

Department of Public Expenditure and Reform

River Fealge (Clonakilty) Drainage Scheme

Environmental Impact Statement Review Recommendations to DPER

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Sherwood House, Sherwood Avenue, Taylor's Hill, Galway
Suite 11, Ground floor, The Mall, Beacon Court, Sandyford, Dublin 18

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1 INTRODUCTION

1.1 BACKGROUND

Environmental Impact Assessment (EIA) is the process by which the anticipated effects on the environment of a proposed development or project are measured. An EIS is the produce of assembled information which examines the positive and negative effects of a particular project on the environment and where necessary identifies mitigation measures to minimise this effect. The EIS is only one component of the information that may be required to aid in the decision making process of EIA. Supplementary information may be used including consultation with statutory bodies and the public, further information requests, public inquiries and technical reporting to provide a complete picture of the project and its potential effects.

Ryan Hanley have been commissioned by the Department of Public Expenditure and Reform (DPER) to provide a review of the EIS and associated documentation which will inform the Minister in carrying out an Environmental Impact Assessment of the River Fealge (Clonakilty) Drainage Scheme. As part of the review process Ryan Hanley have reviewed the EIS and associated amendments along with supplementary documentation and additional information as requested and made recommendations.

1.2 SCOPE OF SERVICES

As part of this commission Ryan Hanley have carried out the following tasks in order to provide the appropriate advice to the Minister:

- Review of EIS, Addendum to EIS, Natura Impact Statement (NIS) and supporting documentation;
- Review of contract documents, submissions and exhibition reports;
- Provision of recommendations to the Minister to accept the EIA and to make recommendations to the Minister on measures that the Minister may include as conditions to any confirmation order for the proposed scheme;
- To provide any recommendations regarding reasons for the refusal of the proposed scheme.

1.3 INFORMATION MADE AVAILABLE TO RYAN HANLEY FOR REVIEW

Information used as part of the review process included the following documentation:

- Environmental Impact Statement Vol I NTS (Dec 2014)
- Environmental Impact Statement Vol II Main body (Dec 2014)
- Environmental Impact Statement Vol III Appendices (Dec 2014)
- Final Addendum to EIS (Feb 2017)
- Natura Impact Statement (Jan 2017)
- Exhibition Report (Dec 2015)
- Observations and OPW Responses (Dec 2015)
- Works Requirements Volume A1: Conditions of Contract (Dec 2016)
- Works Requirements Volume A2 – Particular Specification (Dec 2016)
- Works Requirements Volume A3: General Specifications (Dec 2016)
- Works Requirements Volume A – Contract Drawings (Dec 2016)

1.4 REVIEW METHODOLOGY

Ryan Hanley has assessed all of the information provided to it by DPER. The information has been assessed and reviewed by our in-house experts. The review was carried out through:

- A high-level review to ensure compliance with the requirement with the EIA Directive;
- Identification of additional Information requirements;
- A detailed appraisal of the assessment of methodologies and their conclusions;
- Provision of recommendations for measures that the Minister may include as conditions to a confirmation order for the proposed scheme, where relevant.

Ryan Hanley's review assumes that the baseline assessment and/or modelling conducted as part of the EIS is accurate. The scope of the current commission does not identify a requirement to comment upon the accuracy of the data or data sources/websites/literature.

1.5 BACKGROUND TO THE PROPOSED SCHEME

JBA Consulting were appointed by the OPW to prepare an Environmental Impact Statement (EIS) of the preferred scheme for the River Fealge (Clonakilty) Drainage Scheme designed by Mott MacDonald Ireland. Mott MacDonald progressed the engineering options and design of the preferred option and a preliminary design for the scheme. The EIS states that the scheme was progressed as a result of a long history of flooding in Clonakilty Town recorded in 1960, 1963, 1996, 2005, 2008, three times during 2009 and 2010 and five times in 2012. In the majority of these cases flooding was attributed to the river and streams.

1.6 DESCRIPTION OF THE PROPOSED SCHEME

The proposed scheme for Clonakilty has a study area which combines rural, residential/commercial and maritime. Clonakilty Town comprises the built environment. The outskirts of the town and associated ribbon development extend primarily to the south west with smaller areas to the north of the town. Clonakilty Harbour forms a large water body within the study area. This scheme is based on Primary and Secondary Flood Risk Management Measures and is made up of flood defences, river regrading, culverting and channel rehabilitation. The design of the scheme consists of fluvial storage and tidal defences. New tidal flood defences will be constructed along Croppy Road, and some of the existing flood defences in town will be replaced or repaired. A storage embankment will be constructed on agricultural land just west of the Dunnes Stores Site.

2 REVIEW OF EIS AND ASSOCIATED DOCUMENTATION

2.1 INTRODUCTION

Information is provided in the form of an EIS and Addendum, along with all technical supporting documentation including the works requirements for the construction of the contract and detailed design drawings for the scheme supporting the findings and conclusions of the EIS.

Ryan Hanley's review of River Fealge (Clonakilty) Drainage Scheme EIS is set out as follows:

2.2 SUBMISSIONS FROM THE PUBLIC AND PRESCRIBED BODIES

Prescribed Bodies were contacted during the EIS process and at scoping stage as outlined within the EIS Report. Public Information Days were held on 16th October 2012 and again on the 16th of July 2013 for consideration of constraints and option selection. On the 2nd of July 2014, the preferred option was presented at a public consultation which was well advertised. Scoping of the EIS was carried out with statutory bodies prior to completion of the EIS. Exhibition stage was held from December 2014 to January 2015. An Exhibition Report was published in December 2015. This report addressed submissions and observations made as part of the consultation process. Changes to the design as a result of consultation culminated in an Addendum to EIS Report and a Revised NIS. Observations made by the Department of Arts, Heritage and the Gaeltacht were taken into consideration in the revised NIS and EIS Addendum. Observations from Inland Fisheries Ireland were also taken into consideration in the Addendum to the EIS.

The Exhibition Report details submissions made by IFI with regard to detail design of the sluice, trash screen and storm sewer outfall, commitment to consultation during detailed design has been made. Consultation with IFI is ongoing.

Recommendations: None

2.3 RECOMMENDATIONS FOR EIS AND SUPPORTING DOCUMENTATION

2.3.1 GENERAL FINDINGS

The EIS and Addendum Report have been reviewed. The reports have been laid out in accordance with EC (Environmental Impact Assessment) Regulations 1989 to 2001, and the recommendations of the Environmental Protection Agency's (EPA) *Draft Guidelines on the Information to be contained in Environmental Impact Statements (2002)* and *Advice Notes on Current Practice (on the preparation of Environmental Impact Statements)* (EPA, 1998) and in accordance Schedule 6 of the Planning and Development Regulation 2001, relating to the information to be contained in an EIS. A suite of mitigation measures has been provided throughout the EIS, EIS Addendum, NIS, Exhibition Report and supporting documentation.

Recommendations: The OPW shall make available to project staff and contractors, a 'Schedule of Environmental Commitments' containing all proposed mitigation measures outlined in the various documents, which have been submitted as part of the EIS, Amendment of EIS, NIS, responses to consultations (Public and Statutory) and any other commitment made as part of the review process. Measures outlined in the 'Schedule Environmental of Commitments' will ensure that they are stipulated as conditions in replacement of the recommendations outlined in the aforementioned documents.

Reason: To protect humans and the environment, including Natura 2000 sites.

2.3.2 CONSIDERATION OF ALTERNATIVES

In order to ensure the best possible design and ensure avoidance of environmental impacts as much as is feasible a consideration of alternatives is made prior to the preparation of the EIS. Schedule 6, Part 1 (d) of the Planning and Development Regulations 2001 – 2015 identify the requirements for consideration of alternatives. A summary of the alternatives is discussed in the EIS and is considered to comply with the regulatory requirements. The proposed development examined a number of alternatives by a Preliminary Option Screening Process and subsequently, Multi Criteria Analysis. The assessment allowed the designer to deliver the preferred option resulting in the proposed development which met with the objectives of the project with consideration of the environmental effects.

Recommendations: None

2.3.3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The proposed development is described in detail in Chapter 6 of the EIS and again in the EIS addendum where changes have been made. Further information is available as part of the Exhibition Reports and detailed design drawings submitted as part of the Works Requirements. The information provided is largely sufficient in detail. No deficiencies are identified in the design and no further design recommendations are made.

Recommendations: None

2.3.4 OUTLINE CONSTRUCTION METHODOLOGY

A summary of the proposed construction methodology is provided in Chapter 7 of the EIS and the addendum. The Construction methodology has identified the construction duration and the need for access roads. Potential locations for site compounds have been considered.

Recommendations: None

2.3.5 WATER AND HYDROLOGY

EIS Chapter 8 considers the applicable legislation relevant to the protection of water and hydrology and the potential impact due to construction and operation of the proposal. There is a risk to water quality as a result of the proposed construction phase of the development. The assessment and mitigation are considered appropriate for the scheme and in line with current legislation and guidance.

Recommendations: None

2.3.6 FLORA AND FAUNA

The methodology outlined and assessment of impact on Flora and Fauna is generally satisfactory and in line with current regulations and guidance. Submissions/Observations from Inland Fisheries Ireland include the requirement that sluices, trash screen and storm sewer outfall will be designed and constructed in a manner so that it does not create an impediment to fish passage or impact negatively on fisheries. Additionally, IFI expressed concerns as to water quality during operation and made a request for conditions regarding

monitoring. The observations/submission by IFI have been addressed in the Exhibition Report with additional mitigation and design measures proposed. These conditions and any additional conditions outlined by IFI will be included within the 'Schedule of Environmental Commitments'.

Submissions/Observations from the Department of Arts, Heritage and the Gaeltacht have been addressed and included as mitigation within the revised EIS. The conditions outlined within the (revised) NIS, EIS, EIS Amendment and Exhibition Report will be included within the Schedule of Environmental Commitments which will include conditions for the scheme.

Section 9.7 of the EIS identifies possible enhancement measures for the scheme that provide opportunities that could be pursued as part of the project. These measures are not confirmed as necessary mitigation however they are considered beneficial to the environment. For this purpose, it is proposed that the following recommendations be included in the Schedule of Environmental Commitments:

- Construction of an artificial Otter holt in areas around the new flood embankment to provide an additional resting place on the River Fealge.
- Bird and bat boxes will be installed around the works area to provide additional nesting and roosting sites.
- Although any removal of hedgerow is proposed to be mitigated with compensatory planting of hedgerows, additional enhancements will also be made to the existing hedgerows. In appropriate areas hedgerows will be improved, for example by planting up any gaps with native species.
- Street and car park lighting between Rossa Street Bridge and Tobin's Bridge will be reduced in intensity and redirected away from the Fealge River to minimise light disturbance impacts to bats.

2.3.7 HYDROMORPHOLOGY

Chapter 10 considers the impact of the scheme on the hydromorphological condition of water courses. The EIS addresses the impact on hydromorphology with consideration of potential impact on mudflats and sandflats within Clonakilty Bay. Subsequent to the EIS Mott MacDonald Ireland undertook additional hydraulic modelling of the scheme specifically looking at the impacts of the scheme in the SAC. The Natura Impact Statement was revised to reflect this assessment and has determined that there will be no significant impact on the hydromorphology and therefore the qualifying interests of the SAC. The assessment and mitigation within the EIS, EIS Addendum and NIS are considered appropriate for the scheme and in line with current legislation and guidance.

Recommendations: None

2.3.8 SOILS AND GEOLOGY

Chapter 11 considers the potential impact due to construction and operations of the proposal on soils and geology. There is no impact on economic geology or heritage geology sites. The assessment and mitigation are considered appropriate for the scheme and in line with current legislation and guidance.

Recommendations: None

2.3.9 RECOMMENDATIONS FOR COMMUNITY AND SOCIO ECONOMICS

In general, assessment of impacts on community and socio economics is satisfactory. There will be a short term moderate negative impact on the local community during construction phase while in the long term it is considered that there will be a significant positive impact as a result of reduced flood risk. Short term impacts will be minimised by the formulation of a Construction and Environmental Operating Plan and a Traffic Management Plan which will be approved by the OPW and reviewed in consultation with the HSE as identified within the Exhibition Report.

Recommendations: None

2.3.10 TRAFFIC / TRANSPORTATION AND ROADS IMPACTS

The methodology outlined and assessment of impact on Traffic and Transportation is generally satisfactory and in line with current best practice. Impacts on traffic, transportation and roads been mitigated against as much as possible.

Recommendations: A Traffic Management Plan where traffic, transportation and road interactions occur with the construction of the scheme will be provided by the contractor in consultation with the OPW and Cork County Council.

Reason: In the interests of health and safety and community.

2.3.11 AIR QUALITY AND CLIMATE

The EIS and associated documentation sufficiently addresses air and quality impact. Impact prediction is largely limited to construction phase. A Dust Minimisation Plan with a suite of appropriate measures as identified with the EIS report will minimise the impact from dust emissions. A Traffic Management Plan will minimise emissions from construction traffic as identified within the EIS.

Recommendations: None

2.3.12 ARCHAEOLOGICAL AND CULTURAL HERITAGE

The methodology outlined and assessment of impact on Cultural Heritage is generally satisfactory and in line with current best practice and guidance. Subsequent to the EIS publication, Rubicon Heritage Services carried out test trench excavations of a fluacht fia in the flood study area, a survey of the Historic Port area and the Old Timoleague Road and underwater archaeology surveys of the River Fealge and estuary. The culmination of these assessments has been included within the Amended EIS. Mitigation measures have been provided for in the EIS and Amended EIS which will be included in the 'Schedule of Environmental Commitments'.

Recommendations: None

2.3.13 LANDSCAPE AND VISUAL

The methodology outlined and assessment of impact on Landscape and Visual is generally satisfactory and in line with current best practice and guidance. Mitigation measures have been outlined in Chapter 16 and

Chapter 15 (with regards to cultural heritage impact) of the EIS and Amended EIS. Cork County Council will be consulted with regards to detailed design and finishes of flood protection features within Clonakilty.

Recommendations: All hard and soft landscaped areas shall be managed for a minimum of 12 months post construction, seeding or planting that fails or is considered defective within this period shall be replaced / made good.

Reason: For the protection of visual amenity

2.3.14 NOISE

The EIS and associated documentation sufficiently addresses Noise and Vibration impact. Impact prediction is largely limited to construction phase and is not predicted to exceed limits set by the NRA assessment guideline criteria. It is also proposed to carry out noise monitoring during construction; where noise levels are exceeded further mitigation will be employed. Vibration levels are predicted to be below thresholds set. Vibration monitoring will be carried out.

Recommendations: None

2.3.15 MATERIAL ASSETS

The methodology outlined and assessment of impact on Material Assets is generally satisfactory and in line with current best practice and guidance. Land owners directly impacted by the scheme have been consulted with directly. Exhibition Reports detail all submissions made by land owners during the consultation phase; where possible, amendments to the design have been made to minimise the impact on land owners and are included within the EIS Addendum Report. Impact on utilities, roads and waste have been assessed and mitigation measures proposed.

Recommendations: None

2.3.16 INTERACTIONS

The interrelationship between the aforementioned factors has been assessed as part of the EIS and EIS Addendum. No additional mitigation measures are proposed as a result of this review in consideration of interactions.

Recommendations: None

2.4 NATURA IMPACT STATEMENT

A Natura Impact Statement has been carried out and presented. The report is carried out in line with the requirements of Article 6(3) of the EU habitats Directive (Directive 92/43/EEC) and the Planning and Development Regulations 2001 – 2015. Mitigation measures have been outlined within the Natura Impact Statement to ensure the protection of European Sites, namely Clonakilty Bay SAC and SPA. The NIS concluded that with avoidance and mitigation measures implemented as proposed, the scheme will not have a significant adverse impact on Natura 2000 sites. The mitigation measures outlined in this report will be included in the Schedule of Environmental Commitments and make up part of the Scheme Confirmation.

3 SUMMARY AND CONCLUSION

Having regard to the EIS, EIS Addendum, associated technical reports, detailed design and Works Contracts and considering the Environmental Impact Assessment of the proposed River Fealge (Clonakilty) Drainage Scheme, Ryan Hanley have made an assessment of the reports and are satisfied that the assessment is adequate and provides mitigation measures to ensure minimisation of environmental impact. The following recommendations have been identified in this report and are summarized below as recommendations to the Minister to include as conditions to a Confirmation Order to the proposed scheme should he see fit:

- The OPW shall make available to project staff and contractors, a 'Schedule of Environmental Commitments' containing all proposed mitigation measures outlined in the various documents, which have been submitted as part of the EIS, Amended EIS, NIS, responses to consultations (Public and Statutory) and any other recommendation made as part of the review process. Measures outlined in the 'Schedule of Environmental Commitments' will ensure that they are stipulated as conditions in replacement of the recommendations outlined in the aforementioned documents.

Reason: To protect humans and the environment, including Natura 2000 sites.

- Section 9.7 of the EIS identifies possible enhancement measures for the scheme that provide opportunities that could be pursued as part of the project. These measures will be carried out as part of the scheme construction and design and will be included in the Schedule of Environmental Commitments for the scheme which make up the scheme confirmation conditions arising out of the EIA process. The following enhancement measures are included in the EIS:
 - Construction of an artificial Otter holt in areas around the new flood embankment to provide an additional resting place on the River Fealge.
 - Bird and bat boxes will be installed around the works area to provide additional nesting and roosting sites.
 - Although any removal of hedgerow is proposed to be mitigated with compensatory planting of hedgerows, additional enhancements will also be made to the existing hedgerows. In appropriate areas hedgerows will be improved, for example by planting up any gaps with native species.
 - Street and car park lighting between Rossa Street Bridge and Tobin's Bridge will be reduced in intensity and redirected away from the Fealge River to minimise light disturbance impacts to bats.

Reason: For the Protection and Enhancement of Natural Heritage

- A Traffic Management Plan where traffic, transportation and road interactions occur with the construction of the scheme will be provided by the contractor in consultation with the OPW and Cork County Council.

Reason: In the interests of health and safety and community

- All hard and soft landscaped areas shall be managed for a minimum of 12 months post construction, seeding or planting that fails or is considered defective within this period shall be replaced / made good.

Reason: For the protection of visual amenity.