, hence there are no quantitative amounts or values which can be included.

7.6.5 Combined Integration Appraisal Matrix

An analysis was undertaken comparing the preferences for each scheme option identified under each integration heading. The results of all the integration assessments were considered in determining a Preferred Scheme Option.

Table 7-74 Combined Integration Appraisal Matrix below, outlines the preferences of each scheme option under each integration heading.

Table 7-74: Combined Integration Appraisal

Criterion	Sub Criteria	Scheme Option A	Scheme Option B	Scheme Option C (C1 & C2)
Integration	Transport Integration	4	5	7
	Land Use Integration	1	5	7
	Geographical Integration	4	6	7
	Other Government Policy Integration	4	6	7
Total Integration Score		13	22	28

7.7 Physical Activity

This criterion examines the potential impacts of scheme options on active travel (cycling and walking) and potential health benefits that may arise from increased levels of physical activity. Such benefits potentially arise where scheme options provide new cycling/pedestrian facilities or enhance existing facilities. In addition to the direct health benefits, increases in physical activity have been shown to have a beneficial effect on work absenteeism and economic productivity.

Improvements that further separate motorised traffic on the national primary route from the local road network utilised by walkers and cyclists, which may encourage increased levels of physical activity is a stated project objective for the Physical Activity criterion. Facilities for pedestrians and cyclists have been incorporated into the scheme options described in section 5.2 of this report. As the scheme options include either the provision of new dedicated cycling/walking facilities or the enhancement of existing facilities, Physical Activity has been included as a criterion in the Project Appraisal Matrix in accordance with TII PAG.

7.7.1 Physical Activity Appraisal

The Department of Transport's "Smarter Travel" policy (DoT, 2009a) commits the Government to supporting walking and cycling and encouraging people to switch to more sustainable modes of travel. An important component of this is providing safe, attractive and well-designed facilities for pedestrians and cyclists. The project aims to improve and further separate motorised commuter traffic on the national primary route from the local road network utilised by walkers and cyclists which may encourage increased levels of physical activity. Table 7-75 below show the appraisal of each scheme option under the Physical Activity appraisal criterion.

There are a number of existing or proposed cycle and walking routes are located near or within the N25 Rosslare Europort Access Road study area. There are two cycle routes currently running along the length of Scheme Options A and B. These are the Wexford Cycle Hub Loop 3, and the Eurovelo Route 1. There is also a single walking trail which intersects part of Scheme Options A and B, the Rosslare Harbour Village Trail. Finally, the proposed Rosslare Strand to Rosslare Europort Greenway which is currently undergoing options appraisal meets the north eastern end of Scheme Options C1 and C2. The location of these routes/trails in relation to the scheme options are presented in Appendix C Figure 7.2.

Increases in traffic volumes which are utilising the roadway has the potential to increase risk to cycling/pedestrian users. While some of the above mentioned routes/trails are currently partially facilitated in cycle lanes and footpaths along the existing roadway, increases in traffic volumes (both due to national increases and increases in volumes utilising the port) without upgrading the roadway has the potential to decrease safety and the attractiveness of the cycle and walking trails in the area. No upgrade to the existing cycle and pedestrian facilities are proposed for Scheme Option A, therefore the option will not add any improvement to the current level of physical activity in and around the area of Rosslare Europort/Rosslare Harbour village and it is likely that levels of physical activity may be impeded as traffic levels increase into the future.

The upgrades to the roadway which would be incorporated in Scheme Option B include for a 4m wide off-road cycle path and footpath facility. These facilities will be on both sides of the roadway and will tie in with the existing cycle/pedestrian path thereby improving the network for pedestrians and cyclists. Proposed signalised pedestrian/cycleway crossing, and the proposed pedestrian overpass will also serve to improve connectivity and safety for pedestrian and cyclist users. Improvements to these facilities will have the potential to result in a positive impact in the amenity value of these cycle routes and walking trails in the area thus increasing the current level of physical activity in and around the area of Rosslare Europort/Rosslare Harbour village.

Scheme Options C1 & C2 connect with Eurovelo Route 1 & Wexford Cycle Hub Loop 3 at the proposed N25 Ballygillane Roundabout, and also intersect with the proposed Waterford to Rosslare Harbour Greenway Project. It is proposed that dedicated cycling and walking facilities will be incorporated into Option C and will directly link with the proposed greenway route to provide a fully integrated walking and cycling network. This will have the potential to result in a positive impact as the road safety and amenity value of the routes/trails will increase and thus increasing the current level of physical activity in and around the area of Rosslare Europort/Rosslare Harbour village. Option C also creates a continuous, dedicated and fully integrated circuit for active travel that may stimulate increased levels of physical activity by encouraging people to cycle or walk around the circuit.

Option C1 and Option C2 will also result in the majority of heavy traffic that makes use of the roadways being diverted away from the existing cycle paths and walking trails. This removal of HGV traffic from the Rosslare Village and the segregation HGV traffic form other vulnerable road uses would offer potential benefits to local vulnerable road users in terms of amenity and safety.

Increased physical inactivity will result in positive impacts on health and evidence from the World Health Organisation (WHO) has shown that by increasing physical activity the relative risk of mortality reduces. The increase in physical activity will also have a beneficial effect on work absenteeism on top of the health benefits to the individual person. This reduction in short-term sick leave also increases productivity in the economy.

Table 7-75: Physical Activity Appraisal

Physical Activity				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
Physical Activity	Scheme Option A – 'Do-Minimum' Option	n/a (Note 1)	No upgrade to the existing cycle and pedestrian facilities are proposed for this option. Option A will therefore not add any improvement to the current level of physical activity in and around the area of Rosslare Europort/Rosslare Harbour village.	4
	Scheme Option B – 'Do-Something' Management Option	n/a (Note 1)	Option B will add improvement to physical activity in the Rosslare Harbour area with the addition of designated pedestrian crossings and footway/cycle facilities. The improved and designated pedestrian/cycleway infrastructure proposed between the Ballygillane Roundabout to Rosslare Europort through Rosslare Village will promote physical activity in the area by increasing safety for pedestrian/cyclist users. Improvements to these facilities will also have the potential to result in a positive impact in the amenity value of the cycle routes and walking trails in the area.	6
	Scheme Option C (C1 & C2) – 'Do-Something' Development Option	n/a (Note 1)	Option C will greatly improve physical activity in the area as this option provides improved pedestrian/cycleway infrastructure from Ballygillane Roundabout to Rosslare Europort through dedicated online and offline pedestrian/cycleway facilities. The removal of HGV traffic from the Rosslare Village and the segregation HGV traffic form other vulnerable road uses would offer potential benefits to local vulnerable road users in terms of amenity and safety. Option C will also directly link with the proposed greenway route and will have the potential to result in a positive impact in the amenity value of all cycle and walking routes/trails in the area. Option C also creates a continuous, dedicated and fully integrated circuit for active travel that may stimulate increased levels of physical activity by	7

Physical Activity				
Criterion	**Scheme Option**	**Quantitative Assessment**	**Qualitative Assessment**	**Score**
			encouraging people to cycle or walk around the circuit.	

Note 1 In the case of some elements within each criterion the inclusion of a quantitative statement is not possible as only a qualitative assessment or examination is required, hence there are no quantitative amounts or values which can be included.

7.7.2 Combined Physical Activity Appraisal Matrix

An analysis was undertaken comparing the preferences for each scheme option identified under the physical activity heading. The results of all the physical activity assessment was considered in determining a Preferred Scheme Option.

Table 7-76 Combined Physical Activity Appraisal Matrix below, outlines the preferences of each scheme option under the physical activity heading.

Table 7-76- Combined Physical Activity Appraisal Matrix

Criterion	Sub Criteria	Scheme Option A	Scheme Option B	Scheme Option C (C1 & C2)
Physical Activity	Physical Activity	4	6	7
Total Physical Activity Score		4	6	7

7.8 Combined Project Appraisal Matrix

Following the appraisal of the scheme options, the preference for each scheme option under the 6 appraisal headings is summarised in the 'Combined Project Appraisal Matrix' shown in Table 7-77 and in the 'Preference Matrix for Scheme Options' shown in Table 7-78 below.

Table 7-77: Combined Project Scheme Option Appraisal

Criterion	Scheme Option A	Scheme Option B	Scheme Option C	
			Scheme Option C1	Scheme Option C2
Economy	10	11	15	13
Safety	8	8	11	11
Environment	44	45	42	42
Accessibility & Social Inclusion	8	10	12	12
Integration	13	22	28	28
Physical Activity	4	6	7	7
Total Score	87	102	115	113

Table 7-78 - Preference Matrix for Scheme Options

Criterion	Scheme Option A	Scheme Option B	Scheme Option C	
			Scheme Option C1	Scheme Option C2
Economy	Least Preferred	Intermediate	Preferred	Preferred
Safety	Intermediate	Intermediate	Preferred	Preferred
Environment	Intermediate	Preferred	Least Preferred	Least Preferred
Accessibility & Social Inclusion	Least Preferred	Intermediate	Preferred	Preferred
Integration	Least Preferred	Intermediate	Preferred	Preferred
Physical Activity	Least Preferred	Intermediate	Preferred	Preferred
Total Score	**Least Preferred**	**Intermediate**	**Preferred**	**Preferred**

7.8.1 Recommendation on a Preferred Scheme Option

Table 7-77 'Combined Project Appraisal Matrix' and Table 7-78 'Preference Matrix for Scheme Options' above demonstrate that the appraisal of the scheme options has identified Option C as the best performing option with only very marginal differences between sub-options C1 & C2. Scheme Option C has been identified as the scheme option that best meets the project objectives and is therefore recommended as the preferred scheme option and will be brought forward for final presentation of expected impacts of the proposed investment. A Project Appraisal Balance Sheet shall present a summary of the expected impacts.

The precise design, including the cross-section and junction arrangement, will be determined during Phase 3 (Design and Environmental Evaluation Phase) of the Scheme.

The option selection process has confirmed that the project is consistent with and supports relevant policies at European, national, regional and local levels, and it is considered that the preferred scheme option can be developed to adhere to the principles of proper planning and

sustainable development in accordance with the Planning & Development Act 2000. Compliance with the principles of proper planning and sustainable development will continue to be tested as the preferred scheme option is further developed through Phases 3 & 4 for the submission of a development application for the relevant statutory planning processes.

8 Preferred Scheme Option and Preparation of PABS

8.1 Project Appraisal Balance Sheet (PABS) of the preferred scheme option.

The Project Appraisal Balance Sheet (PABS) has been compiled for the preferred scheme option (Option C) in accordance with TII Project Appraisal Guidelines for National Roads Unit 12.0 - Minor Projects (€5m to €20m) PE-PAG-02035. The PABS assesses preferred scheme option using the following criteria;

- Environment,
- Safety,
- Economy,
- Accessibility and Social Inclusion.
- Integration, and
- Physical Activity

The PABS includes a qualitative statement, quantitative statement and a scaling statement for each element, where applicable. A qualitative statement summarises the impacts of the project in qualitative terms, while the quantitative sets out quantitative or monetised indicators where possible. Each element is ranked with a scaling score/statement which indicates whether the impact is;

7 - Highly positive,
6 - Moderately positive,
5 - Slightly positive,
4 - Neutral,
3 - Slightly negative,
2 - Moderately negative, or
1 - Highly negative.

The project Appraisal Balance Sheet for this scheme is shown below in Table 8-1.

Table 8-1 - Project Appraisal Balance Sheet – Preferred Scheme Option – Option C (C1 & C2)

Scheme	Description	Problems Identified	TSB
N25 Rosslare Europort Access Road Scheme	The Preferred Scheme Option consists of a combination of existing road infrastructure along with a new road corridor to provide a new access route to Rosslare Europort. This option utilises the existing Ballygerry Link Road and begins at its junction with the existing N25 National Road. The scheme option includes the proposed Ballygillane Roundabout scheme at this junction which has received planning approval and is due to be completed in 2021. A new section of road then extends from the existing junction of the Ballygerry Link Road/Churchtown Road and loops to the north, crossing the existing railway track before continuing east to connect into Rosslare Europort, via a new roundabout proposed as part of the future development of the Rosslare Europort which received planning approval in August 2020. The scheme consists of approximately 1.5km of road carriageway, a railway crossing, footway, cycle track and associated local road works. The cross-section (C1-Single c/w urban relief or C2-dual c/w urban relief or combination of both) and junction arrangements for the Preferred Scheme Option, will be determined during Phase 3 (Design ad Environmental Evaluation Phase) of the Scheme.	• Road Safety • Journey Times & Operating Efficiency • Existing Road Characteristics • Road Traffic Volumes • Europort Throughput Volumes • Levels of Service	C1 = €11,145,939.2 C2 = €16,007,536.4

Objective	Sub-Objective	Qualitative Impacts	Quantitative Assessment	Monetised (€ million over 30yrs.)		Score
Environmental	**Air Quality & Climate**	**Air Quality** No exceedances of air quality standards anticipated (Note 3). Small improvement in exposure to NOx and PM_{10} at nearby sensitive receptors. **"Minor or slightly positive"**	**Air Quality** Small beneficial NOx and PM_{10} Index of Overall Change in Exposure. NOx index = -3,134 PM10 index = -505	Air Pollution	n/a (Note 2)	4

		Climate Highest construction GHG emissions. No distinguishable differentiation between operational GHG emissions when compared to the 'Do Nothing' scenario and other scheme options **"Minor or slightly negative"**	**Climate** Not assessed			
	Noise & Vibration	Results indicate the Preferred Scheme Option potential impacts are less compared to the other scheme options due to transfer of road traffic away from noise sensitive residential areas. **"Minor or slightly positive"**	PIR = 137, No. sensitive receptors greater than 60 dB L_{den} = 56	Noise	n/a (Note 2)	5
	Landscape and Visual Quality	Negative impacts associated with the Preferred Scheme Option were recorded for landscape, visual and visual amenity criteria. There was no significant difference between Scheme Options C1 and C2. As such, Scheme Option C1 and C2 are assessed as **"Moderately Negative"**.	Potential negative visual impacts identified to: • Localised impacts from surrounding local roads where the elevated sections of the proposed road alignment will be visible to the rear of a row of residential dwellings. • Visual impacts from the railway line Potential negative impacts to landscape identified through: • Removal of several sections of hedgerows and areas of scrubby vegetation to facilitate the footprint of the scheme option • Option encroaches on some of the more sensitive coastal areas of the and will result in the removal of areas of scrubby grassland that backs the coastline. Potential negative visual amenity impacts identified to: • Impacts on residential visual amenity at dwellings along the			2

			local road to the immediate east of the elevated sections of the Preferred Scheme Option. • Potential for significant impacts to occur to one residential house as the proposed alignment cuts through the rear of this property. • impacts on residential visual amenity at a dwelling to the west of the elevated sections of the proposed road alignment impacts on residential visual amenity at dwellings south of the railway line.		
	Biodiversity (Flora and Fauna)	No significant impact on Designated sites, and biodiversity. Potential for "**minor or slight negative impacts"** to ecologically important sites, watercourses, protected species and habitats, and invasive species.	No designated sites were located within the footprint of the Preferred Scheme Option. No potential for impact was identified to European Sites located outside of the option footprints. One locally ecologically important site was identified. Invasive species have been recorded in proximity to this route. No protected habitats were identified in the footprint of the Preferred Scheme Option. Two protected bird species were identified with potential for local impacts impact by the Preferred Scheme Option.		3
	Waste	Given the volumes of waste that may be produced as a result of constructing the Preferred Scheme Option, and the potential for encountering hazardous material, the impact is assessed as **"Moderately Negative".**	Sub-Option C1 requires approximately 56938 m3 of cut, while Sub-Option C2 requires approximately 84013m^3 of cut. Potential for encountering hazardous material identified at the railway crossing.		2
	Soils and Geology	The Preferred Scheme Option will have minimal impact as the aspects impacted	Sub-Option C1: Quantities for cut fill balance:		3

		are considered to be of relatively low importance. Agricultural Soils - Excavation required across agricultural land of poor quality – **"Minor Negative"** Geology (drift / solid) - Excavation into Glacial Till to create cutting on approach to port entrance. Soft ploughed material may lead to settlement of embankment on agricultural land if not removed. – **"Minor Negative"** Geohazards - Possible reactivation of shear surfaces in cutting slopes which are within relict sea cliff. These can be managed through effective slope design. – **"Neutral"** Geomorphology - Geomorphology of relict sea cliff will be altered by cutting excavation. – **"Minor Negative"** Made Ground / Landfills - Limited Made Ground along route. Likely to be removed during construction. – **"Minor Positive"** Construction Materials - Unable to reuse cut material (Macamore Clay) to balance embankment fill. Macamore Clay to be disposed of from site and consequently, general fill required for the embankments will have to be imported to site. – **"Moderate Negative"** Construction Stage Inputs - Storage of excavated materials during construction may lead to erosion and run-off of material. – **"Minor Negative"**	Cutting 56938m^3 Embankment 46189m^3 Potential removal of soft ground below embankment footprint: Volume 1387m^3 Sub-Option C2: Quantities for cut fill balance: Cutting 84013m^3 Embankment 61848m^3 Potential removal of soft ground below embankment footprint: Volume 1858m^3		
	Hydrology	Improvement in drainage system in comparison to the 'Do-Minimum' scheme option will reduce risk of flooding of carriageway and 3rd party property. The risk of surface water contamination will	n/a (Note 1)		5

		be reduced by the use of standard drainage design. Climate Change - Drainage will be built to current standards and account for climate change. In relation to coastal erosion, with the information available it has indicated the retreat of the small bay is not anticipated to reach the proposed development options during the lifespan of the asset (120 years). – **"Minor Positive"** Flooding – No impact – route is not located on flood plain. – **"Neutral"** Surface Water Quality - Drainage systems constructed to current standards will ensure quality of discharge to surface water. Improvement over current system. – **"Minor Positive"**			
	Hydrogeology	Potential to impact aquifer due to excavation will be mitigated by use of standard drainage details. The same details will prevent contamination of groundwater. Aquifers - Cutting may impact on aquifer (poor quality aquifer - generally unproductive except for local zones) requiring good management of discharges to ensure aquifer is not contaminated. – **"Minor Negative"** Groundwater Quality - Design of drainage system to correct standard will maintain groundwater quality. – **"Neutral"**	n/a (Note 1)		3
	Architectural Heritage	There are no architectural features within 100m of the Preferred Scheme Option. **"Not significant or Neutral"**	No impact predicted on any architecture feature as all over 100m distant from centreline of the Preferred Scheme Option.		4

	Archaeological and Cultural Heritage	There are four previously unrecorded cultural heritage features within 100m of the Preferred Scheme Option and the closest is 23m (CH27). **"Minor or slightly negative"**	No predicted impact on six archaeological monuments and cultural heritage features as sufficiently distant from centreline of the Preferred Scheme Option. One (CH27) is 23m from the centreline of this option and may be impacted in a minor/slightly negative way.		3
	Non-Agricultural Properties	Given that the impacts are neutral overall with the exception of the potential for improvements to amenity value of walking and cycling trails in the area, the Preferred Scheme Option is therefore assessed as having potential for **"minor or slightly positive"** impacts.	The Preferred Scheme Option is predominantly located within agricultural grassland. the Preferred Scheme Option crosses into land associated with only one residential building. Potential for increases in amenity value to walking and cycling trails in the area. No impact to lands zoned for development as the Preferred Scheme Option falls within lands zoned for the N11/N25 road scheme. No potential for impact to granted planning permissions.		5

	Agriculture	The land-take and severance impacts will result in a significant adverse impact on this medium sensitivity land-parcel. **"Minor or slightly negative"**	No impact on high sensitive farms but there is an impact on one medium sensitivity land parcel. Approx. 0.5Ha of low sensitivity agri-land and approx. 1.8ha of medium sensitivity. Severance of one medium sensitivity land parcel (approx.1.1ha). One significant impact on farm viability.				3
Safety	**Collision Reduction**	While the COBALT assessment shows a disbenefit in collision costs compared to the 'Do-Minimum' option (as a result of the inclusion of a new additional road into the road network), the severity of accidents along the Preferred Scheme Option is considered likely to be reduced due to segregated/removal of HCV Port traffic from the village of Rosslare Harbour. It is also considered that the likelihood of accidents occurring between cyclists/pedestrians and road traffic will be reduced compared with the 'Do-Minimum' option route due to the provision of segregated or off-road cycle/pedestrian facilities along the Option C road. Sub Option C2 of the Preferred Scheme Option has a lower standardised accident	<u>Sub-Option C1:</u> Total collisions increase to 41.8 Total collision cost to €1,598,900, with a realised safety disbenefit of -€170,500 <u>Sub-Option C2:</u> Total collisions increase to 39.5 Total collision cost to €1,518,700, with a realised safety	Collisions saved over 30 years	Value of Change	C1: -€170,500.00 C2: - €90,300.00	C1 = 5 C2 = 6

		cost (compared with C1 Option) due to the presence of a central reservation.	disbenefit of -€90,300				
	Security	Port traffic is segregated from local traffic. New route for port traffic, away from village and provides the greatest benefit to overall road safety. The Preferred Scheme Option provides segregated infrastructure to cater for the needs of pedestrians and cyclists through the provision of segregated or off-road cycle and pedestrian facilities along the road. The Preferred Scheme Option will have very limited junctions compared to Option B. Routes with fewer (and more lightly trafficked) junctions and accesses are safer. Vulnerable road users will find it difficult to cross a dual carriageway (Sub-Option C2) compared to single carriageway on Sub-Option C1. A Stage F Road Safety Audit ranked Options C1 & C2 as 'significantly superior' to the other options (including Do-Minimum) because removal of Port traffic from the village provides the greatest benefit to overall safety. **"Moderately positive" or "Minor or slightly positive"**					C1 = 6 C2 = 5
Economy	**Transport Efficiency and Effectiveness**	<u>Sub-Option C1:</u> <u>TII Simple Appraisal Tool Output:</u> Journey Time Impacts (€ Million) = €5.12 Vehicle Operating Costs Impacts (€ Million) = €0.34 Present Value Benefits, PVB (€ Million) = €9.11 Present Value Costs, PVC (€ Million) = €7.87 Net Present Value (NPV) (€ Million) = €1.25 Benefit to Cost Ratio (BCR) = 1.16 <u>Sub-Option C2;</u> <u>TII Simple Appraisal Tool Output:</u> Journey Time Impacts (€ Million) = €5.12 Vehicle Operating Costs Impacts (€ Million) = €0.34 Present Value Benefits, PVB (€ Million) = €9.11 Present Value Costs, PVC (€ Million) = €11.92 Net Present Value (NPV) (€ Million) = -€2.81 Benefit to Cost Ratio (BCR) = 0.76	n/a (Note 2)	Vehicle-hours per day in time travel savings	Non-Business	n/a (Note 2)	C1 = 6 C2 = 5
					Business	n/a (Note 2)	
			n/a (Note 2)	Vehicle-km per day in travel distance savings	Active Travel	n/a (Note 2)	
					Residual Value	n/a (Note 2)	

		The cost of the Preferred Scheme Option is higher than Option B but the improvements to journey times, traffic levels and overall value for money are greater. Sub-Option C1 achieves a better benefit cost ratio compared to the other scheme options. Sub-Option C1 achieves a benefit to cost ratio in excess of 1.0, which indicates a positive return on investment **"Moderately positive" or "Minor or slightly positive"** Note: The Phase 2 economic appraisal also included a 'future scenario analysis' in accordance with the Public Spending Code and Common Appraisal Framework for Transport Projects and Programmes. This involved examining a range of different future "what if" scenarios taking into account levels of uncertainty about the future. For the purposes of identifying the preferred scheme option only the baseline scenario was appraised and scored for the economy criterion. It is noted that the future scenarios appraised all resulted in improved economic outturns. The future scenario analysis is reported separately in the Phase 2 Project Appraisal Report					
	Wider Economic Impacts	Rosslare Europort is a key strategic transport link between Ireland and both the European mainland and the United Kingdom. It is an important ferry port for all major Roll-On, Roll-Off (RORO) passenger and freight services operating on UK and continental routes. Rosslare Europort is the State's second largest passenger port, and the fourth largest port in terms of overall tonnage.	n/a (Note 1)			€0.00	6

		The N25 Rosslare Europort Access Road project recognises Rosslare Europort as a key strategic transport link between Ireland and both the European mainland and the United Kingdom and one of the key objectives of the project is to improve accessibility and connectivity to Rosslare Europort in order to secure sustainable future access and to mitigate the risks from current constraints and limitations of the existing access. Rosslare Europort is projecting a 20% increase in port traffic over the five-year period 2020-2025 and this expected increase is a major factor in the need for investment in the N25 Rosslare Europort Access Road Project. Rosslare Europort's current and expected future share of national port traffic and its strategic importance as part of Ireland's response to Brexit is considered to make the securing of high-quality access to the Port of key strategic importance. Rosslare Europort recently received planning approval for the development of a new road layout into the Port as part of Phase 1 of the Master Plan for the Port. The Preferred Scheme Option is compatible with the design of the new road layout in the Port and will connect directly to the proposed Western Roundabout within Rosslare Europort road layout. The wider potential economic impacts of the project are considered **"Major or highly positive"** due to improvements to the efficiency of this strategic multi-modal international transport corridor (road & sea travel). The proposed transport investment will therefore stimulate the potential for improved economic productivity, output		

		and employment, particularly in the context of the economic challenges of Brexit."				
	Funding	It is anticipated that the project will be exchequer funded. **"Not significant or Neutral"**	n/a (Note 1)	PVC	n/a (Note 1)	4
Accessibility & Social Inclusion	**Deprived Geographical Areas**	The Preferred Scheme Option will improve access to Rosslare Europort and will improve the local environment in and around Rosslare Harbour particularly for residents, by removing port traffic from the village. The Preferred Scheme Option will therefore provide improved access to employment, education, essential services and amenities in and around the geographical area of Rosslare Harbour. **"Moderately positive"**	n/a (Note 1)			6
	Vulnerable Groups	The Preferred Scheme Option will improve access to Rosslare Europort and will improve the local environment in and around Rosslare Harbour particularly for pedestrians and cyclists, by removing port traffic from the village. The removal of Port traffic form the Rosslare Harbour village therefore has a positive benefit to vulnerable road users including people with no access to vehicles, which will provide better access to employment and/or infrastructure in the area. The Preferred Scheme Option also provides improved access to the public transport (rail and bus) infrastructure in the vicinity of Rosslare Harbour for vulnerable groups through the provision of a new access route to the Rosslare Europort which will provide opportunity for the provision of enhanced facilities for pedestrians and cyclists.	n/a (Note 1)			6

		"Moderately positive"			
Integration	**Transport Integration**	The Preferred Scheme Option provides a new route from the Ballygillane Roundabout which utilises the existing Ballygerry Link Road and connects directly to the proposed Western Roundabout within Rosslare Europort. This new route creates a strong link within the existing road network and adds value to the N25. It is noted that the Preferred Scheme Option can integrate with all scheme options currently under consideration for the separate N11/N25 Oilgate to Rosslare Harbour project, and combined with the offline scheme options for the N11/N25 project, could potentially provide the most efficient access to the Port. The full integration of these separate projects is critical to achieve the most efficient access to Rosslare Europort, however as the option selection process for N11/N25 project has not concluded no assumptions have been made on the outcome of the process. Connectivity between transport modes is improved as the Preferred Scheme Option provides the most efficient connection (compared with other scheme options) with the Rosslare Europort Phase 1 Master Plan which received planning approval in August 2020 and proposes a new layout for Port road infrastructure and customs/check-in facilities. The preferred scheme option incorporates dedicated pedestrian and cycle facilities that will fully integrate with the proposed corridor for the Waterford to Rosslare Harbour Greenway. This option provides support for sustainable transport modes through	n/a (Note 1)		7

		improved pedestrian/cycleway infrastructure from Ballygillane Roundabout to Rosslare Europort through dedicated online and offline pedestrian/cycleway network which provides connection via Churchtown Road to the proposed Waterford to Rosslare Harbour Greenway. **"Major or highly positive"**			
	Land-use Integration	The Preferred Scheme Option provides a new route from the Ballygillane Roundabout which utilises the existing Ballygerry Link Road and connects directly to the proposed Western Roundabout within Rosslare Europort. This meets Objective T11 of the Wexford County Development Plan 2013-2019 Development Plan which is '*To support and facilitate the development of enhanced transport infrastructure at Rosslare Europort*'. Section 8.6.1 of the Development Plan states that the National Spatial Strategy recognises the N25 as a '*Strategic Linking Corridor*' and acknowledges the Council's belief that the '*enhancement of these routes is of great importance to the economic well-being of the Country as a whole and in ensuring ease of access to and from Rosslare Europort.*' The proposed route option will separate national and regional traffic from local traffic and thereby respond to the needs of strategic long-distance trips including Port generated freight traffic that is of critical strategic importance to the Irish economy. The route also provides the best option to link with the preferred route corridor for N25/N11 Oilgate to Rosslare Harbour Road Scheme which is included in the Wexford County	n/a (Note 1)		7

		Development Plan (Map 9) and meets Objective T15, which is '*to support the development of the following national roads schemes…N25/N11 Oilgate to Rosslare Harbour*'. **"Major or highly positive"**			
	Geographical Integration	The National Planning Framework (NPF) – Project Ireland 2040 sets out two National Strategic Outcomes (NSOs) directly relate to the proposed road development; • Enhanced Regional Accessibility (NSO 2) • High Quality International Connectivity (NSO 6) Under 'Enhanced Regional Accessibility' the NPF provides the following national strategic outcomes for inter-urban roads; • Maintaining the strategic capacity and safety of the national road network including planning for future capacity enhancements; • Improving average journey time, targeting an average inter-urban speed of 90km/h. In the context of international connectivity, the proximity of Rosslare Europort to mainland Europe is identified as an opportunity to leverage regional growth, and its proximity to EU trading partners is identified as important in Ireland's response to Brexit. The Preferred Scheme Option directly supports the delivery of the NPF strategic outcomes by improving accessibility and connectivity to Rosslare Europort and also by securing the future strategic capacity of the port and its connection with the national road network through the removal of existing capacity constraints on the current access route.	n/a (Note 1)		7

		"Major or highly positive"			
	Other Government Policy Integration	Transport investment on routes which improve access to international ports are crucial to regional balance. The National Ports Policy 2013 categorises Rosslare Harbour as a Tier 2 Port of National Significance. It was will also play an important role in Ireland's response to Brexit. In 2011, 12,057 vessels carrying 45 million tonnes called at 19 Irish ports. Figures show that Rosslare Europort facilitated 1791 of these vessel calls which made it Irelands busiest port outside of Dublin in 2011. Furthermore, Rosslare Europort is projecting a 20% increase in port traffic over the five-year period 2020-2025. Investment in he Preferred Scheme Option will improve access to Rosslare Europort which will promote regional balance in line with Government policy. **"Major or highly positive"**	n/a (Note 1)		7
Physical Activity	**Physical Activity**	The Preferred Scheme Option will greatly improve physical activity in the area as this option provides improved pedestrian/cycleway infrastructure from Ballygillane Roundabout to Rosslare Europort through dedicated online and offline pedestrian/cycleway facilities. The removal of HGV traffic from the Rosslare Village and the segregation HGV traffic form other vulnerable road uses would offer potential benefits to local vulnerable road users in terms of amenity and safety. The Preferred Scheme Option will also directly link with the proposed greenway route and will have the potential to result in a positive impact in the amenity value of	n/a (Note 1)		7

		all cycle and walking routes/trails in the area. The Preferred Scheme Option also creates a continuous, dedicated and fully integrated circuit for active travel that may stimulate increased levels of physical activity by encouraging people to cycle or walk around the circuit. **"Major or highly positive"**				
				PVB	**€9.11**	
				BCR	**C1 = 1.16** **C2 = 0.76**	

Note 1: In the case of some elements within each criterion the inclusion of a quantitative statement is not possible as only a qualitative assessment or examination is required, hence there are no quantitative amounts or values which can be included.

Note 2: The Cost Benefit Analysis (CBA) was conducted using the TII 'Simple Appraisal Tool' in accordance with TII PAG Unit 12. Values are not outputted from the TII 'Simple Appraisal Tool'. Such values are only available following the undertaking of CBA using the TUBA computer software. The Project Appraisal Guidelines (section 8.1 of PE-PAG-02035) indicates that TUBA should be used for more complex projects that require the development of an assignment traffic model. As a microsimulation traffic model was developed for the scheme, it was recommended that the 'TII Simple Appraisal Tool' approach be used for the economic assessment for the N25 Rosslare Europort Access Road scheme.

Note 3: Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011).

Note 4: Note 2 Abbreviations:

CBA	Cost Benefit Analysis
PVC	Present Value of Cost
PVB	Present Value of Benefits
NPV	Net Present Value
BCR	Benefit to Cost Ratio
OCE	Option Comparison Estimate
NOx	Nitrogen Oxides
PM10	Particular Matter of 10 micrometre or less
PIR	Potential Impact Rating
NPF	National Planning Framework
NSOs	National Strategic Outcomes
HGV	Heavy Goods Vehicle

8.2 Summary of Road Safety Audit Stage F (Part 2).

A Stage F Part 2 Road Safety Audit was carried out on the Preferred Scheme Option (Scheme Option C “Do-Something” Development Option) in accordance with TII publication GE-STY-01024 Road Safety Audit. The audit was carried out in October 2020.

All items arising from the Road Safety Audit will be addressed during the Phase 3 Design and Environmental Evaluation (Phase 3) of the TII Project Managers Manual.

The report is attached as appendix G.

8.3 Recommendation that referred option should form the basis of Phases 3.

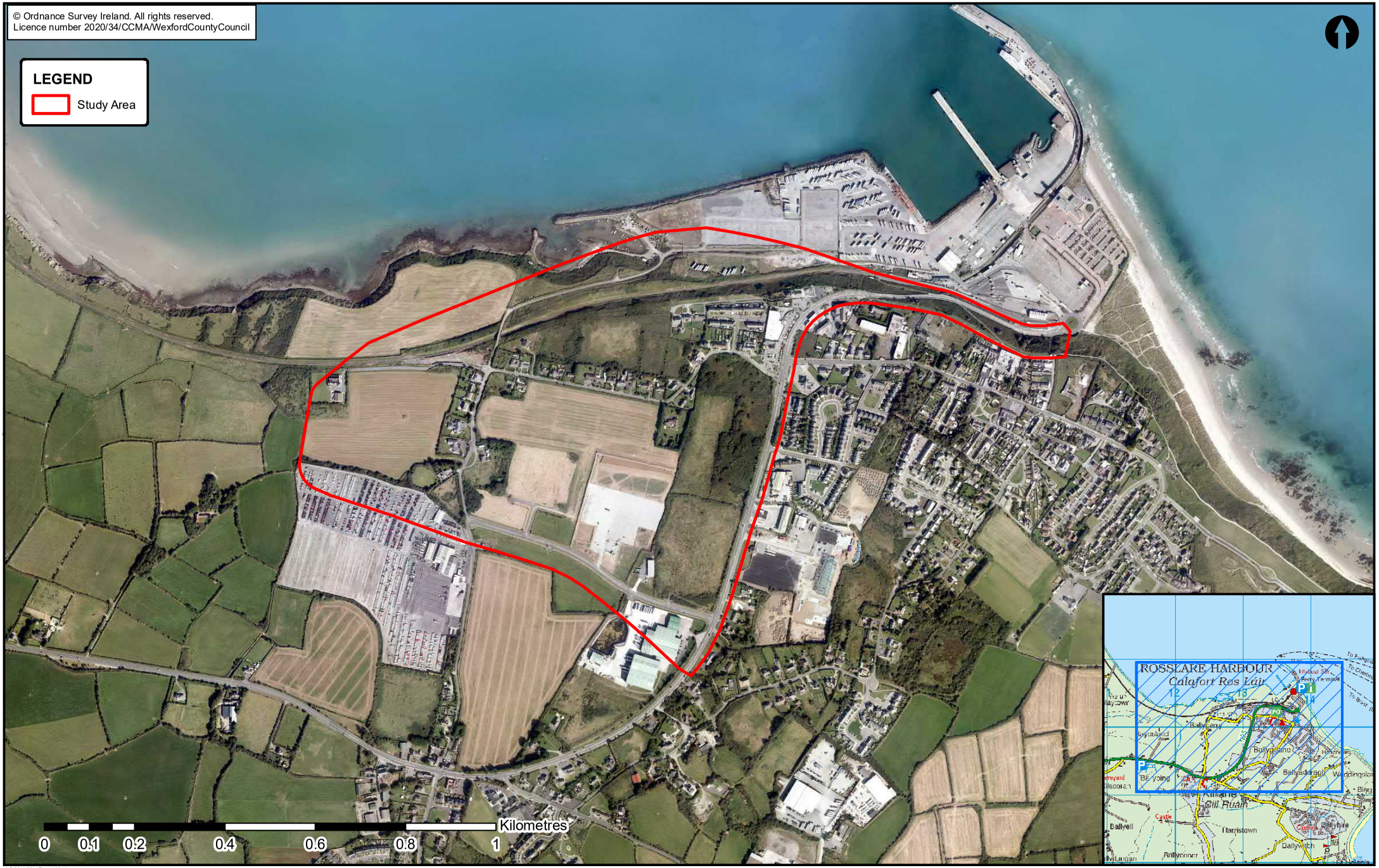
Following the discussion in section 7.8.1, it is recommended that Scheme Option C is the preferred scheme option to be brought forward to the Design Phase (Phase 3) of the TII Project Appraisal Guidelines.

The preferred scheme option, Option C (“Do-Something” Development Option), consists of a combination of existing road infrastructure along with a new road corridor to provide a new access route to the Rosslare Europort. This option utilises the existing Ballygerry Link Road and begins at its junction with the existing N25 National Road, where the proposed N25 Ballygillane Roundabout is again included. A new section of road then extends from the existing junction of the Ballygerry Link Road/Churchtown Road and loops to the north, crossing the existing railway track before continuing east to connect into Rosslare Europort, via a new roundabout proposed as part of the future development of the Rosslare Europort. Consultation took place with Rosslare Europort to ensure that any scheme proposal that may develop from this option will be compatible with the Port’s own future infrastructural plans.

A technical review has confirmed that a crossing of the railway track is feasible at the location in question. This technical review and consultations with Irish Rail has also confirmed that a railway overbridge crossing would be the preferred crossing type and an at-grade level crossing would not be preferred. Scheme Option C therefore incorporates a new railway overbridge and option costs have been developed on this basis.

Appendices

A - Constraints Mapping/Figures



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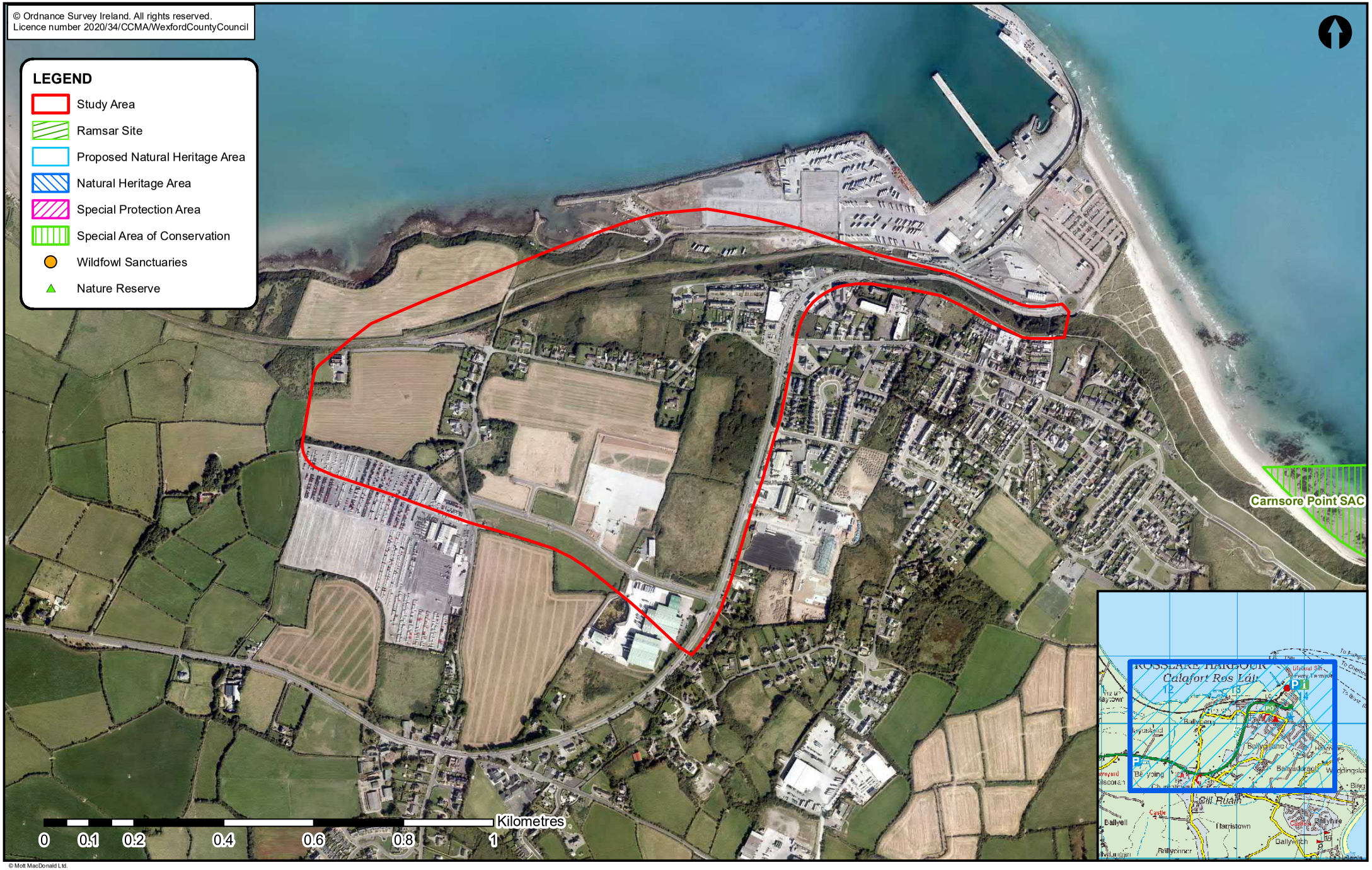
Overview of Study Area

Figure 2.1.1 Rev. P2



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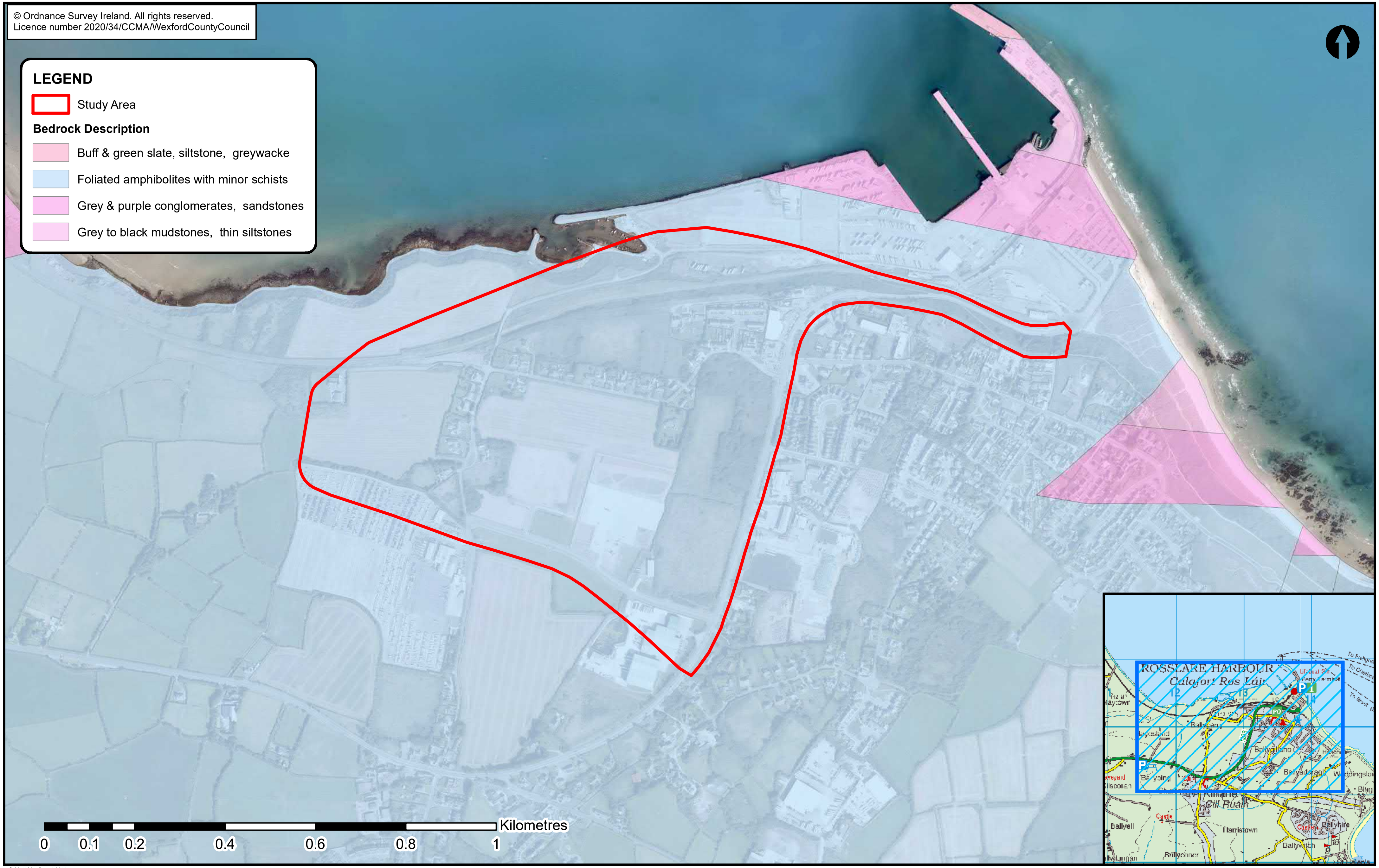
Designated Conservation Sites

Figure 3.1.1 Rev. P2



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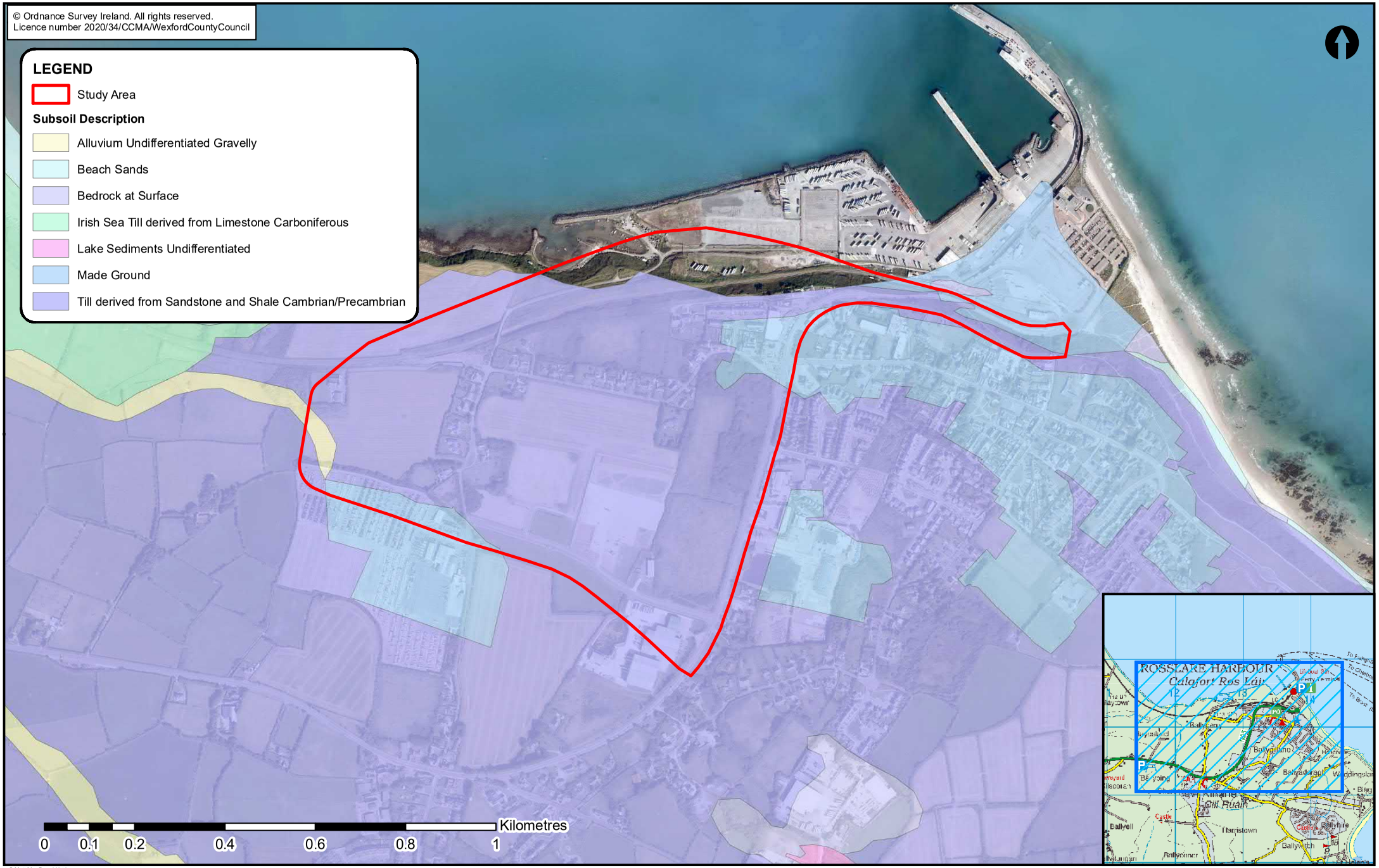
Bedrock Geology

Figure 3.2.1 Rev. P2



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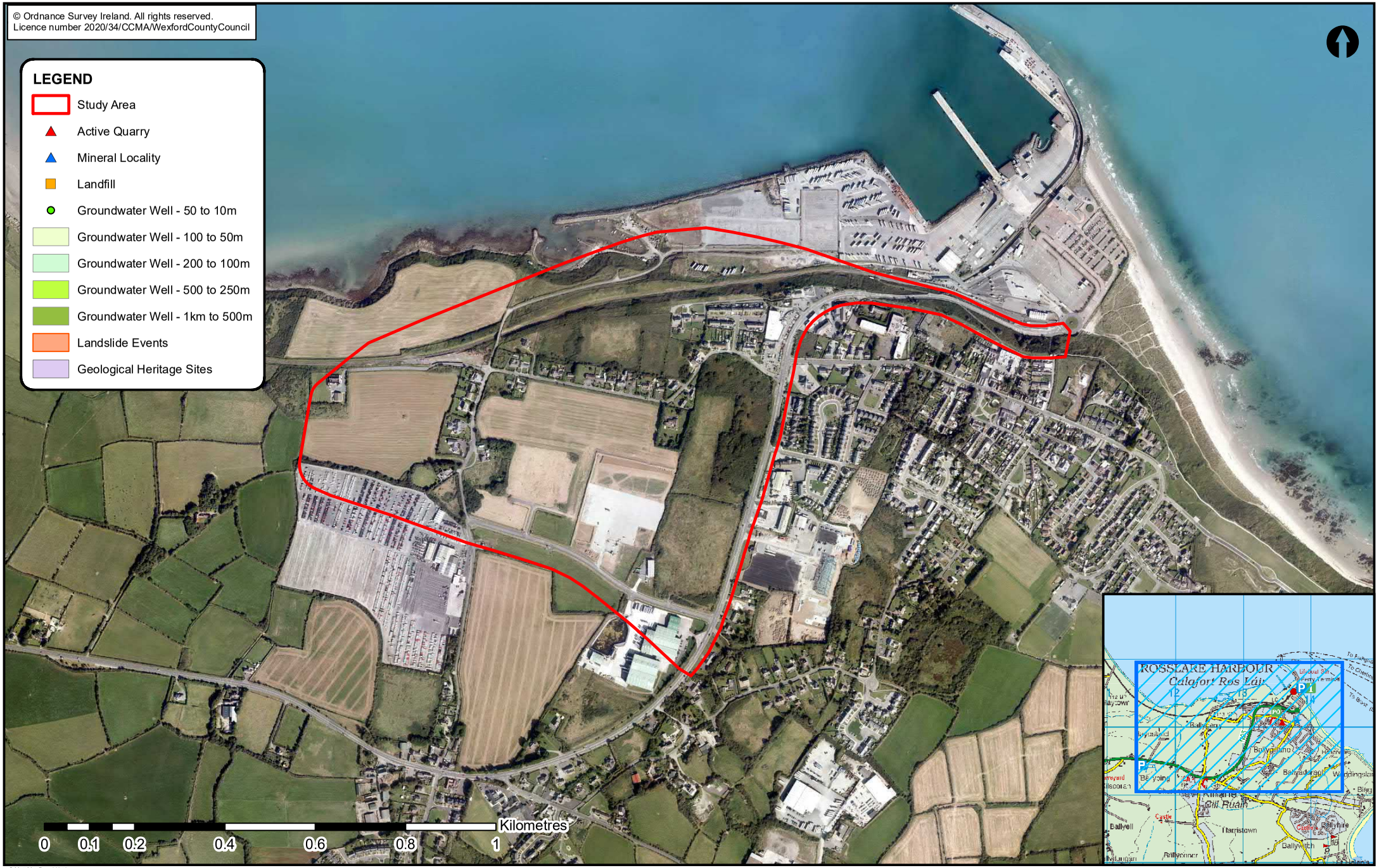
Subsoils

Figure 3.2.2 Rev. P2



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Location of Minerals, Pits, Quarries and Groundwater Wellls

Figure 3.2.3 Rev. P2

LEGEND

- Study Area
- PI - Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones

Kilometres
0 0.1 0.2 0.4 0.6 0.8 1

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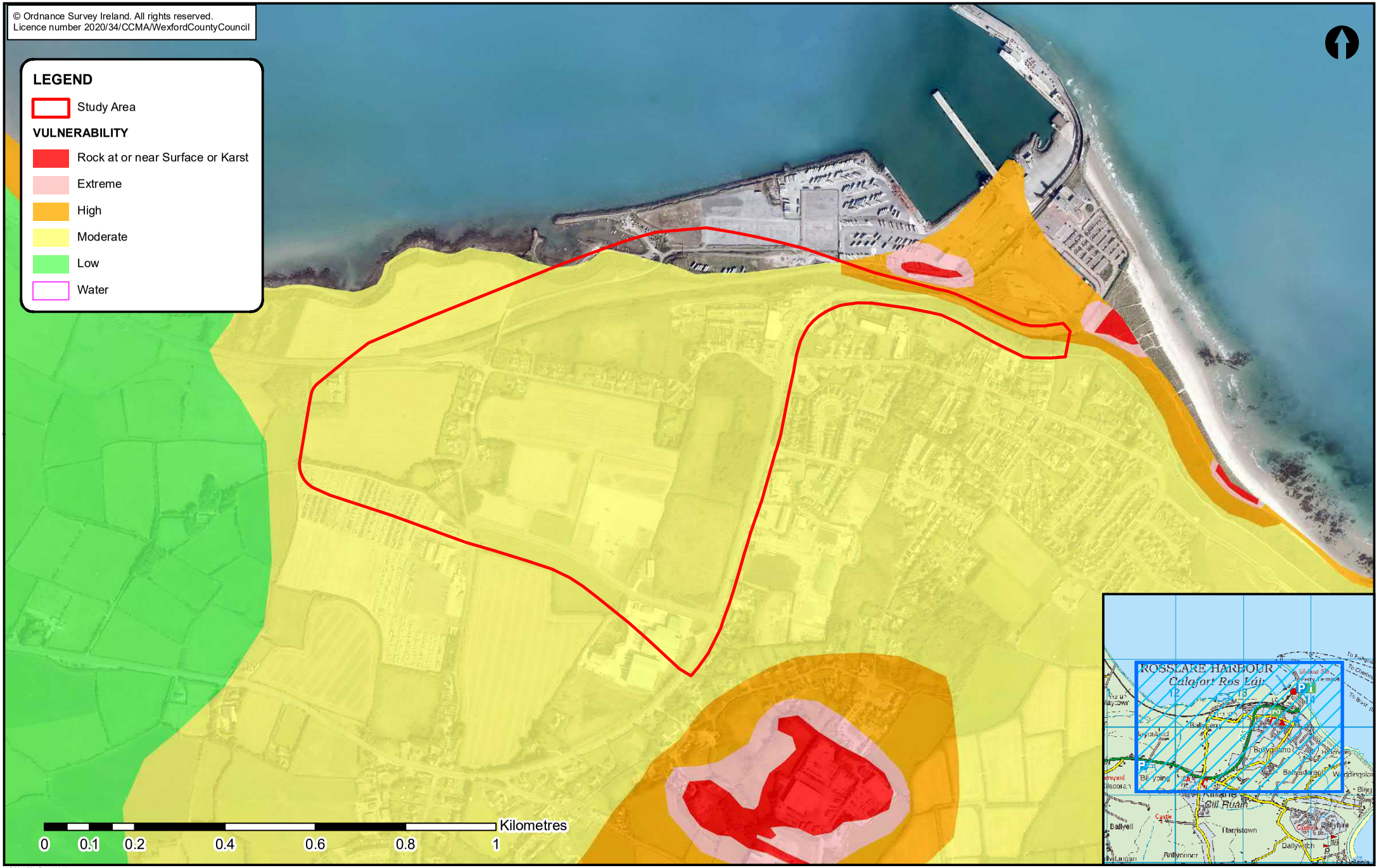
Groundwater Aquifers

Figure 3.2.4 Rev. P2



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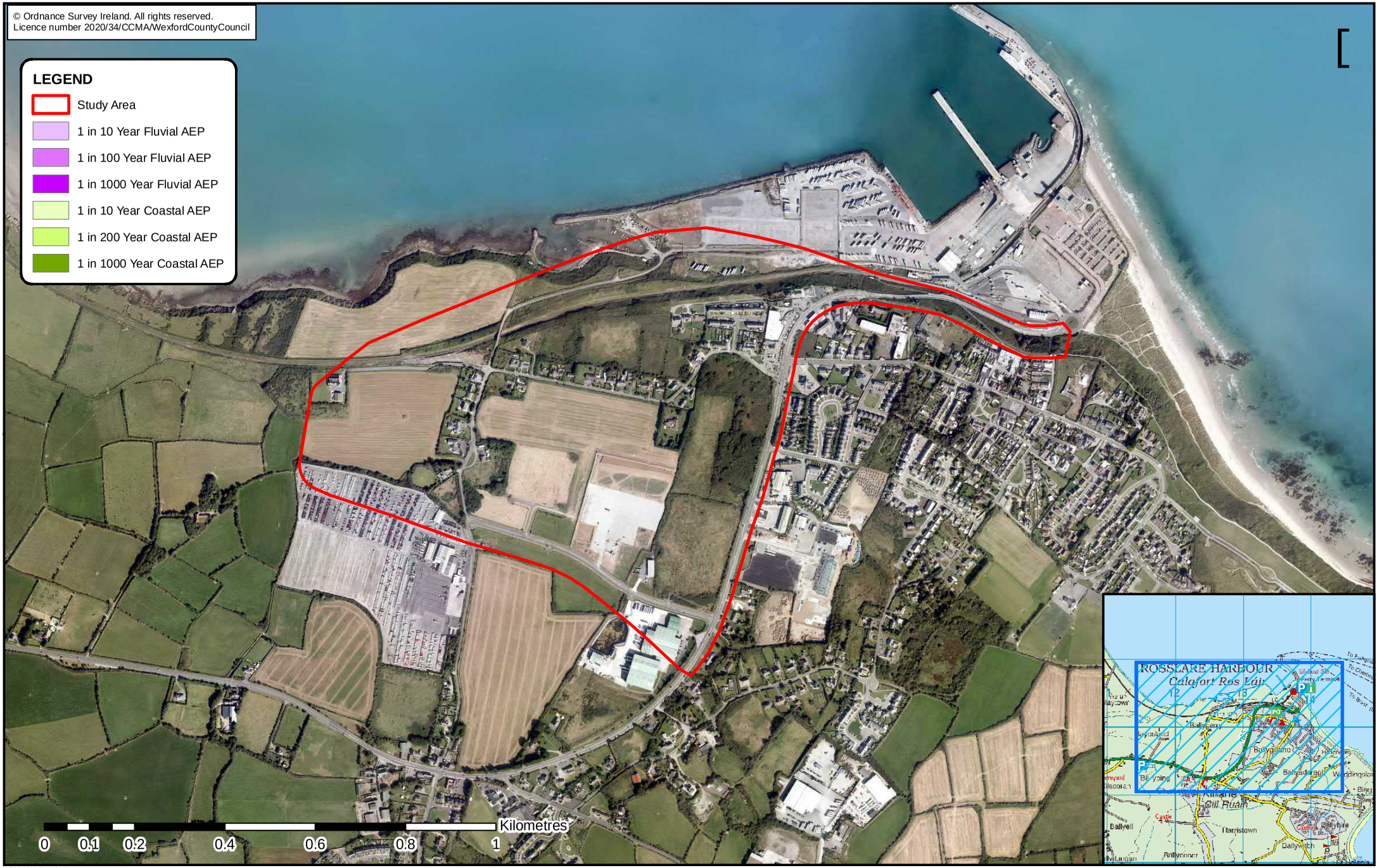
Groundwater Vulnerability

Figure 3.2.5 Rev. P2



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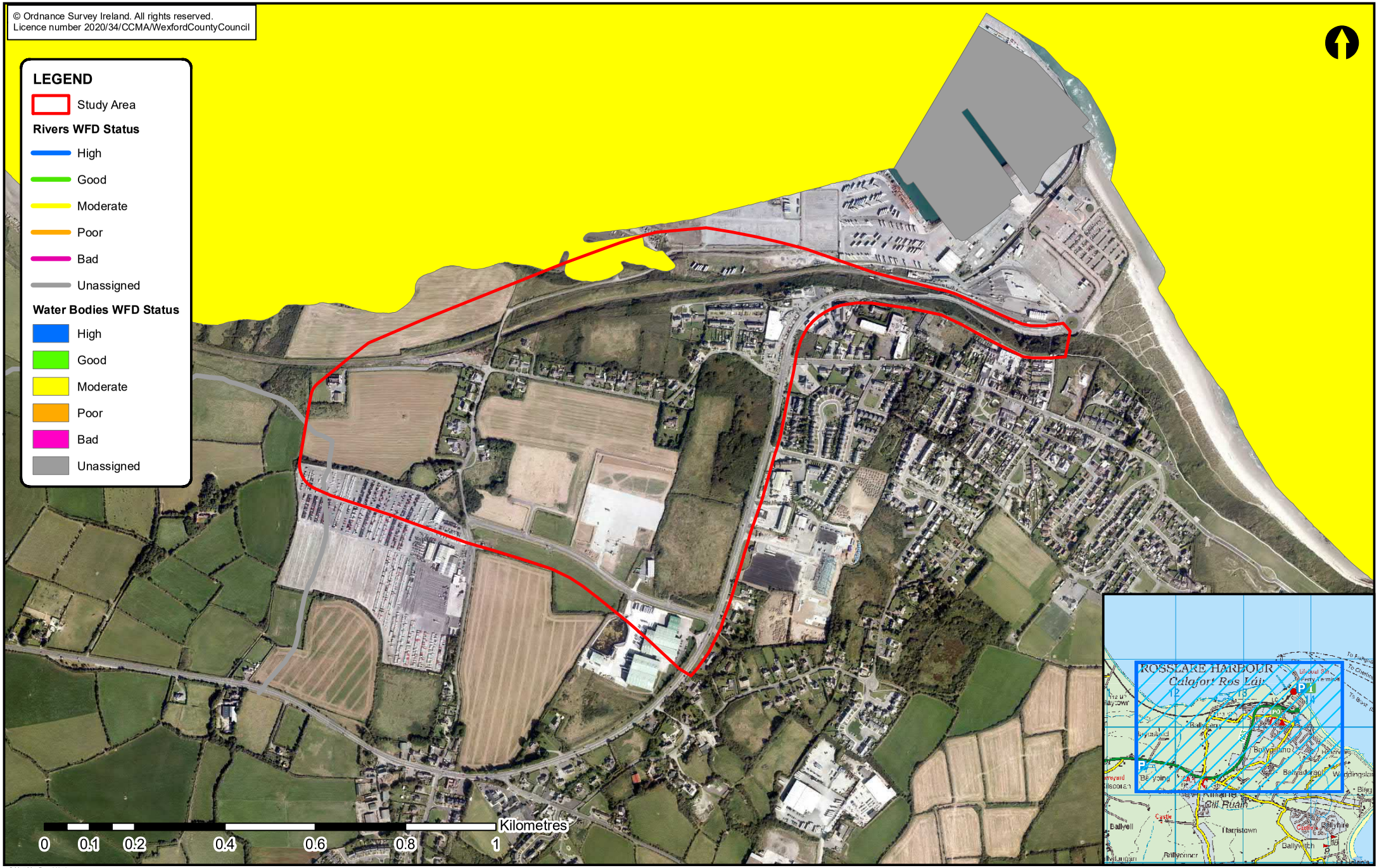
Flood Extents

Figure 3.2.6 Rev. P2



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Surface Water Features

Figure 3.3.1 Rev. P2

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Drinking Waters, Nutrient Sensitive Areas & Shellfish Areas

Figure 3.3.2 Rev. P2

LEGEND

Study Area

Landscape Character Units

Coastal

Lowlands

River Valley

Uplands

Landscapes of Greater Sensitivity

Coastal

0 0.1 0.2 0.4 0.6 0.8 1 Kilometres

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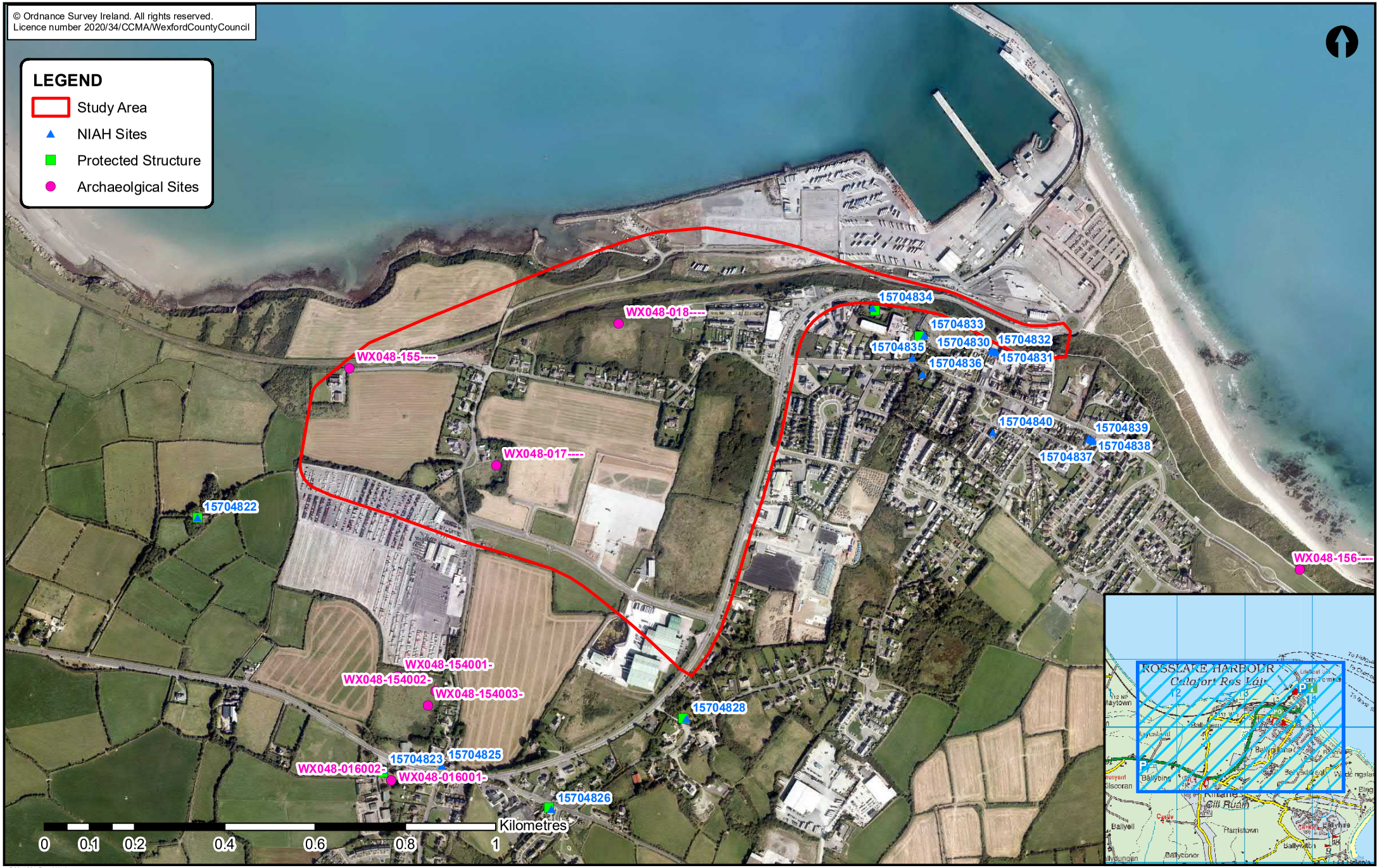
Landscape Character Units and Landscapes of Greater Sensitivity

Figure 3.4.1 Rev. P2



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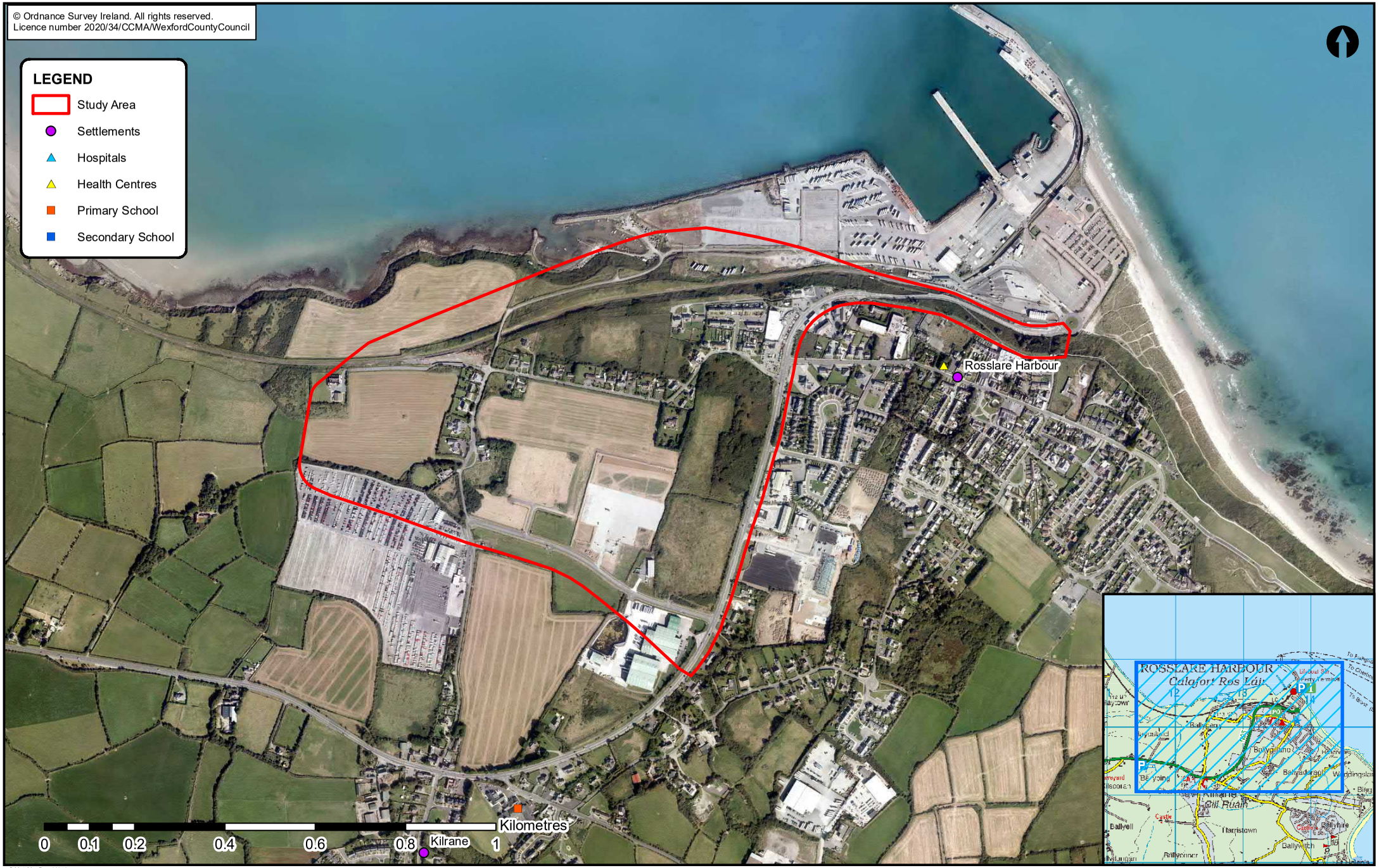
Cultural Heritage

Figure 3.5.1 Rev. P3



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Air Quality, Climate, Noise and Vibration Sensitive Receptors

Figure 3.6.1 Rev. P2