



**Clifton Scannell Emerson**  
Associates

## **Addendum to EIAR Chapter 7 Hydrology Suir Island Infrastructure Links**



Comhairle Contae Thiobraid Árann  
Tipperary County Council

Civil  
Engineering

Structural  
Engineering

Transport  
Engineering

Environmental  
Engineering

Project  
Management

Health  
and Safety

CONSULTING ENGINEERS





Clifton Scannell Emerson Associates Limited,  
Consulting Engineers, 3rd Floor, The Highline, Bakers Point, Pottery Road,  
Dun Laoghaire, Co. Dublin, A96 KW29  
T. +353 1 2885006 F. +353 1 2833466 E. info@csea.ie W. www.csea.ie

## Document Control Sheet

Project Name: Suir Island Infrastructure Links  
Project Number: 20\_071  
Report Title: Addendum to EIAR – Chapter 7 Hydrology  
Filename: RPT-20\_071-035A

<b>Issue No.</b>	<b>Issue Status</b>	<b>Date</b>	<b>Prepared by</b>	<b>Checked by</b>
0	Issue for response to ABP RFI	25/09/2024	TH (AWN)	LP

---

## Table of Revised Contents

Document Control Sheet .....	2
Table of Revised Contents .....	3
1 Introduction to Addendum .....	4
Revised Section(s) .....	4
7.8 Potential Impact Assessment .....	4
7.11 Mitigation and Monitoring Measures .....	5
7.11.1 Construction Phase .....	5

## 1 Introduction to Addendum

Tipperary County Council submitted the Planning Application for the proposed Suir Island Infrastructure Links development on 25<sup>th</sup> September 2023. An Bord Pleanála issued a Request for Further Information (RFI) on 9<sup>th</sup> July 2024 in accordance with Section 51(4) of the Roads Act 1993, as amended.

The following RFI Item, which requests that the developer provides updated information relating to Hydrology:

### 3. Environmental Impact Assessment (EIAR)

#### d) Hydrology (Chapter 7)

(i) Consideration should be given to the potential impacts arising from instream works, and from instream works arising in periods of increased base flow and flooding. In the event of potential impacts being identified, appropriate mitigation measures addressing same are to be outlined, where applicable.

RFI No. 5 stipulates that the response documentation should be in addendum format. Thus, this document sets out to address the necessary changes which pertains to EIAR Chapter 7 Hydrology. This addendum includes the following revisions or additions as shown in red text:

- Revision of Section 7.8 Potential Impact Assessment
- Revision of Section 7.11 Mitigation and Monitoring Measures

### Revised Section(s)

In response to Items 3(d)(i) of the An Bord Pleanála further information request which states:

*Consideration should be given to the potential impacts arising from instream works, and from instream works arising in periods of increased base flow and flooding. In the event of potential impacts being identified, appropriate mitigation measures addressing same are to be outlined, where applicable.*

Construction impact (Erosion and Sediment Transport) is assessed in the EIAR Chapter 7 Hydrology in Section 7.9.1. This section considered the potential for erosion and sediment transport during bridge foundation works. The primary impact was noted as “*localised clearance and removal of topsoil which increase the erosion potential of the area during heavy rainfall and flooding events during which sediment can be transferred to the river by overland flow*”

The following outlines the additions to Chapter 7 Hydrology specifically in relation to the installation works for the Piers and Abutments in the back water channel.

### 7.8 Potential Impact Assessment

There are no planned works within the main river channel i.e. the extent of the River Suir that conveys flows during normal flow conditions. The installation of Pier 01, Pier 02 and Pier 03 as well as abutments A01 and A04 require temporary works within the floodplains (ref: CSEA Drawing no. 20\_071 - CSE - GEN - XX - DR - C - 2460 & 2461). The closest point of construction works to the riverbanks will be at Pier 01, Pier 02 and Pier 03 as well as abutments A01 and A04. Piers 01, 02 and 03 are located 2.4m; 6.5m; and 2.4m respectively from the nearest point of the river bankside Abutment A01 is located 5.5m from the riverbank on the Quay, whilst Abutment A04 is located 10.5m from the riverbank at the verge of Raheen Road.

During the installation and decommissioning of the box culvert and sheet piling there will be disturbance to the muddy substrate of the floodplain. In the event that installation works coincide with a flood event

the potential will exist for any muddy substrate disturbed during the installation to become entrained and suspended in water flowing through the floodplain and mobilised downstream. It should be noted that the water will have elevated suspended solids during high flood condition even without these localised construction works.

The potentially polluting materials that will be associated with the construction of Piers and Abutments will be restricted to exposed soils and subsoils and the release of excess sediment material to flood waters. No hydrocarbons, wet cement, grout, or other potentially contaminating fluids will be contained within the working areas associated with these elements of the project leading up to and during potential flood events.

As such, there will be no overall change to the water quality downstream as a result of release of localised silt laden water should flood water erode loose sediment above the sheet pile levels.

The potential impact on surface water without mitigation is considered to be *Temporary and Imperceptible (An impact capable of measurement but without noticeable consequences)* to *Not Significant (An effect which causes noticeable changes in the character of the environment but without noticeable consequences)*.

## **7.11 Mitigation and Monitoring Measures**

### **7.11.1 Construction Phase**

All works associated with the installation of the pre-cast box culvert and associated sheet piling will be completed during periods of normal or ebb flow conditions when the floodplain does not contain flowing water. In order to minimise the risk of the release of excess sediment from working areas associated with these elements of the project the following approach will be implemented for the construction phase:

- As highlighted in the EIAR Chapter 7 and associated hydraulic modelling report, only one pier shall be constructed at one time, thus minimising the reduction in flow area in the floodplain and reduces the potential for adverse effects on the environment; In addition, this will minimise the footprint of the construction phase working area that will be susceptible to flooding in the event of a flood.
- All plant, personnel and equipment shall be removed from these works areas at the end of each working day;
- The contractor shall keep record of all rainfall forecasts to ensure works are completed, plant and equipment removed, and the works safeguarded 2-days prior to any major rainfall forecasts in the catchment area. Works will only be commenced during times when high rainfall events that could trigger flooding are not forecast and will only resume after flood waters recede.
- In the event that a high rainfall event is forecast during the working period, works will be discontinued and the ground within the working areas will be compacted to minimise the potential for mobilisation of sediment in the event of flooding and contact between the working area and flood waters.
- The contractor shall liaise with the Clonmel Flood Defence Scheme and Early Warning System personnel on all major rainfall events;
- Method Statements and Procedures shall be compiled prior to the commencement of the works which shall be followed for each flood warning event;

- 
- All formwork for the pier construction shall be so designed to withstand any flood event up to the 1% AEP;
  - Standard formwork and scaffolding shall not be permitted within the floodplain works;
  - No concrete shall be cast if the forecast for the next 7-days would exceed or result in a 50% AEP flood event, thus allowing concrete to cure sufficiently;
  - No refuelling shall be permitted within the floodplain area;
  - Dewatering of working areas shall strictly be carried out in accordance with Section 5.8 of the OCEMP (Appendix 7.1 of EIAR Chapter 7).
  - Sheet piling and all formwork shall be inspected on regular basis by temporary works designers to ensure works are secure prior to forecasted rainfall events.

The potential impact from instream works and from instream works arising in periods of increased base flow and flooding on surface water with mitigation is considered to be *temporary* and *imperceptible*.

**Clifton Scannell Emerson Associates Limited**, Civil & Structural Consulting Engineers

3rd Floor, The Highline, Bakers Point, Pottery Road, Dun Laoghaire, Co. Dublin, A96 KW29

T. +353 1 288 5006 F. +353 1 283 3466 E. [info@csea.ie](mailto:info@csea.ie) W. [www.csea.ie](http://www.csea.ie)

