

# Kilmannock Battery Energy Storage Ltd

## Site Specific Flood Risk Assessment

Great Island, Kilmokea, Co. Wexford



**December 2023**



# Site Specific Flood Risk Assessment

Client: Kilmannock Battery Storage Ltd

Location: Great Island, Kilmokea, Co. Wexford

Date: 13<sup>th</sup> December 2023

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## 1. Introduction

IE Consulting was requested by Entrust Planning and Environmental, on behalf of Kilmannock Battery Storage Ltd, to undertake a Site Specific Flood Risk Assessment (SSFRA) for a proposed development at Great Island, Limokea, Co. Wexford.

The development as proposed comprises the construction of an electrical infrastructure installation and associated underground grid connection (UGC) on lands within the townland of Great Island measuring approximately 2.58Ha./25812 square metres in overall area. The installation would consist of an 110kV tailfed substation and underground grid connection measuring approximately 838m in overall length. The 110kV substation would consist of an 110kV transformer; house transformer; disconnect, individual current and voltage transformers, combined current/voltage transformer, surge arrestors; circuit breakers and cable sealing end; a blastwall measuring 8.00m in overall height; 4no. lightning masts measuring 18.00m in overall height; palisade fencing measuring 2.60m in overall height; pole-mounted security cameras and lamp posts. An Eirgrid substation building with an overall footprint of approximately 180.00sqm and overall height of 4.20m would be located at the western end of the substation area. An IPP substation with an overall footprint of 132sqm and height of overall 4.20m would be located at the eastern end. The typical UGC installation would consist of standard ESB ducting details of the following 1no. trench (0.82m wide; 1.31m deep) measuring approximately 838m in overall length to carry 3no. 160mm power ducts and 2no. communication ducts and an ECC duct, connecting the proposed substation to an existing 110kV Eirgrid substation at Great Island. The typical trefoil trench will need to be adapted to a flat formation to accommodate for any service crossings encountered along the route. A typical width of trench for a flat formation trench would be approx. 1.60m with varying depths. A temporary construction compound would be constructed within the site boundary for construction phase of the development, after which it would be removed.

The purpose of this SSFRA is to assess the potential flood risk to the site of the proposed development and to assess the impact that the development as proposed may or may not have on the hydrological regime of the area.

Quoted ground levels or estimated flood levels relate to Ordnance Datum (Malin) unless stated otherwise.

This flood risk assessment study has been undertaken in consideration of the following guidance document:

*'The Planning System and Flood Risk Management – Guidelines for Planning Authorities' DOEHLG 2009.*

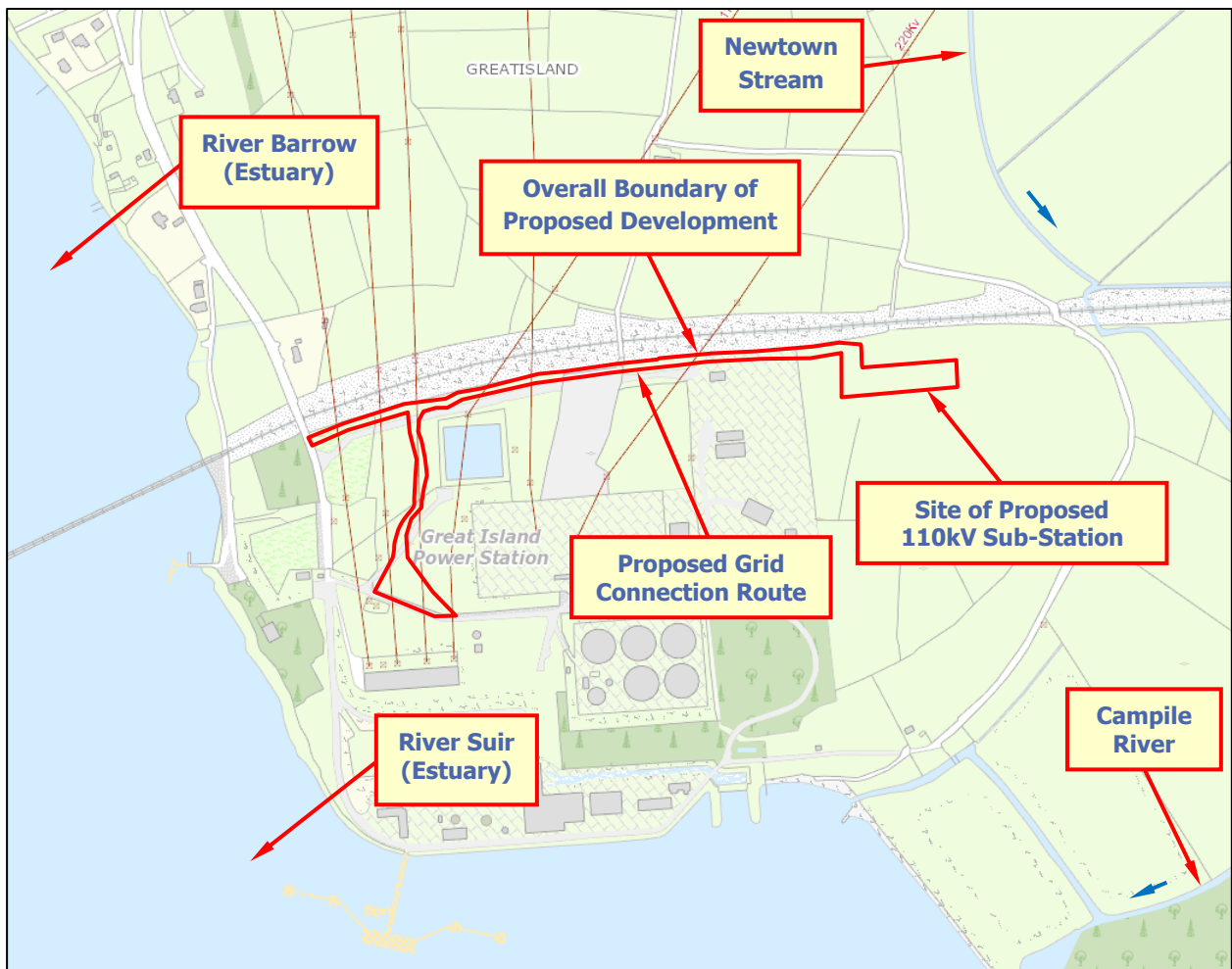
## 2. Proposed Site Description

### 2.1. General

The site of the proposed development is located at Great Island, Co. Wexford.

The proposed development site is bounded to the north by an area of undeveloped land and the Rosslare to Wexford railway line, to the east and south-east by agricultural lands and to the south-west and west by the Great Island Power Station facility site. The total area of the site of the proposed development is approximately 2.58 hectares.

The location of the site of the proposed development is illustrated on *Figure 1* below and is shown on *Drawing Number IE2816-001-C, Appendix A*.



**Figure 1 – Site Location**

## 2.2. Existing Topography Levels at Site

The site of the proposed 110kV sub-station site slopes moderately in a south-west to north-east direction at an approximate gradient of 6.73% (1 in 14.85).

Existing ground elevations range from approximately 21.86m OD (Malin) at the south-western corner of the site to 15.00m OD (Malin) adjacent to the eastern boundary of the site.

## 2.3. Local Hydrology, Landuse & Existing Drainage

The most immediate hydrological features in the general vicinity of the proposed development site are the River Barrow Estuary, which flows in a north to south direction approximately 253m beyond the western boundary of the site, the River Suir Estuary, which flows in a north to south direction approximately 255m beyond the western boundary of the site, the Campile River, which flows in a east to west direction approximately 914m beyond the southern boundary of the site and the Newtown Stream, which at its closest point flows in a north to south direction approximately 132m beyond the eastern boundary of the site.

The catchment area of the River Barrow Estuary was delineated and found to be approximately 3,025km<sup>2</sup> to a point downstream of the site. An assessment of the River Barrow Estuary upstream catchment area indicates that the catchment is predominantly rural in nature with the urban fraction in the upstream catchment area accounting for 1.6% of the total catchment area.

The catchment area of the River Suir Estuary was delineated and found to be approximately 3,520km<sup>2</sup> to a point downstream of the site. An assessment of the River Suir Estuary upstream catchment area indicates that the catchment is predominantly rural in nature with the urban fraction in the upstream catchment area accounting for 0.8% of the total catchment area.

The catchment area of the Campile River was delineated and found to be approximately 28.213km<sup>2</sup> to a point downstream of the site. An assessment of the Campile River upstream catchment area indicates that the catchment is predominantly rural in nature with the urban fraction in the upstream catchment area accounting for 0.1% of the total catchment area.

The catchment area of the Newtown Stream was delineated and found to be approximately 7.173km<sup>2</sup> to a point downstream of the site. An assessment of the Newtown Stream upstream catchment area indicates that the catchment is predominantly rural in nature with the urban fraction in the upstream catchment area accounting for 0.1% of the total catchment area.

### 3. Initial Flood Risk Assessment

The flood risk assessment for the proposed development site is undertaken in three principal stages, these being 'Step 1 – Screening', 'Step 2 – Scoping' and 'Step 3 – Assessing'.

#### 3.1. Possible Flooding Mechanisms

Table 1 below summarises the possible flooding mechanisms in consideration of the site:

Source/Pathway	Significant?	Comment/Reason
Tidal/Coastal	Yes	The River Barrow, River Suir and Campile River are tidally influenced at the location of the site.
Fluvial	Yes	The River Barrow, River Suir and Campile River are located 253m, 255m and 914m beyond the western, western and southern site boundaries respectively. At its closest point the Newtown Stream is located approximately 132m beyond the eastern boundary of the site.
Pluvial (urban drainage)	No	There is no significant or major urban drainage or water supply infrastructure located at or in the immediate vicinity of the site.
Pluvial (overland flow)	No	The site is not surrounded by significantly elevated lands and does not provide an important surface water discharge point to adjacent lands.
Blockage	No	There are no significant or restrictive hydraulic structures located within or immediately adjacent to the boundary of the site.
Groundwater	No	There are no significant springs or groundwater discharges mapped or recorded in the immediate vicinity of the site.

**Table 1: Flooding Mechanisms**

The primary potential flood risk to the proposed development site can be attributed to an extreme fluvial and/or tidal/coastal flood event in the River Barrow Estuary and/or the River Suir Estuary and/or the Campile River located 253m, 255m and 914m beyond the western, western and southern boundaries of the site respectively and/or to an extreme fluvial flood event in the Newtown Stream located 132m beyond the eastern boundary of the site.

In accordance with 'The Planning System and Flood Risk Management – Guidelines for Planning Authorities - DOEHLG 2009' the potential flood risk to the site of the proposed development is analysed in the subsequent 'Screening Assessment' and "Scoping Assessment" section of this study report.

## 4. Screening Assessment

The purpose of the screening assessment is to establish the level of flooding risk that may or may not exist for a particular site and to collate and assess existing current or historical information and data which may indicate the level or extent of any flood risk.

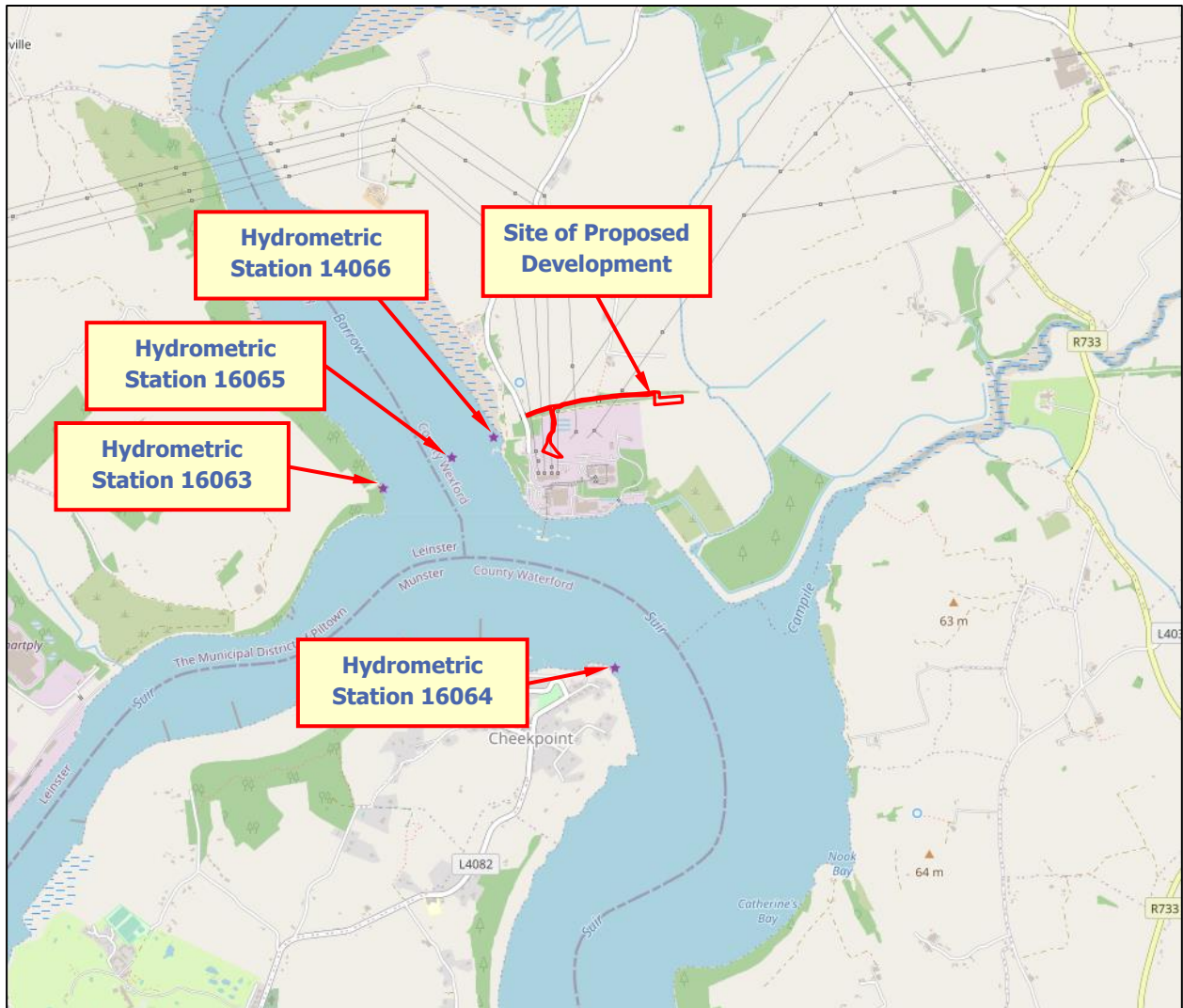
If there is a potential flood risk issue then the flood risk assessment procedure should move to 'Step 2 – Scoping Assessment' or if no potential flood risk is identified from the screening stage then the overall flood risk assessment can end at 'Step 1'.

The following information and data was collated as part of the flood risk screening assessment for the proposed development site.

### 4.1. OPW/EPA/Local Authority Hydrometric Data

Existing sources of OPW, EPA and local authority hydrometric data were investigated. As illustrated in *Figure 2* below, this assessment has determined that there are three hydrometric gauging stations located on the River Barrow and one hydrometric gauging station located on the River Suir in the general vicinity of the proposed development site.





**Figure 2 - Hydrometric Gauges**

Station 16063 (Barrow Bridge D/S), located on the River Suir Estuary, is entered into the Register of Hydrometric Stations in Ireland as an inactive hydrometric recorder station with water level only data recorded for hydrometric years 1950 to 2015.

Station 16065 (Great Island), located on the River Suir Estuary, is entered into the Register of Hydrometric Stations in Ireland as an inactive hydrometric recorder station with water level only data recorded for hydrometric years 1950 to 2015.

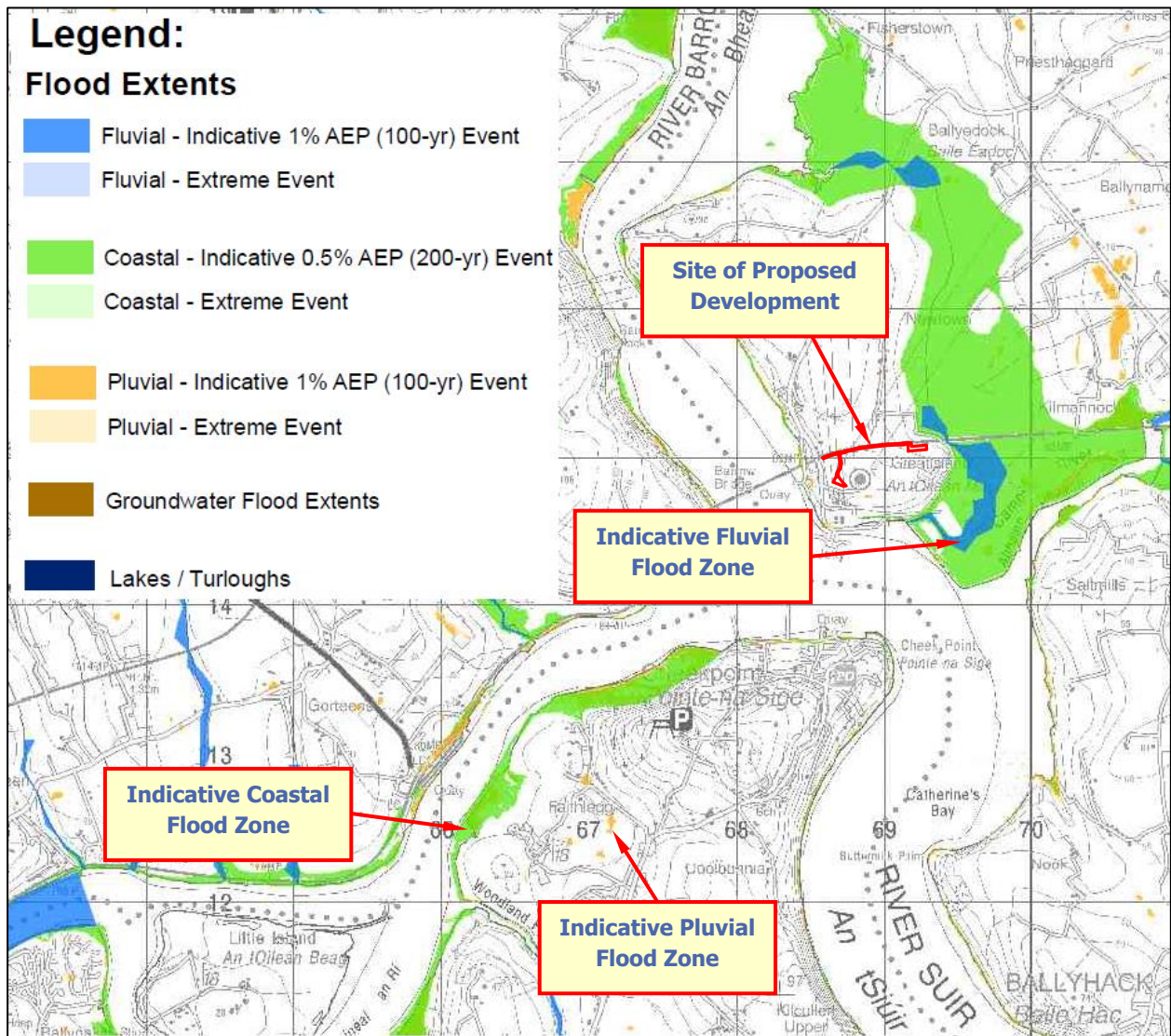
Station 14066 (Barrow Bridge U/S), located on the River Barrow Estuary, is entered into the Register of Hydrometric Stations in Ireland as an inactive hydrometric recorder station with water level only data recorded for hydrometric years 1950 to 2015.

Station 16064 (Cheek Point), located on the River Suir Estuary, is entered into the Register of Hydrometric Stations in Ireland as an inactive hydrometric recorder station with water level only data recorded for hydrometric years 1950 to 2015.

## 4.2. OPW PFRA Indicative Flood Mapping

Preliminary Flood Risk Assessment (PFRA) Mapping for Ireland was produced by the OPW in 2011. OPW PFRA flood map number 2019/MAP/89/A illustrates indicative flood zones within this area of Co. Wexford.

Figure 3 below illustrates an extract from the above indicative flood map in the vicinity of the site of the proposed development.



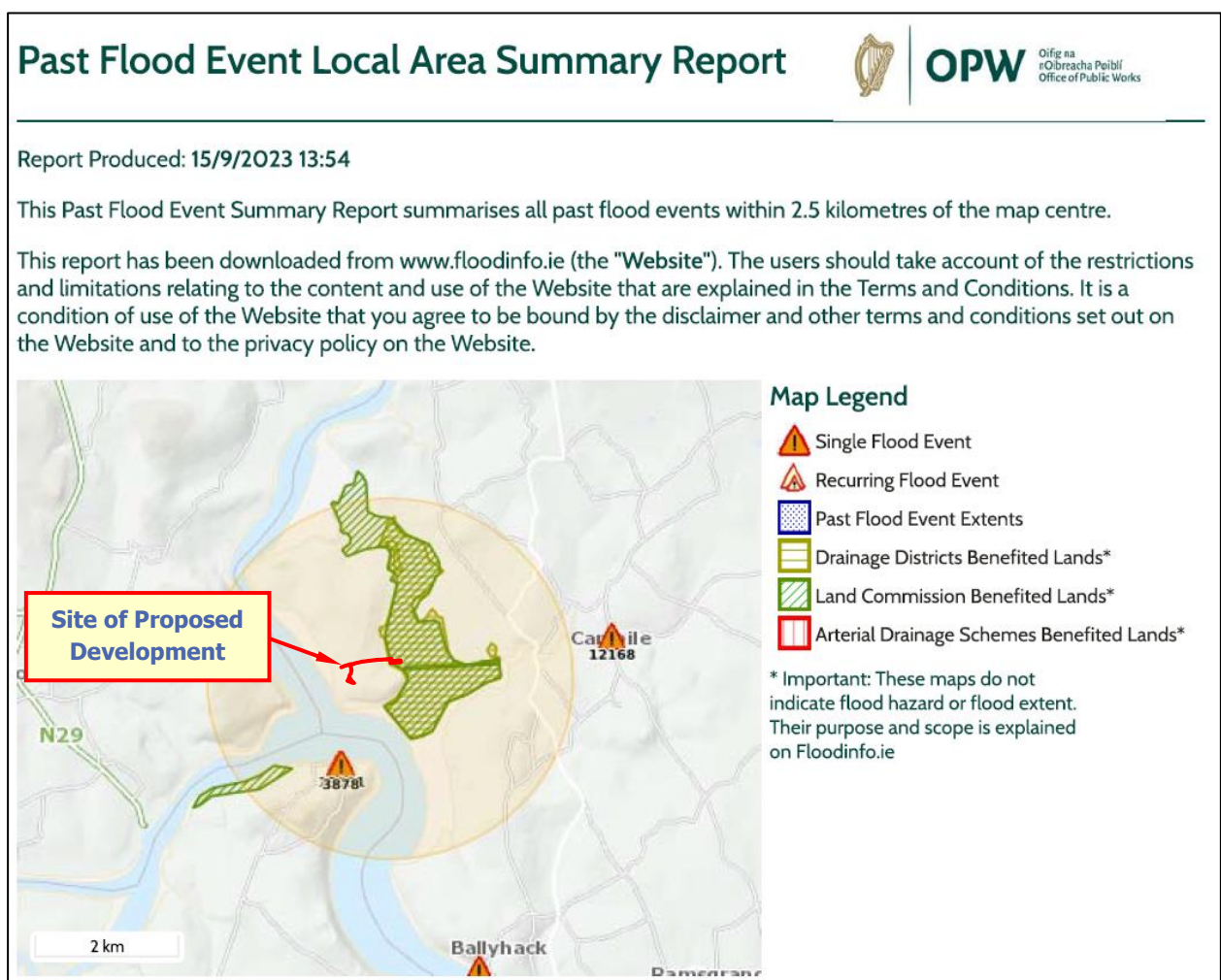
**Figure 3 - OPW PFRA Mapping**

The PFRA flood mapping indicates that the site of the proposed development does not fall within an indicative fluvial, coastal, pluvial or groundwater flood zone. An indicative fluvial and coastal flood zone is mapped beyond the eastern boundary of the site, however these flood zones do not encroach the site boundary.

It should be noted that the extent of flooding illustrated on these maps was developed using a low-resolution digital terrain model (DTM) and illustrated flood extents are intended to be indicative only. The flood extents mapped on the PFRA maps are not intended to be used on a site-specific basis.

### 4.3. OPW Flood Info Website

The OPW Flood Info Website ([www.floodinfo.ie](http://www.floodinfo.ie)) was consulted in relation to available historical or anecdotal information on any flooding incidences or occurrences in the vicinity of the proposed development site. *Figure 4* below illustrates mapping from the OPW Flood Info website in the vicinity of the site, which identifies recurring flood events recorded in the vicinity of the proposed development site.



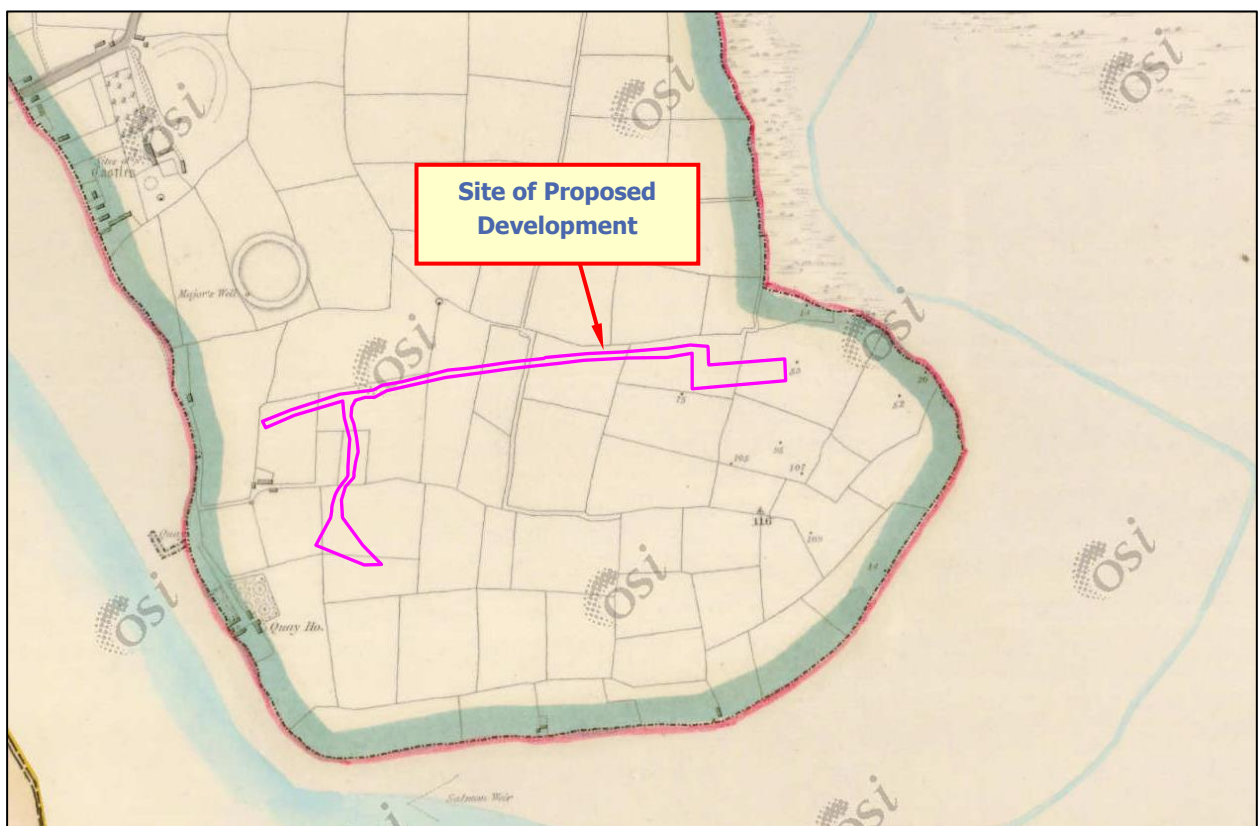
**Figure 4 - OPW Past Flood Events**

*Figure 4* above indicates that there are no historical or recurring flooding events recorded within or in the vicinity of the boundary of the proposed development site. The site is partially shown as falling within an area designated as 'Land Commission Benefited Lands'.

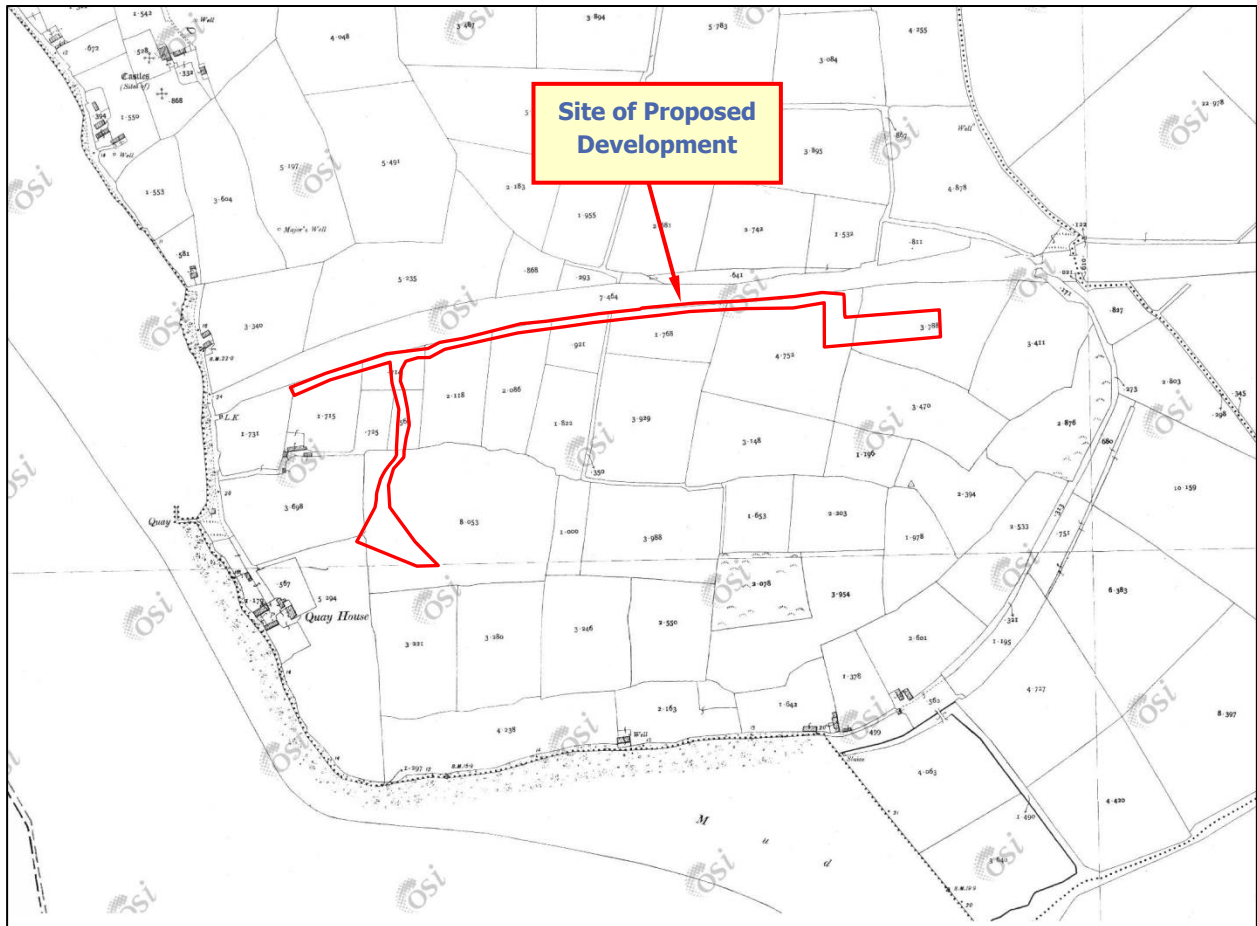
'Land Commission Benefited Lands' are described by the OPW as lands that might benefit from the implementation of drainage schemes and areas of land that may be subject to flooding or poor drainage.

#### 4.4. Ordnance Survey Historic Mapping

Available historic mapping for the area was consulted, as this can provide evidence of historical flooding incidences or occurrences. The maps that were consulted were the historical 6-inch maps (pre-1900), and the historic 25-inch map series. *Figure 5* and *Figure 6* below show the historic mapping for the area of the proposed development site.



**Figure 5 - Historic 6 Inch Mapping**



**Figure 6 - Historic 25 Inch Mapping**

The historic 6 inch and 25 inch mapping does not indicate any historical or anecdotal instances of flooding within or adjacent to the boundary of the proposed development site.

#### 4.5. Geological Survey of Ireland Mapping

The alluvial deposit maps of the Geological Survey of Ireland (GSI) were consulted to assess the extent of any alluvial deposits in the vicinity of the proposed development site. Alluvial deposits can be an indicator of areas that have been subject to flooding in the recent geological past. *Figure 7* below illustrates the sub-soils mapping for the general area of the site.



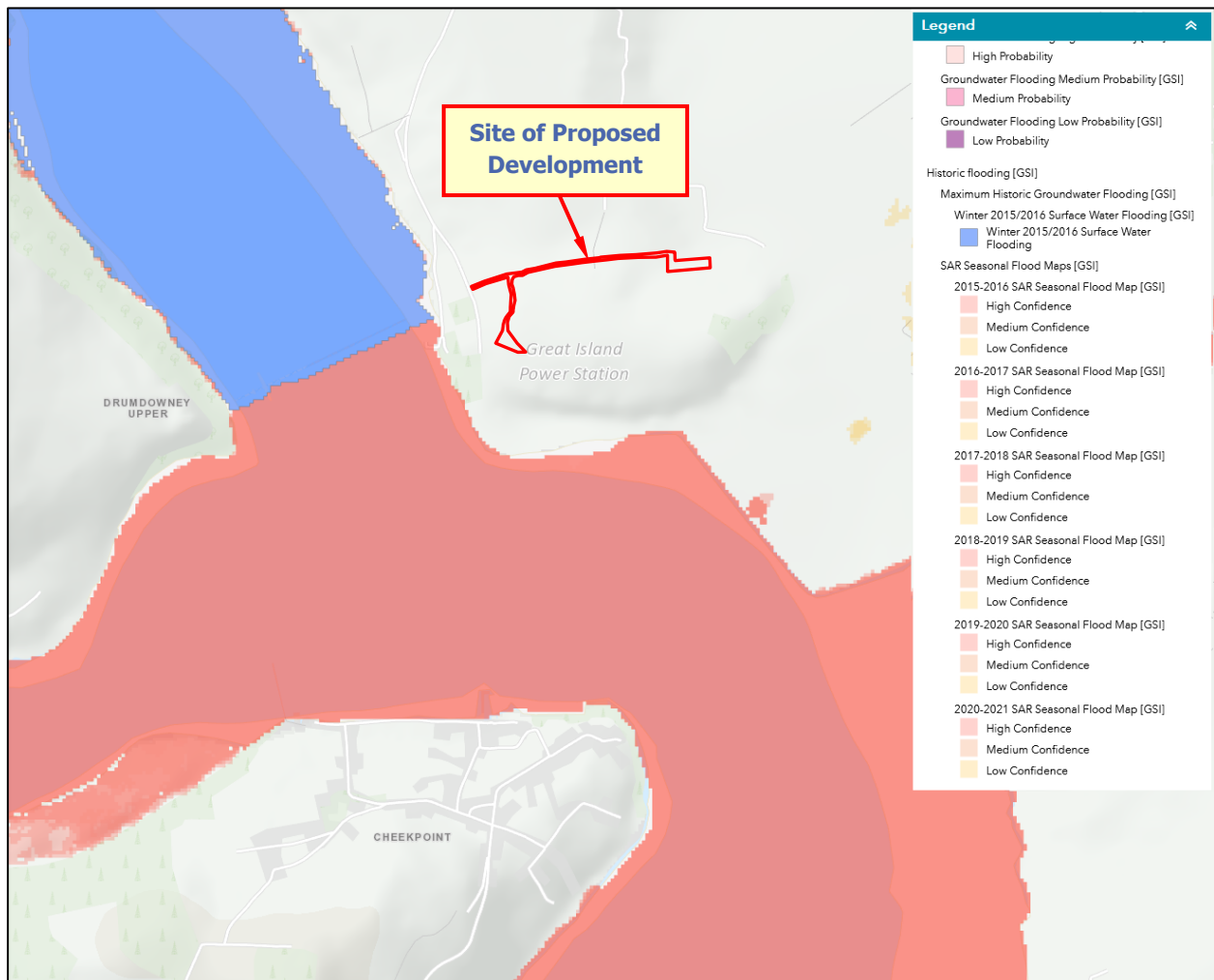
**Figure 7 - GSI Subsoil Mapping**

*Figure 7* above indicates that the site of the proposed development is primarily underlain by bedrock at surface with the remainder underlain by Made Ground. Alluvium deposits are not mapped within or in the vicinity of the site.

## 4.6. Geological Survey of Ireland Groundwater Flood Mapping

Historic and Predictive Groundwater Mapping for Ireland was prepared by the GSI Department of Communication, Climate Action, and Environment in collaboration with Trinity College Dublin and the Institute of Technology Carlow.

Figure 8 below illustrates an extract from the groundwater flood mapping in the vicinity of the site of the proposed development.



**Figure 8 - GSI Groundwater Flood Mapping**

The above GSI Groundwater Mapping indicates no areas of predictive or historical groundwater or surface water flooding located within or in the immediate vicinity of the site.

#### 4.7. OPW National CFRAM Dataset Flood Extents

The OPW Floodinfo.ie and OPW WMS resource was utilised to assess the predictive OPW CFRAMS present day scenario and mid-range future climate change scenario fluvial and coastal/tidal flood extents and flood levels in the general location of the site of the proposed development.

*Figure 11* below illustrates the predictive extreme present day scenario 1% AEP (1 in 100 year) and 0.1% AEP (1 in 1000 year) fluvial extents at and in the vicinity of the site as acquired from the OPW WMS resource.



**Figure 9 – 1% AEP & 0.1% AEP Present Day Scenario CFRAM Fluvial Flood Extent Map**

*Figure 9* above indicates that the site of the proposed development does not fall within a predictive present day scenario 1% AEP (1 in 100 year) or 0.1% AEP (1 in 1000 year) fluvial flood zone.



Figure 10 below illustrates the predictive extreme present day scenario 0.5% AEP (1 in 200 year) and 0.1% AEP (1 in 1000 year) coastal/tidal flood extents at and in the vicinity of the site as acquired from the OPW WMS resource.



**Figure 10 – 0.5% AEP & 0.1% AEP Present Day Scenario CFRAM Coastal/Tidal Flood Extent Map**

Figure 10 above indicates that the site of the proposed development does not fall within a predictive present day scenario 0.5% AEP (1 in 200 year) or 0.1% AEP (1 in 1000 year) coastal/tidal flood zone.

Figure 11 below illustrates the predictive extreme mid-range future climate change scenario 1% AEP + CC (1 in 100 year + climate change) and 0.1% AEP + CC (1 in 1000 year + climate change) fluvial extents at and in the vicinity of the site as acquired from the OPW WMS resource.



**Figure 11 – 1% AEP+CC & 0.1% AEP+CC Mid-Range Future Climate Change Scenario CFRAM Fluvial Extent Map**

*Figure 11* above indicates that the proposed development site does not fall within a predictive mid-range future climate change scenario 1% AEP + CC (1 in 100 year + climate change) or 0.1% AEP + CC (1 in 1000 year + climate change) fluvial flood zone.

*Figure 12* below illustrates the predictive extreme mid-range future climate change scenario 0.5% AEP + CC (1 in 200 year + climate change) and 0.1% AEP + CC (1 in 1000 year + climate change) coastal/tidal flood extents at and in the vicinity of the site as acquired from the OPW WMS resource.

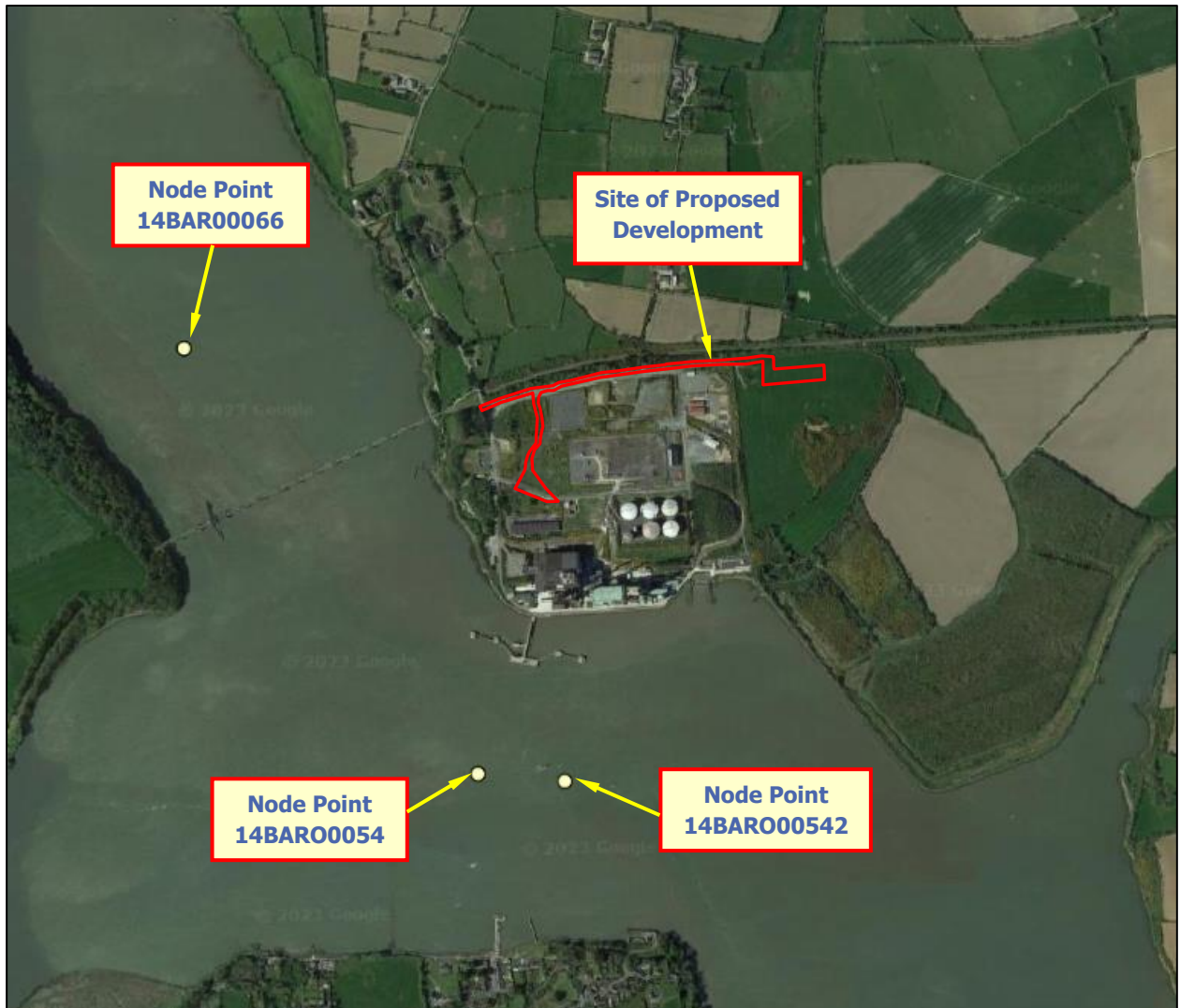


**Figure 12 – 0.5% AEP+CC & 0.1% AEP+CC Mid-Range Future Scenario CFRAM Coastal/Tidal Flood Extent Map**

*Figure 12* above indicates that the proposed development site does not fall within a predictive mid-range future climate change scenario 0.5% AEP + CC (1 in 200 year + climate change) or 0.1% AEP + CC (1 in 1000 year + climate change) coastal/tidal flood zone.

The OPW WMS resource also provides information on predictive flood water levels for the present day scenario and mid-range future climate change scenario 10% AEP (1 in 10 year), 1% AEP (1 in 100 year) and 0.1% AEP (1 in 1000 year) fluvial and tidal flood events at various hydrological estimate points (node points) along the River Barrow and River Suir Estuary.

The node points closest to the site of the proposed development are illustrated in *Figure 13* below.



**Figure 13 – OPW CFRAMS Node Points**

Details of the predictive coastal/tidal flood levels for these node points are listed in *Table 2* below.

Node Label	Present Day Scenario			Mid-Range Future Scenario		
	10% AEP	0.5% AEP	0.1% AEP	10% AEP	0.5% AEP	0.1% AEP
	Water Level (m OD)	Water Level (m OD)	Water Level (m OD)	Water Level (m OD)	Water Level (m OD)	Water Level (m OD)
14BAR000661	2.53	2.79	2.92	3.00	3.27	3.40
14BAR000542	2.52	2.78	2.91	2.99	3.26	3.39
14BAR000542a	-	-	-	-	-	-

**Table2: Predictive Coastal/Tidal Flood Levels**

#### 4.8. National Coastal Flood Hazard Mapping (NCFHM) 2021

The NCFHM mapping was produced by the OPW in 2021 using the estimated extreme water level outputs from Phase 1 of the Irish Coastal Wave and Water Level Modelling Study (ICWWS 2018). In general the OPW NCFHM mapping provides a more accurate and up to date representation of potential coastal/tidal flood risk in comparison to the OPW CFRAMS coastal/tidal flood maps.

The OPW NCFHM includes coastal flood extent and depth maps which have been produced for the 50%, 20%, 10%, 5%, 2%, 1%, 0.5% and 0.1% Annual Exceedance Probabilities (AEPs) for the present day scenario and mid-range Future Scenario.

*Figure 14* below illustrates the predictive extreme present day scenario 0.5% AEP (1 in 200 year) and 0.1% AEP (1 in 1000 year) NCFHM coastal/tidal flood extents in the vicinity of the site of the proposed development.



**Figure 14 – NCFHM Present Day Scenario Coastal/Tidal Flood Extents**

*Figure 14* above indicates that a minor area adjacent to the eastern boundary of the site falls within a predictive present day scenario 0.5% AEP (1 in 200 year) and 0.1% AEP (1 in 1000 year) NCFHM coastal/tidal flood zone. It is noted that no development is proposed at this specific location of the site.

*Figure 15* below illustrates the predictive present day scenario 0.5% AEP (1 in 200 year) NCFHM coastal/tidal flood depths in the vicinity of the site.



**Figure 15 – NCFHM Coastal/Tidal Present Day Scenario 0.5% AEP Flood Depth**

*Figure 16* below illustrates the predictive present day scenario 0.1% AEP (1 in 1000 year) NCFHM coastal/tidal flood depths in the vicinity of the site.



**Figure 16 – NCFHM Coastal/Tidal Present Day Scenario 0.1% AEP Flood Depth**

Figure 17 below illustrates the predictive extreme mid-range future climate change scenario 0.5% AEP + CC (1 in 200 year + climate change) and 0.1% AEP + CC (1 in 1000 year + climate change) NCFHM coastal/tidal flood extents in the vicinity of the site of the proposed development.





**Figure 17 – NCFHM Mid-Range Future Climate Change Scenario Coastal/Tidal Flood Extents**

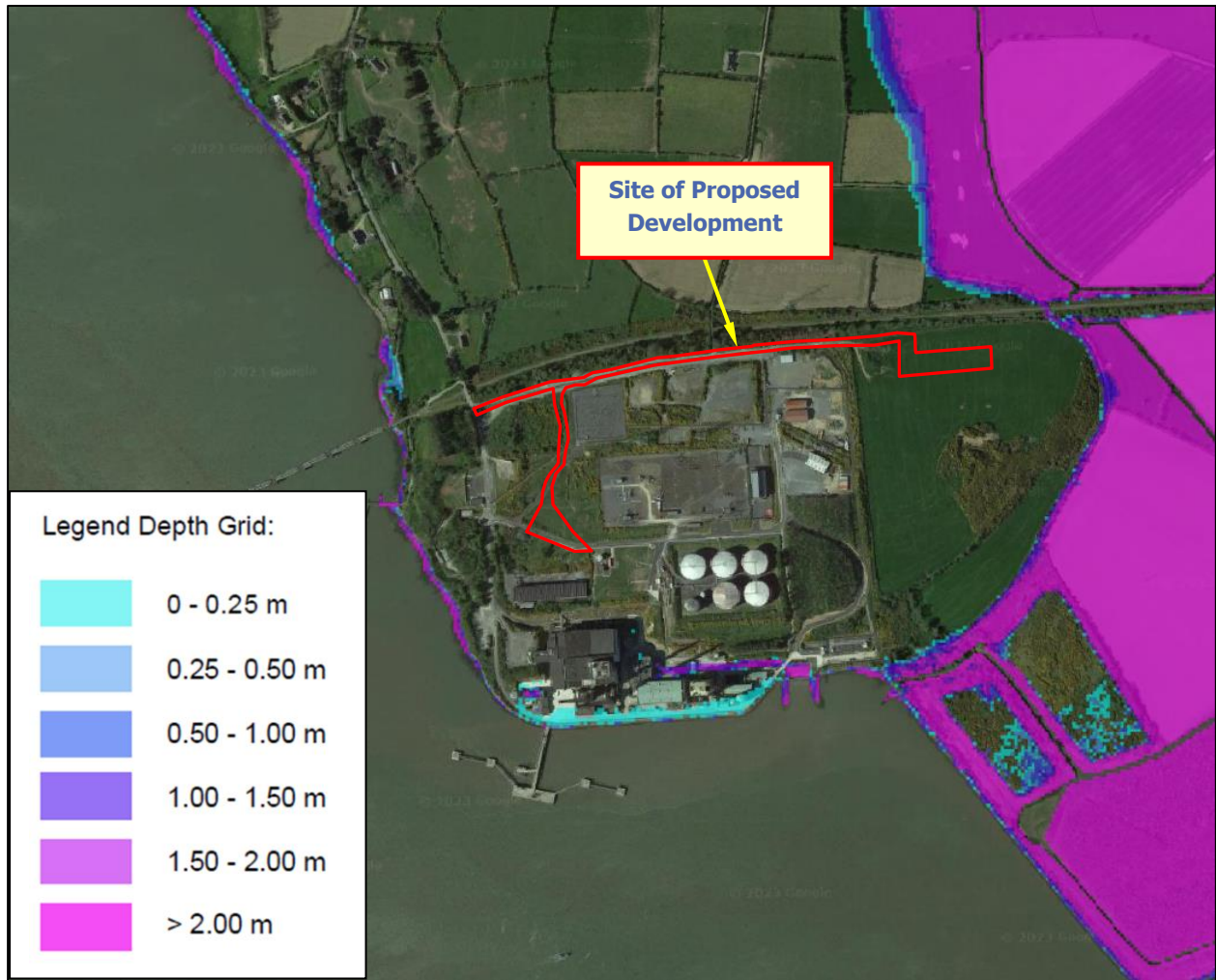
*Figure 17* above indicates that a minor area adjacent to the eastern boundary of the site falls within a predictive mid-range future climate change scenario 0.5% AEP + CC (1 in 200 year + climate change) and 0.1% AEP + CC (1 in 1000 year + climate change) NCFHM coastal/tidal flood zone. It is noted that no development is proposed at this specific location of the site.

*Figure 18* below illustrates the predictive mid-range future climate change scenario 0.5% AEP + CC (1 in 200 year + climate change) NCFHM coastal/tidal flood depths in the vicinity of the site.



**Figure 18 – NCFHM Coastal/Tidal Mid-Range Future Climate Change Scenario – 0.5% AEP Flood Depths**

*Figure 19* below illustrates the predictive mid-range future climate change scenario 0.1% AEP + CC (1 in 200 year + climate change) NCFHM coastal/tidal flood depths in the vicinity of the site.



**Figure 19 – NCFHM Coastal/Tidal Mid-Range Future Climate Change Scenario – 0.1% AEP Flood Depths**

The OPW NCFHM mapping also provides information on predictive extreme coastal/tidal flood levels at various node points along the Irish coast and associated tidal estuaries.

As illustrated in *Figure 20* below the NCFHM Extreme Water Level Estimate Point (node point) closest to the location of the site of the proposed development is referenced as ‘*Node Point W4*’.



**Figure 20 – NCFHM Tidal – Node Point Locations**

Table 3 below lists the predictive extreme coastal/tidal flood levels for *Node Point W4*.

Scenario	Node Point S24 Extreme Tidal / Coastal Flood Level		
	10% AEP Water Level (mOD)	0.5% AEP Water Level (mOD)	0.1% AEP Water Level (mOD)
Current	2.53	2.91	3.12
Mid-Range Future	3.03	3.41	3.62

**Table 3 – Predictive Coastal/Tidal Water Levels - Node Point W4**

## 5. Scoping Assessment

The purpose of the scoping stage is to identify possible flood risks and to implement the necessary level of detail and assessment to assess these possible risks, and to ensure these can be adequately addressed in the flood risk assessment. The scoping exercise should also identify that sufficient quantitative information is already available to complete a flood risk assessment appropriate to the scale and nature of the development proposed.

The above screening assessment indicates that the site of the proposed development site is not particularly at risk from fluvial, coastal/tidal, pluvial or groundwater flooding.

In consideration of the information collated as part of the screening exercise, and the availability of other information and data specific to the area of the site of the proposed development, it is considered that sufficient quantitative information to complete an appropriate flood risk assessment for the development as proposed can be derived from the information collated as part of the screening exercise.

In particular the flood extent maps for the area produced as part of the OPW National Coastal Flood Hazard Mapping (NCFHM) are based on the results of detailed hydraulic modelling undertaken along the River Barrow Estuary and River Suir Estuary and provide a reasonably accurate delineation of flood zones and prediction of extreme flood levels at the location of the site of the proposed development.

## 6. Development in the Context of the Guidelines

In the context of the 'Planning System and Flood Risk Management Guidelines, DOEHLG, 2009' three flood zones are designated in consideration of flood risk to a particular development site.

Flood Zone 'A' – where the probability of flooding from rivers and watercourses is the highest (greater than 1% or 1 in 100 year for river and watercourse flooding and 0.5% or 1 on 200 for coastal or tidal flooding).

Flood Zone 'B' – where the probability of flooding from rivers and watercourses is moderate (between 0.1% or 1 in 1000 year for river and watercourse flooding and 0.5% or 1 on 200 for coastal or tidal flooding).

Flood Zone 'C' – where the probability of flooding from rivers and watercourses is low or negligible (less than 0.1% or 1 in 1000 year for both river and watercourse and coastal flooding). Flood Zone 'C' covers all areas that are not in Zones 'A' or 'B'.

The 'Planning System and Flood Risk Management Guidelines' list the planning implications for each flood zone, as summarised below:

**Zone A – High Probability of Flooding.** Most types of development would not be considered in this zone. Development in this zone should be only be considered in exceptional circumstances, such as in city and town centres, or in the case of essential infrastructure that cannot be located elsewhere, and where the 'Planning System and Flood Risk Management Guidelines' justification test has been applied. Only water-compatible development, such as docks and marinas, dockside activities that require a waterside location, amenity open space and outdoor sports and reaction would be considered appropriate in this zone.

**Zone B – Moderate Probability of Flooding.** Highly vulnerable development such as hospitals, residential care homes, Garda, fire and ambulance stations, dwelling houses, strategic transport and essential utilities infrastructure would generally be considered inappropriate in this zone, unless the requirements of the justification test can be met. Less vulnerable development such as retail, commercial and industrial uses and recreational facilities might be considered appropriate in this zone. In general however, less vulnerable development should only be considered in this zone if adequate lands or sites are not available in Zone 'C' and subject to a flood risk assessment to the appropriate level of detail to demonstrate that flood risk to the development can be adequately managed and that development in this zone will not adversely affect adjacent lands and properties.

**Zone C – Low to Negligible Probability of Flooding.** Development in this zone is appropriate from a flood risk perspective. Developments in this zone are generally not considered at risk of fluvial flooding and would not adversely affect adjacent lands and properties from a flood risk perspective.

The screening assessment undertaken as part of this Site Specific Flood Risk Assessment indicates that the site of the proposed development does not fall within a delineated fluvial, pluvial or coastal Flood Zone 'A' or Flood Zone 'B'.

In the context of the 'Planning System and Flood Risk Management Guidelines, DOEHLG, the site of the proposed development falls within Flood Zone 'C'. In this regard the development as proposed is not subject to the requirement of The Justification Test.

## 7. Summary Conclusions

In consideration of the findings of this Site Specific Flood Risk Assessment and analysis the following conclusions are made in respect of the development as proposed:

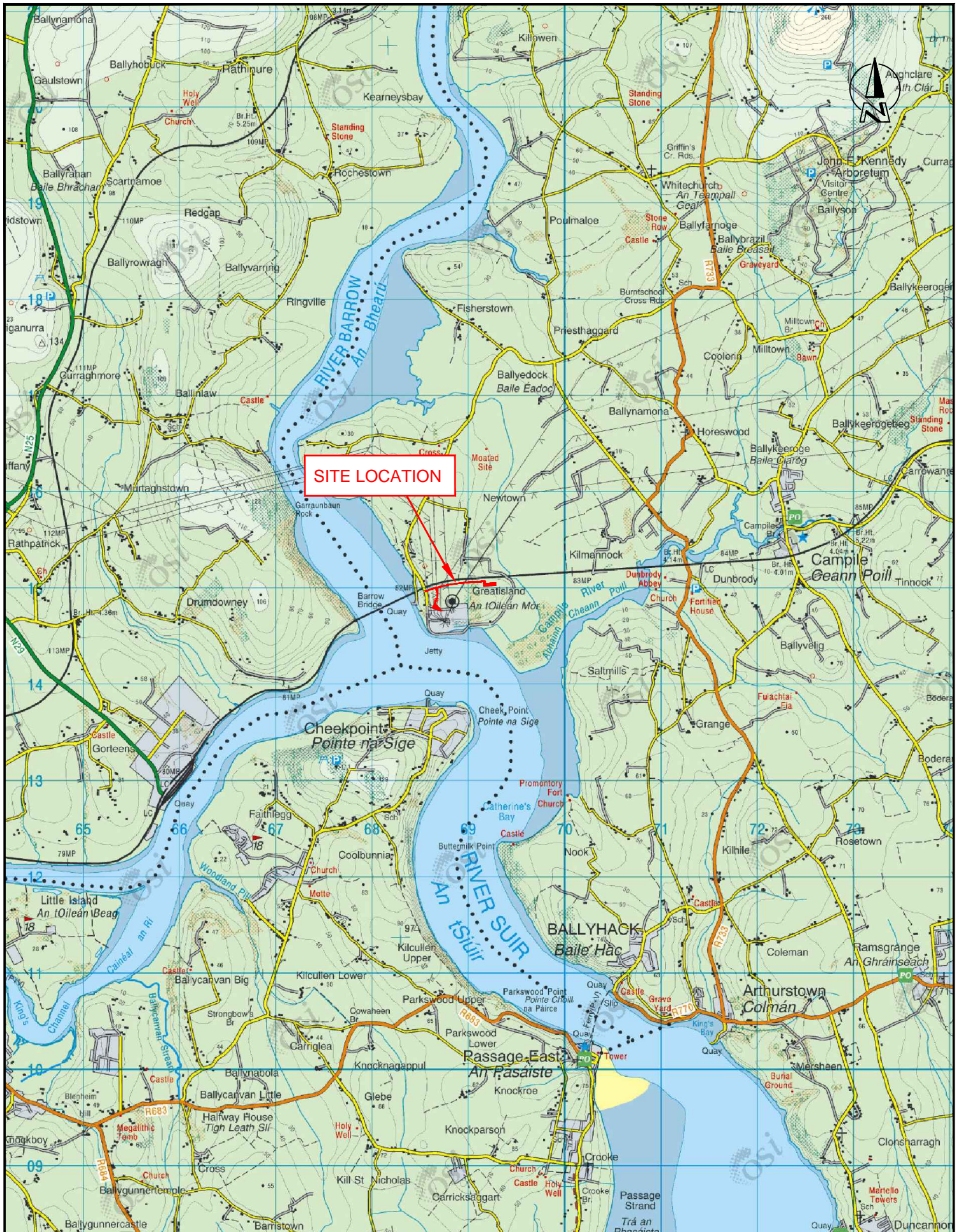
- *A Site Specific Flood Risk (SSFRA) assessment, appropriate to the type and scale of development proposed, and in accordance with 'The Planning System and Flood Risk Management Guidelines – DoEHLG-2009' has been undertaken.*
- *The site of the proposed development has been screened, scoped, and assessed for flood risk in accordance with the above guidelines.*
- *The site is not at risk of fluvial, coastal/tidal, pluvial or groundwater flooding.*
- *The area of the site of the proposed development falls within Flood Zone 'C'.*
- *The development as proposed is therefore not expected to result in an adverse impact to the existing hydrological regime of the area or increase flood risk elsewhere.*
- *In consideration of the findings of this Site Specific Flood Risk Assessment, it is considered that the development as proposed is appropriate from a flood risk perspective.*



# Appendices

# Appendix A. Drawings

IE2816-001-C Site Location Map



**SITE LOCATION**

IE Consulting Innovation  
 Centre, Green Road,  
 Carlow, R93 W248.  
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 Web: www.iece.ie



<b>Project Title:</b>	FLOOD RISK ASSESSMENT
<b>Project Address:</b>	GREAT ISLAND, LIKMOKEA, CO. WEXFORD
<b>Client:</b>	KILMANNOCK BATTERY STORAGE LTD.
<b>Drg. Title:</b>	SITE LOCATION MAP
<b>Dwg. Scale:</b>	1:50,000
<b>Date:</b>	13/12/23
<b>Dwg.No:</b>	IE2816-001
<b>Job No:</b>	IE2816
<b>Revision:</b>	C
<b>Dwg.By:</b>	LMC