PUNCH
CONSULTING ENGINEERS

Athlone Link Road

Site Specific Flood Risk Assessment

262119-PUNCH-XX-XX-RP-C-0001

March 2026

Document Control

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Status	Rev	Description	Date	Prepared	Checked	Approved
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1 Introduction

1.1 Background

PUNCH Consulting Engineers was appointed to carry out a Site-Specific Flood Risk Assessment (SSFRA) for the site of a new link road and bus parking area adjacent to Southern Station Road, in Athlone, County Westmeath. This SSFRA report has been prepared in response to Item 1 of a Request for Further Information (RFI) prepared by An Coimisiún Pleanála (ACP) for Case No. ACP-322958-25, dated 5th January 2026.

The assessment is carried out in full compliance with the requirements of "The Planning System & Flood Risk Management – Guidelines for Planning Authorities" published by the Office of Public Works (OPW) under the Department of the Environment, Heritage and Local Government in November 2009 and the Westmeath County Council County Development Plan (CDP) 2021-2027.

1.2 Existing Site

The subject site is located in Athlone town centre, adjacent to Athlone Train Station and is approximately 3.6 hectares in size. The proposed site is bordered by Coosan Point Road / Southern Station Road junction with the new Link Road to the west, Southern Station Road to the north, Ballymahon Road to the east, and residential developments to the south. Land within the site generally falls from east to west. The western portion of the site is currently an undeveloped greenfield land, while the eastern side is occupied by a bus depot. The location of the site is shown in Figure 1-1.

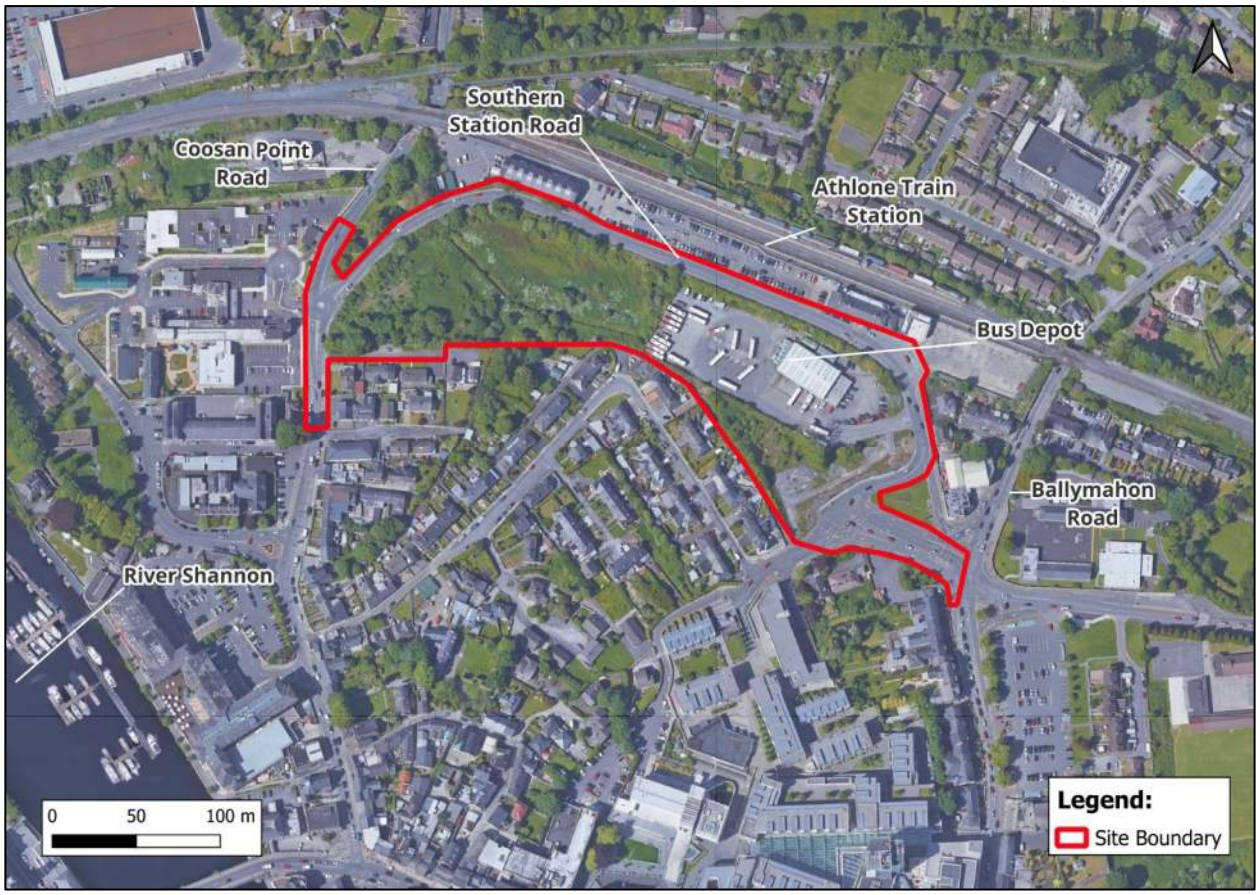


Figure 1-1: Location of the Proposed Development.

1.3 Nature of the Proposed Development

The proposed development will include the construction of Phase 2 of the link road from Coosan Point Road to The Crescent, provision of additional bus parking, alterations to the signalised junction at Coosan Point and alterations to the alignment of the existing foul sewer that currently lies within the area for proposed additional bus parking. An extract from the site layout is included in Figure 1-2.

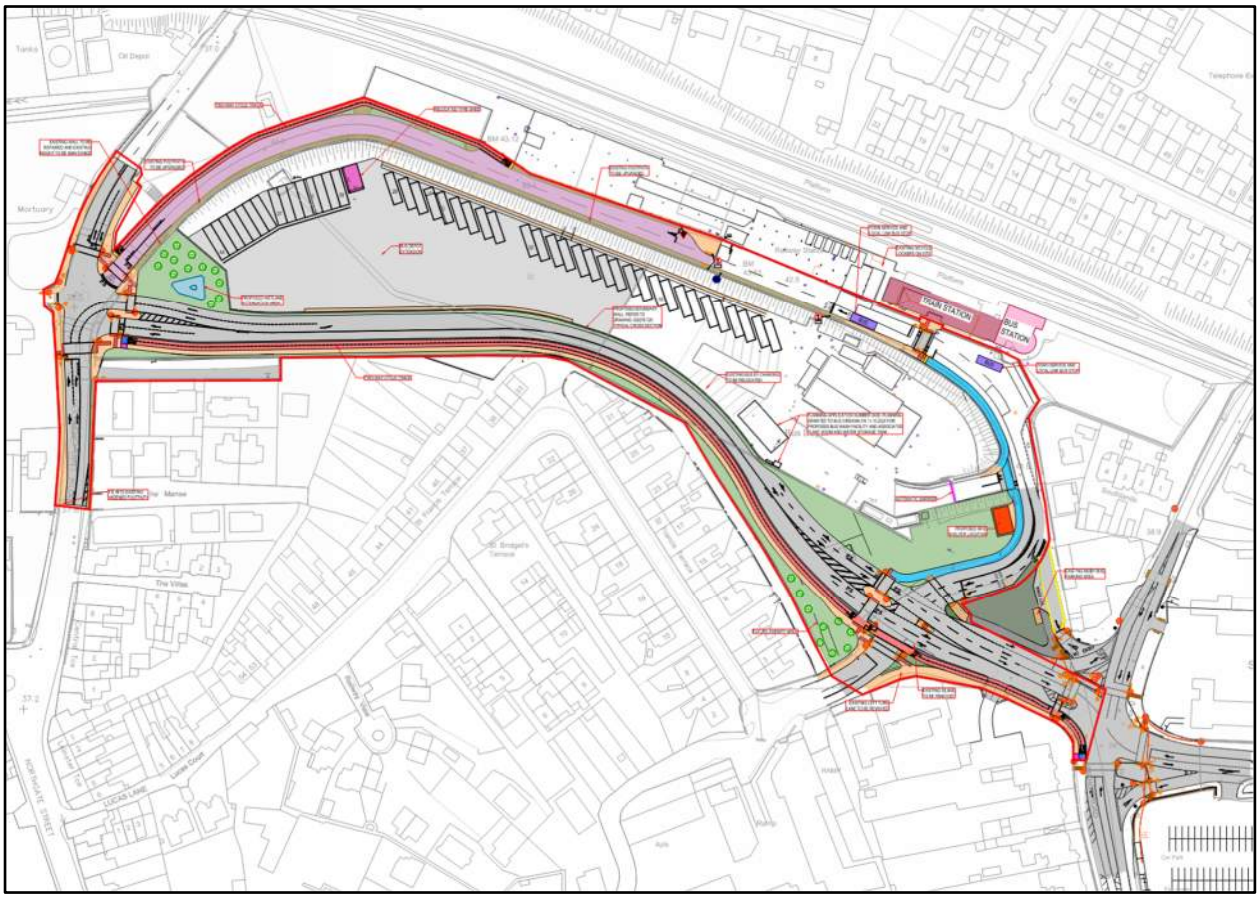


Figure 1-2: Proposed Site Layout.

2 Relevant Guidance

2.1 The Planning System and Flood Risk Management – Guidelines for Planning Authorities

In November 2009, "The Planning System and Flood Risk Management - Guidelines for Planning Authorities" was published by the OPW under the Department of the Environment, Heritage and Local Government.

The flood risk management guidelines provide direction on assessing flood risk in relation to development. They advocate for a precautionary approach when integrating flood risk management into the planning system. A key principle of the guidelines is the application of a sequential approach to flood risk management, prioritising the avoidance of development in high-risk areas. This approach relies on identifying flood zones for both river and coastal flooding. The guidelines define Flood Zones A, B, and C, as outlined in Table 2-1 below. Notably, these zones do not consider existing flood defences, as the risks of overtopping and breaches remain.

Table 2-1: Flood Zone Designation

Flood Zone	Type of Flooding	Annual Exceedance Probability (AEP)
Flood Zone A	Coastal	Less than a 1:200 (0.5% AEP) year event
	Fluvial	Less than a 1:100 (1% AEP) year event
Flood Zone B	Coastal	Greater than a 1:200 (0.5% AEP) and less than a 1:1000 (0.1% AEP) year event
	Fluvial	Greater than a 1:100 (1% AEP) and less than a 1:1000 (0.1% AEP) year event
Flood Zone C	Coastal	Greater than a 1:1000 (0.1% AEP) year event
	Fluvial	Greater than a 1:1000 (0.1% AEP) year event

After identifying a flood zone, the guidelines specify the types of development suitable for each zone. In certain cases, exceptions to development restrictions due to flood risk can be made through the Justification Test. This test requires demonstrating both the planning need for the development and the ability to sustainably manage flood risk to an acceptable level. It acknowledges that future development may be necessary in established towns and urban centres within flood risk zones and that completely avoiding development in these areas would be unsustainable. A three staged approach to undertaking an FRA is recommended:

Stage 1: Flood Risk Identification – Identification of any issues relating to the site that will require further investigation through a Flood Risk Assessment;

Stage 2: Initial Flood Risk Assessment – Involves establishment of the sources of flooding, the extent of the flood risk, potential impacts of the development and possible mitigation measures;

Stage 3: Detailed Flood Risk Assessment – Assess flood risk issues in sufficient detail to provide quantitative appraisal of potential flood risk of the development, impacts of the flooding elsewhere and the effectiveness of any proposed mitigation measures.

This report addresses the requirements for Stage 1.

2.2 Westmeath County Development Plan 2021 – 2027

Policies relating to flood risk within the Westmeath County Development Plan (CDP) 2021-2027 are outlined in Chapter 10 (Transport, Infrastructure and Energy). The relevant objectives of the CDP are as follows:

CPO 10.105

Have regard to the "Guidelines for Planning Authorities on the Planning System and Flood Risk Management" (DoEHLG/OPW 2009) and Circular PL2/2014, through the use of the sequential approach and application of the Justification Tests in Development Management.

CPO 10.106

Ensure that a flood risk assessment is carried out for any development proposal within 200m of a watercourse and at risk of flooding, in accordance with the "Guidelines for Planning Authorities on the Planning System and Flood Risk Management" (DoEHLG/OPW 2009). This assessment shall be appropriate to the scale and nature of risk to the potential development

A Strategic Flood Risk Assessment (SFRA) was prepared to accompany the WCC CDP, including flood risk mapping, which has been reviewed and analysed as part of this report.

2.3 Athlone Town Plan

The Athlone Joint Urban Area Plan 2024-2030 has not yet been published. The previous Town Plan for Athlone is dated 2014 to 2020 and does not identify any flood risk concerns for the site or surrounding area.

3 Flood Risk Identification

3.1 Existing Hydrological Environment

The existing hydrological environment is characterised primarily by the presence of the River Shannon which is located approximately 200m west of the proposed site. The Athlone Railway Bridge and Athlone Town Bridge are 300m and 250m away from the site respectively. The hydrological environment around the site is shown in Figure 3-1 below.

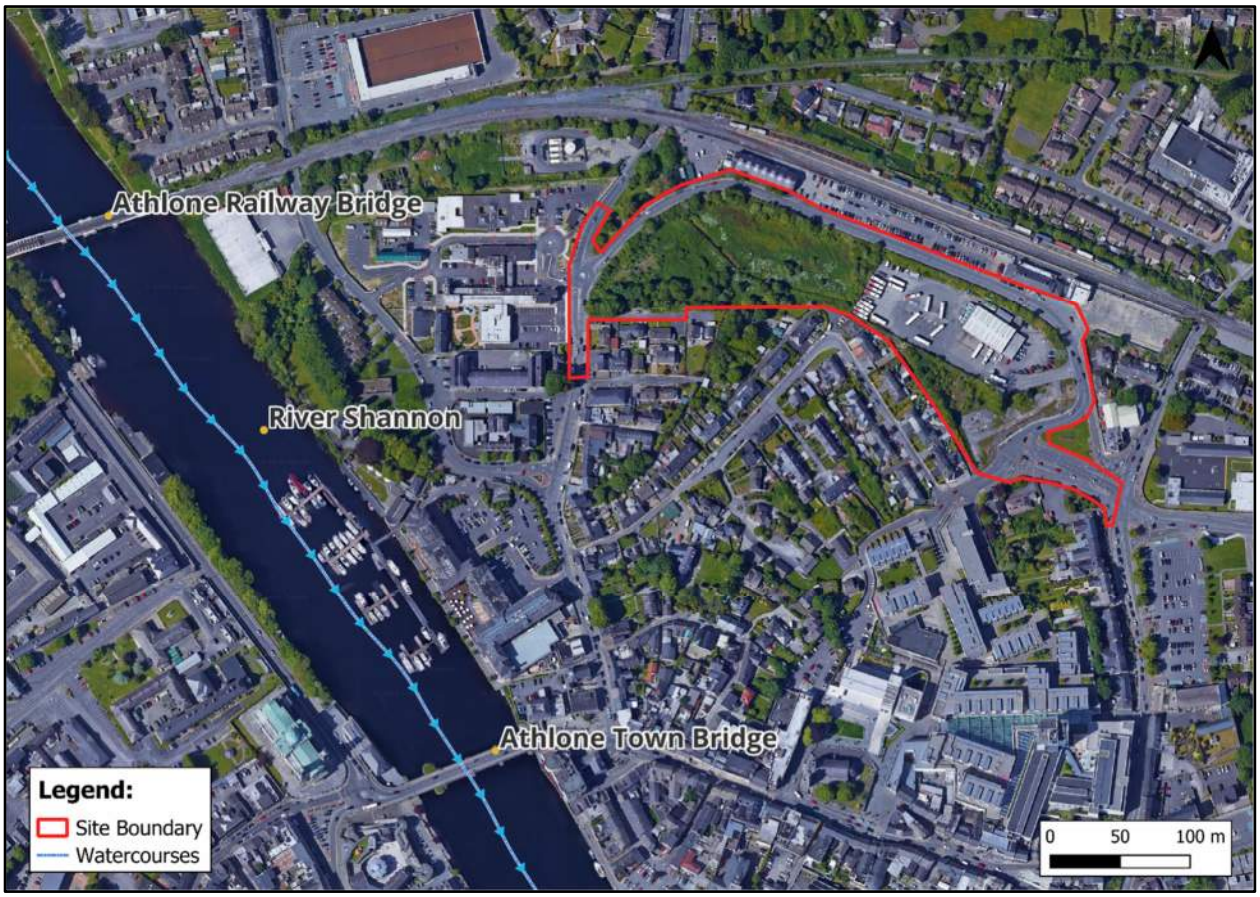


Figure 3-1: Hydrological Environment Around the Site.

3.2 Topographical Survey

A topographical survey of the site and its environs was completed by MPG Surveys in the March 2021.

The site generally slopes from east to west. Levels fall from a high point of 39.5mOD in the southeast of the site to a low point of 36.1 mOD in the western area. A land drain is identified in the western portion of the site, flowing east to west and draining to a culvert under Southern Station Road. An additional open drain is noted entering the site along the southern boundary and flowing south to north before joining the land drain flowing westwards. Areas in the west of the site, south of the land drain, are noted as being wet and marshy.

In the eastern side of the site, the survey identified a number of buildings including a bus depot, sheds and a portacabin. The ground surface in this area is tarmac and there are a number of manholes noted. The Southern Station Road which bounds the site to the east, north and west is at a higher elevation, with recorded road levels between approximately 42.0mAOD and 39.0mAOD.

The topographical survey extent is shown in Figure 3-2.

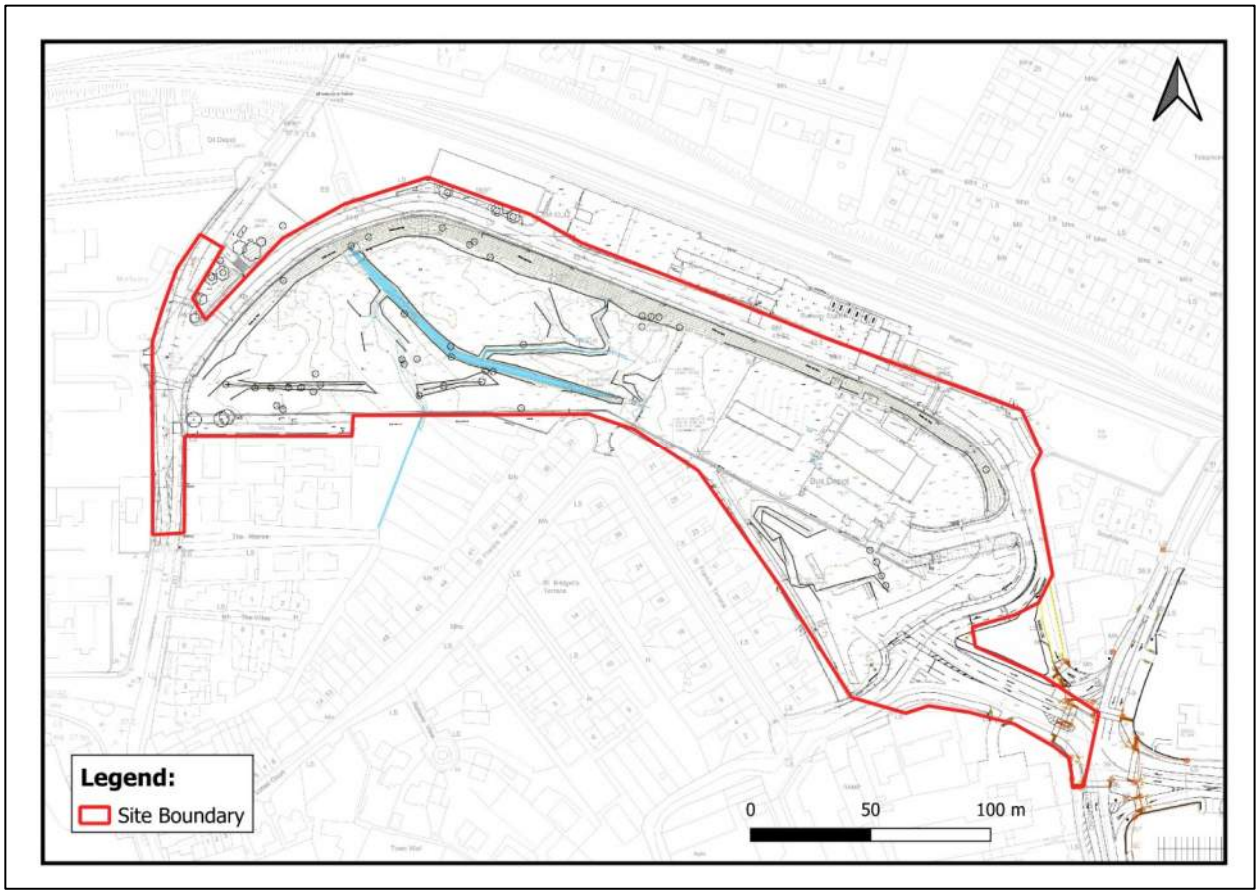


Figure 3-2: Topographical Survey Extent

3.3 Review of LiDAR Data

LiDAR (Light Detection and Ranging) data is a type of remote sensing information obtained using LiDAR technology. It involves emitting laser pulses from a sensor, typically mounted on an aircraft or drone, and measuring the time it takes for the laser to reflect back from the ground or objects. This process creates highly detailed, accurate 3D representations of the Earth's surface and features, including vegetation, buildings, and terrain. For the purposes of this assessment Digital Terrain Model (DTM) data is utilised which shows model elevation data without including surface features such as buildings, vegetation, or other objects. It provides a bare-earth view, representing the ground's topography.

The Geological Survey of Ireland's (GSI) online Open Topographic Data Viewer[1] provides processed LiDAR data in Raster format for large areas across Ireland. For the purposes of this SSFRA, the LiDAR tile labelled 1577 has been downloaded and covers an area approximately 4km^2 with a grid resolution of 2m.

From the review of the DTM data, it is evident that the ground levels within the redline boundary generally fall from east to west, with a raised area towards the northeast of the site around Athlone Train Station and its car park. The elevations within the boundary range from approximately 43mAOD at the northern edge to about 37mAOD at the southern boundary.

The DTM data at the site is presented in Figure 3-3.

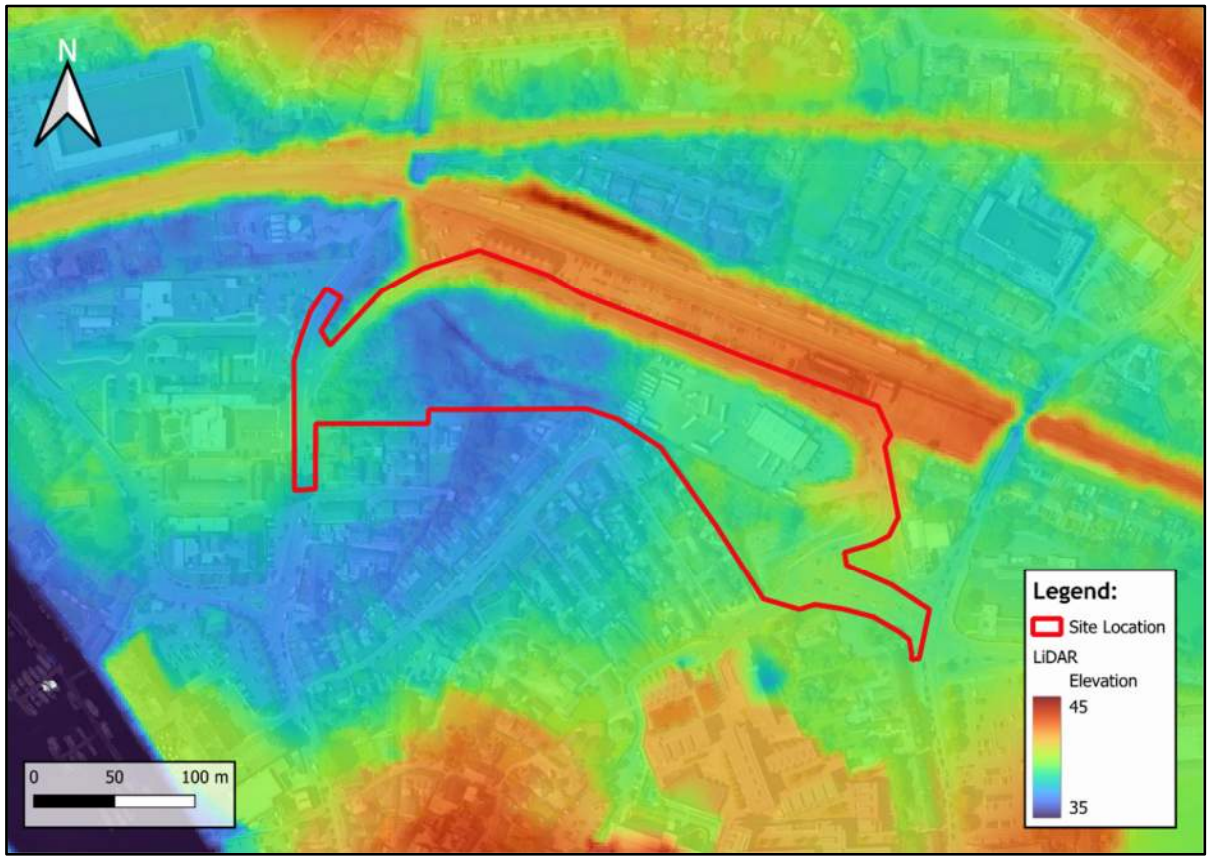


Figure 3-3: LiDAR DTM Data.

3.4 Review of Historic Mapping

A review of the OSI Historical maps[2] was carried out. Figure 3-4 shows an extract from the 25-inch historic mapping and the site is not identified as "liable to flood". The drainage channels are shown on the mapping.

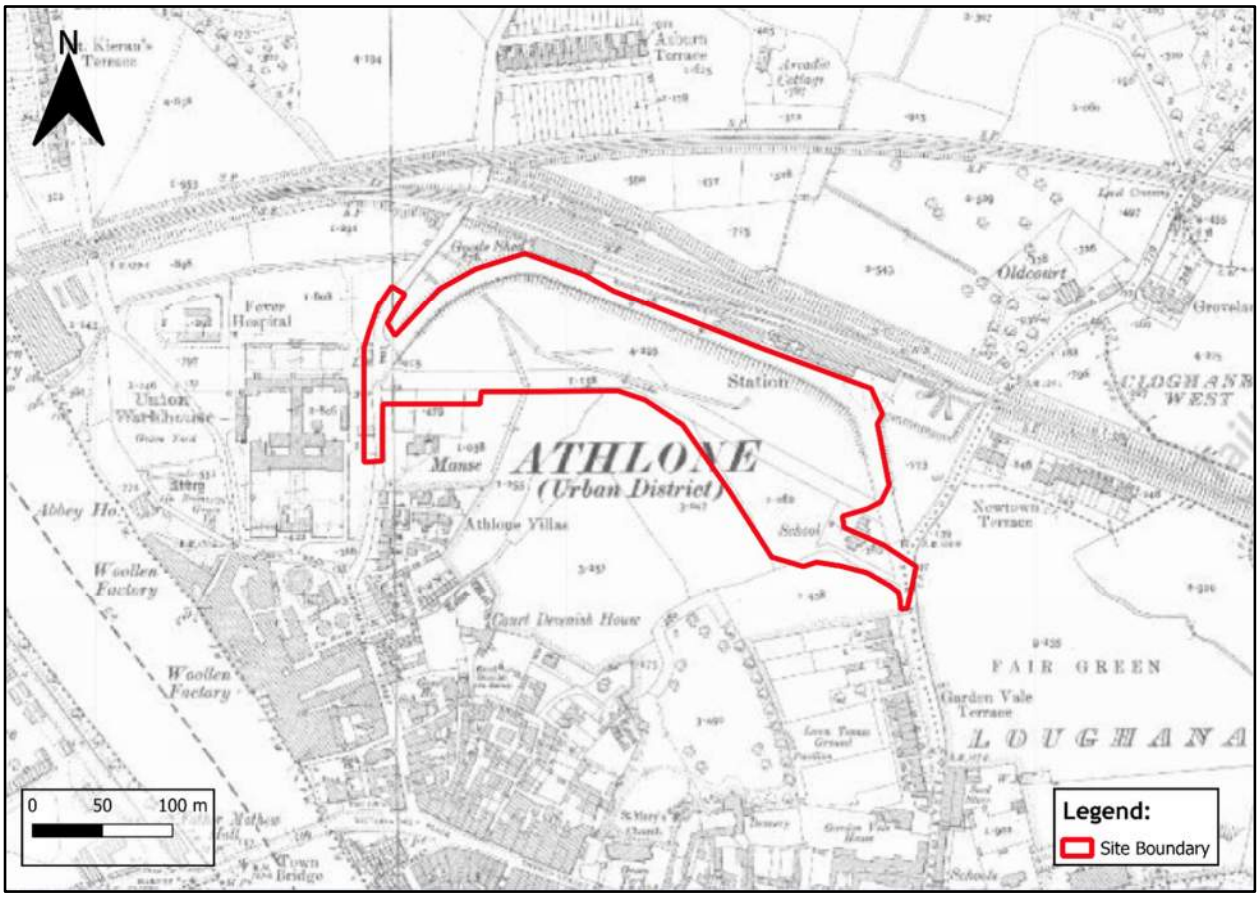


Figure 3-4: Extract from OSI historical mapping.

[2] Maps available: http://map.geohive.ie/mapviewer.html

3.5 History of Flooding

The Office of Public Works (OPW) Flood Hazard Mapping website holds a record of historic flood events.

A review of the database indicated that there have been no instances of flooding on the proposed site as shown in Figure 3-5. The full report is included in Appendix A.

Please note that this is not a guaranteed record of all flood events.

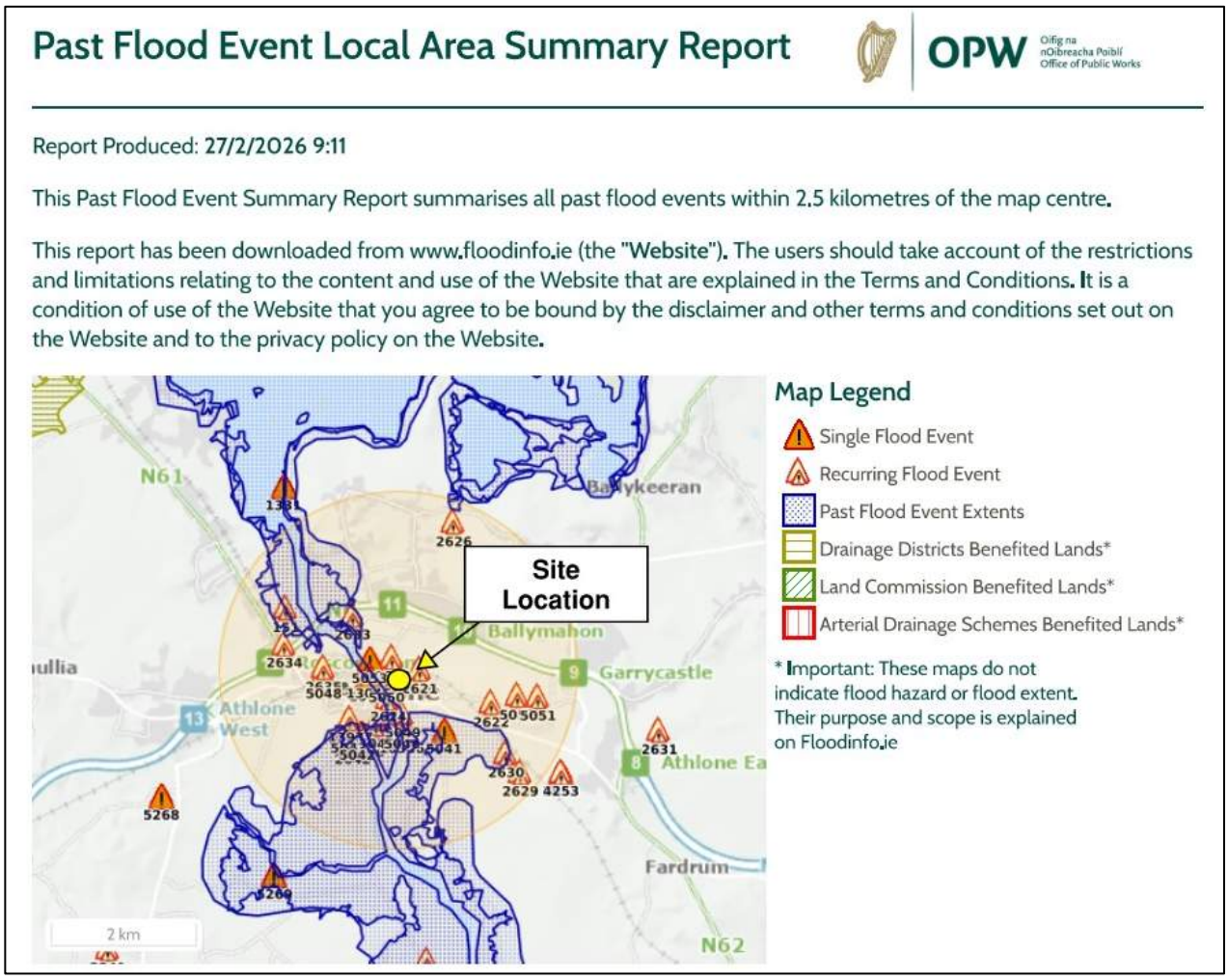


Figure 3-5: Extract from OPW Past Flood Event Local Area Summary Report
http://www.floodmaps.ie/index.aspx?ReturnUrl=%2fView%2fDefault.aspx

3.6 Drainage District

Drainage Districts were undertaken by the Commissioners of Public Works (OPW) under a number of drainage and navigation acts from 1842 to the 1930s to improve land for agriculture and to alleviate flooding. Channels and lakes were deepened and widened, weirs removed, embankments constructed, bridges replaced or modified and various other work was carried out. The purpose of the schemes was to improve land for agriculture, by lowering water levels during the growing season to reduce waterlogging on the land beside watercourses known as callows. Local authorities are charged with responsibility to maintain Drainage Districts.

The site subject to this SSFRA is not located adjacent to or within any Drainage Districts.

3.7 Arterial Drainage Scheme

Arterial Drainage Schemes were carried out by the OPW under the Arterial Drainage Act, 1945, to improve land for agriculture and to alleviate flooding. Rivers, lakes, weirs and bridges were modified to enhance conveyance, and embankments were built to control the movement of flood water. Flood protection in the benefiting lands was increased as a result of these schemes.

The site subject to this SSFRA is not located on lands benefitting from any Arterial Drainage Scheme.

3.8 Site Geology

The geology of the site was reviewed using data from the Geological Survey of Ireland (GSI) available at www.gsi.ie. The soil type or quaternary sediments within the site boundary are 'Alluvium' and 'Gravels derived from limestone' as shown in Figure 3-6 below. The surrounding areas comprise mainly of 'Gravels derived from limestone'.

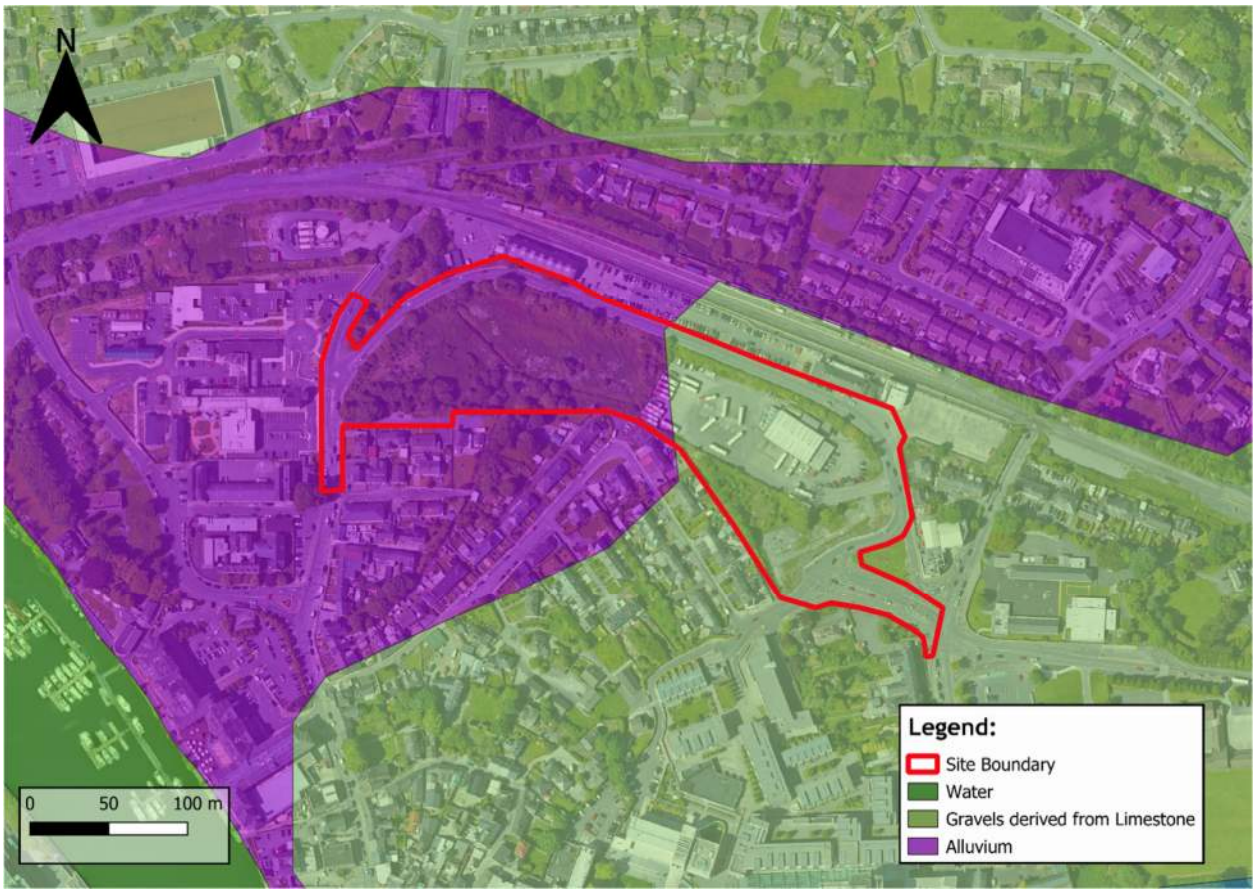


Figure 3-6: Geology of the Surrounding Area.

3.9 Groundwater Flooding

Groundwater flooding occurs when the level of the water stored in the ground rises as a result of prolonged rainfall. A review of data from the Geological Survey of Ireland, does not indicate a groundwater flood risk to the site.

3.10 Pluvial Flooding

Pluvial flooding is the result of rainfall-generated overland flows which arise before run-off can enter any watercourse or sewer. It is usually associated with high intensity rainfall.

The provision of a suitable surface water drainage system for the proposed development on the site will mitigate against pluvial flood risk as demonstrated in the accompanying Engineering Planning Report. The redevelopment of the site will not adversely affect pluvial flood levels or extents in the area.

3.10.1 Proposed Surface Water Infrastructure

The proposed surface water drainage infrastructure in the vicinity of the site is shown in Figure 3-7 below, with the full drawing included in Appendix B.

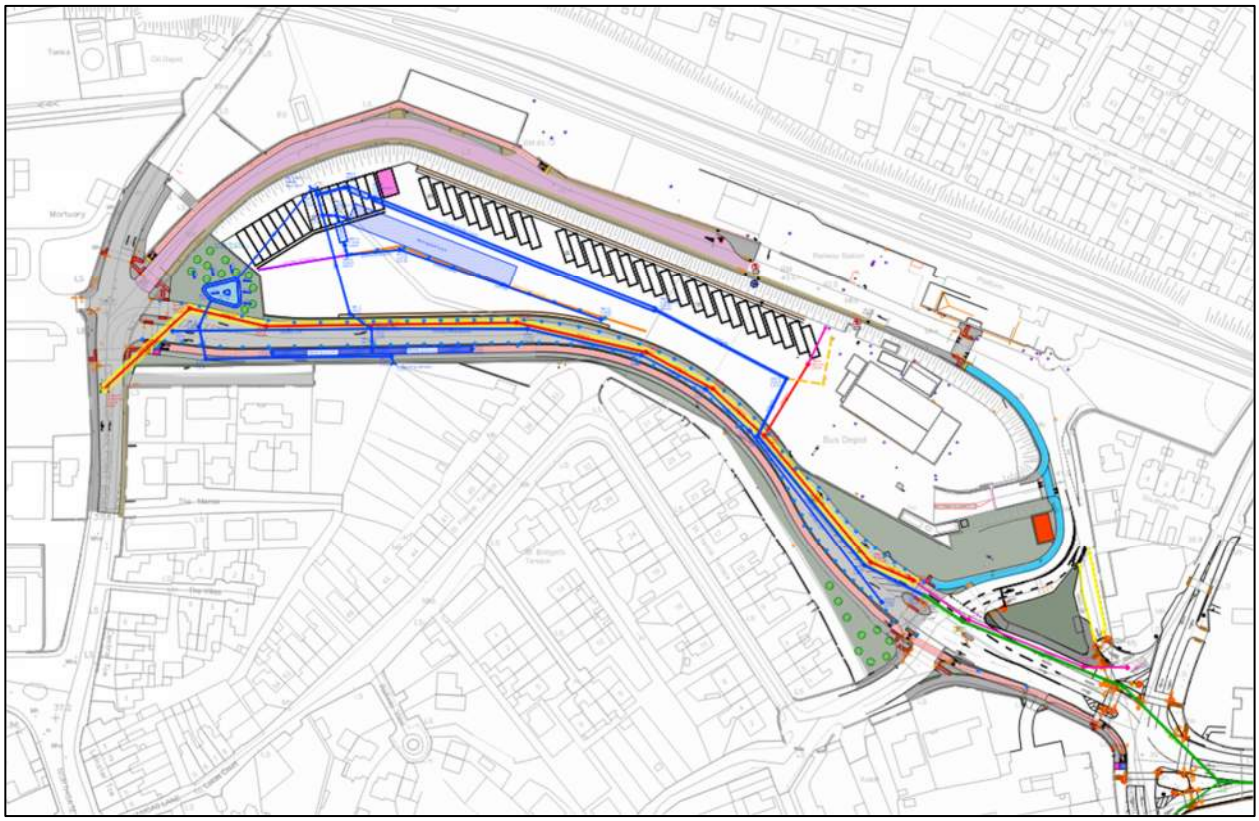


Figure 3-7: Proposed Surface Water Infrastructure.

The proposed storm water drainage system has been revised to accommodate rainfall run-from events up to and including 1 in 100 year return period. A hydrobrake will be installed at the outfall to limit flow to the Qbar greenfield runoff rate, representing the mean annual peak flow from the undeveloped site.

Qbar reflects the long-term average response of the natural catchment and is significantly lower than the peak runoff generated during design storm events (e.g. 1-in-30 year or 1-in-100 year storms). By limiting post-development discharge to this rate, the development is prevented from releasing runoff at rates exceeding the natural greenfield condition.

Restricting discharge to the Qbar greenfield rate results in post-development peak flows that are lower than the undeveloped peak flow for all storm events exceeding the mean annual event. This provides hydraulic betterment in terms of peak discharge and therefore will not increase downstream flood risk.

Further detail on the proposed storm water drainage system is provided in the accompanying Engineering Planning Report.

3.10.2 RFI Response in Relation to Exceedance Events

Item 1 of the RFI prepared by ACP and reference in Section 1.1, expresses a concern that *"during exceptional events … water levels may overtop the discharge control (hydrobrake) and result in short-term uncontrolled flows towards the culvert draining west under Southern Station Road, towards an area that is noted to be prone to flooding under the Shannon Catchment Flood Risk Assessment and Management Study."*

Response: The proposed storm water drainage system will now cater for storm events up to and including the 1 in 100 year (plus climate change). The proposed hydrobrake will limit outflow from the storm network to the Qbar greenfield runoff rate which will reduce the peak runoff rate entering the culvert for all storm events exceeding Qbar and will therefore not exacerbate any downstream flood risk.

3.11 Fluvial Flooding

Fluvial flooding is the result of a river exceeding its capacity and excess water spilling out onto the adjacent floodplain.

3.11.1 Catchment Flood Risk Assessment and Management Study (CFRAMS) Mapping

The CFRAMS is an OPW led national programme which seeks to identify and map potential existing and future flood hazard in areas at significant risk from flooding. It also aims to identify flood relief measures and prepare Flood Risk Management Plans for these areas.

The site of the proposed development is located in an area which has been assessed as part of the Shannon CFRAM Study (UoM 25 and 26). The OPW has published detailed flood hazard mapping for the area based on results from the CFRAMS. This includes flood extent and flood depth mapping for a number of return periods for fluvial and coastal flood events. The CFRAMS assessment in this area is based on hydraulic modelling of the River Shannon and associated tributaries.

Figure 3-8 below shows the CFRAMS fluvial flood extent adjacent to the site. Full CFRAMS maps for the area are included in Appendix C of this report.

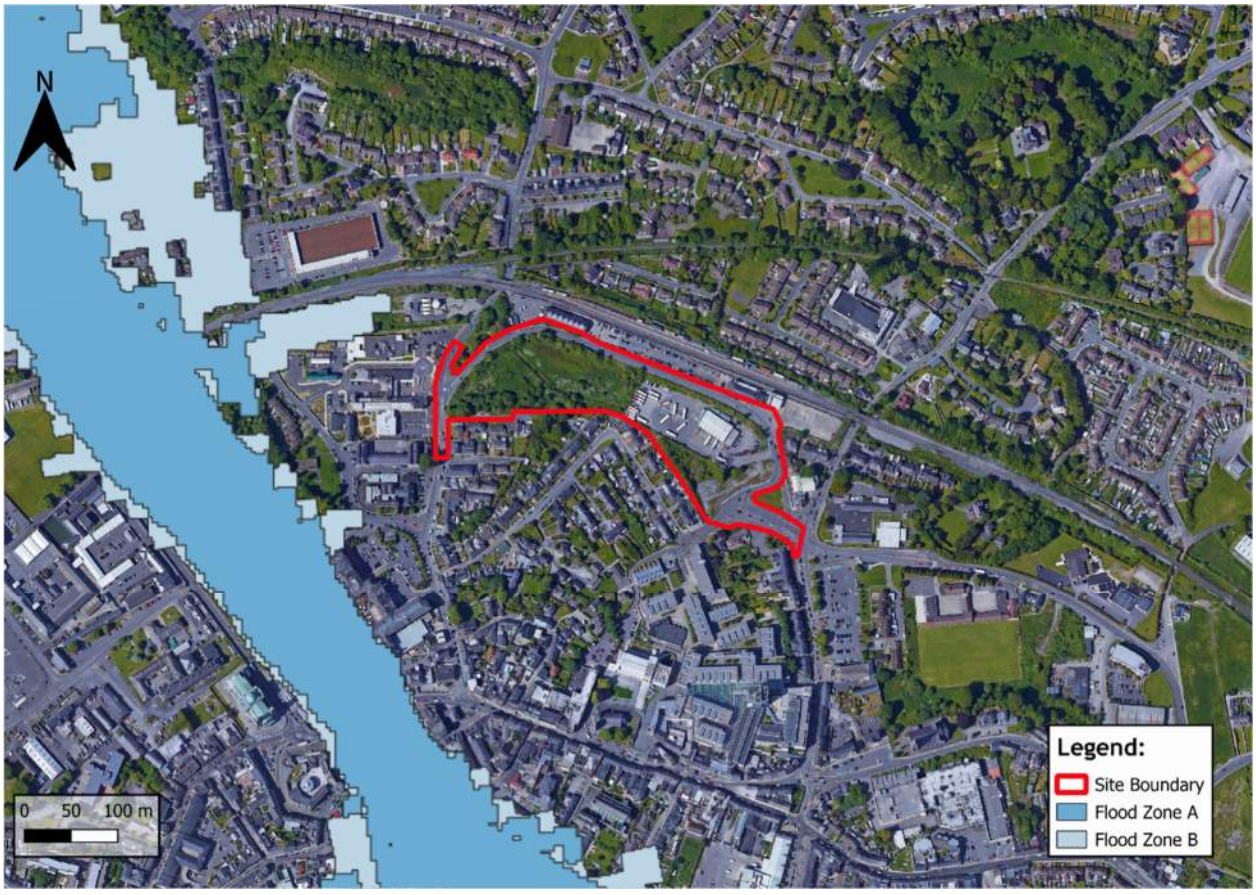


Figure 3-8: Extract from the CFRAMS fluvial map for the area (site indicated in red)
Maps available: http:// http://www.floodinfo.ie/map/floodmaps/

Examination of Figure 3-8 reveals that the site is outside of CFRAMS Flood Zones A and B for fluvial flooding.

3.12 Coastal Flooding

Coastal flooding results from sea levels which are higher than normal and result in sea water overflowing onto the land. Coastal flooding is influenced by the following three factors which often work in combination: high tide level, storm surges and wave action.

Examination of CFRAMS coastal flood extent mapping and the National Coastal Flood Hazard Mapping (NCFHM) does not reveal any coastal flood risk to the site.

3.13 Existing Flood Defences

The recently completed Athlone Flood Alleviation Scheme (FAS) saw the installation of flood walls and raised embankments along the River Shannon.

3.14 Athlone Town Plan 2014 – 2020

A review of the WCC Development Plan 2021-2027 was carried out with regards to flood risk. A Strategic Flood Risk Assessment (SFRA), prepared as part of the WCC CDP, includes Flood Zone mapping for the area and highlights some areas of flood risk concern associated with the nearby River Shannon.

The town of Athlone has not been included within the SFRA, as a separate local area plan for this area is proposed, which will include Flood Mapping. However, as mentioned in Section 2.3, this plan has not yet been published. Typically Development Plan and Town Plan SFRAs rely heavily on CFRAMS mapping when delineating flood zones.

3.15 Estimate of Flood Zone

PUNCH Consulting Engineers has reviewed the available information as outlined in the above sections and concluded that the site is located within Flood Zone C and is therefore at low risk of flooding.

3.16 Sequential Approach

"The Planning System and Flood Risk Management" Guidelines published by the OPW set out a sequential approach to managing flood risk and to avoid development in areas that are at risk. A graphical representation of the Sequential Approach is included in the guidelines and is shown here as Figure 3-9.

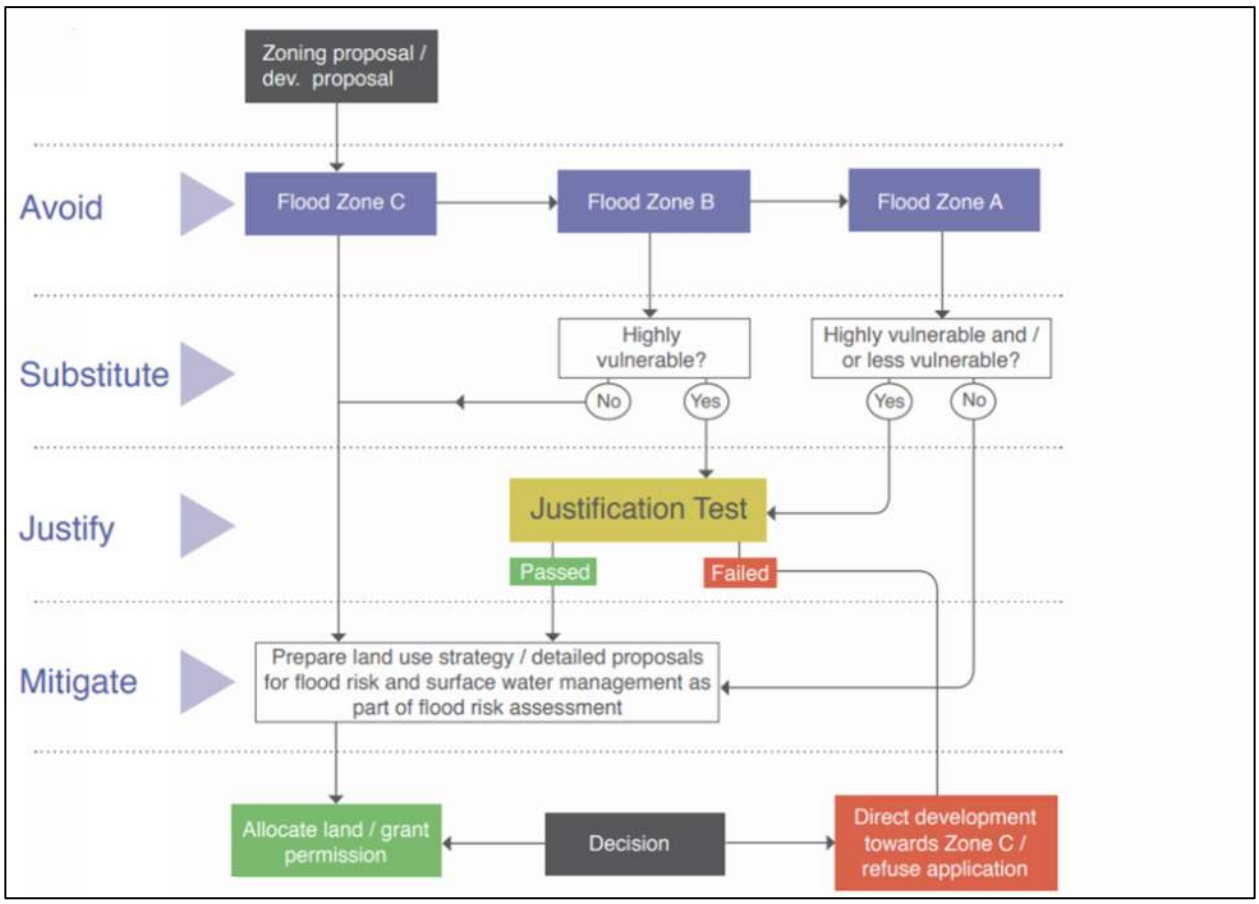


Figure 3-9: Graphical Representation of the Sequential Approach (The Planning System and Flood Risk Management" Guidelines 2009[3])

Given that the site is wholly located within Flood Zone C, the development is deemed appropriate when examined using the sequential approach shown above.

[3] The Planning System and Flood Risk Management Guidelines 68fb690f-3c30-4649-a788-1b5129b3b610.pdf (www.gov.ie)

4 Conclusions

PUNCH Consulting Engineers was appointed to carry out a Site-Specific Flood Risk Assessment (SSFRA) for the site of a new link road and bus parking area adjacent to Southern Station Road, in Athlone, County Westmeath. This SSFRA report has been prepared in response to Item 1 of a Request for Further Information (RFI) prepared by An Coimisún Pleanála (ACP) for Case No. ACP-322958-25, dated 5th January 2026.

The assessment is carried out in full compliance with the requirements of "The Planning System & Flood Risk Management – Guidelines for Planning Authorities" published by the Office of Public Works (OPW) and the Westmeath County Council County Development Plan 2021-2027.

A review of the flood risk in the area was carried out as the site is located near the River Shannon.

Flood Maps produced as part of the CFRAMS, were consulted to establish the Flood Zone. It was determined that the proposed development site is located in Flood Zone C.

The proposed development is at a low risk of flooding and will not increase the risk of flooding to any adjacent or nearby areas.

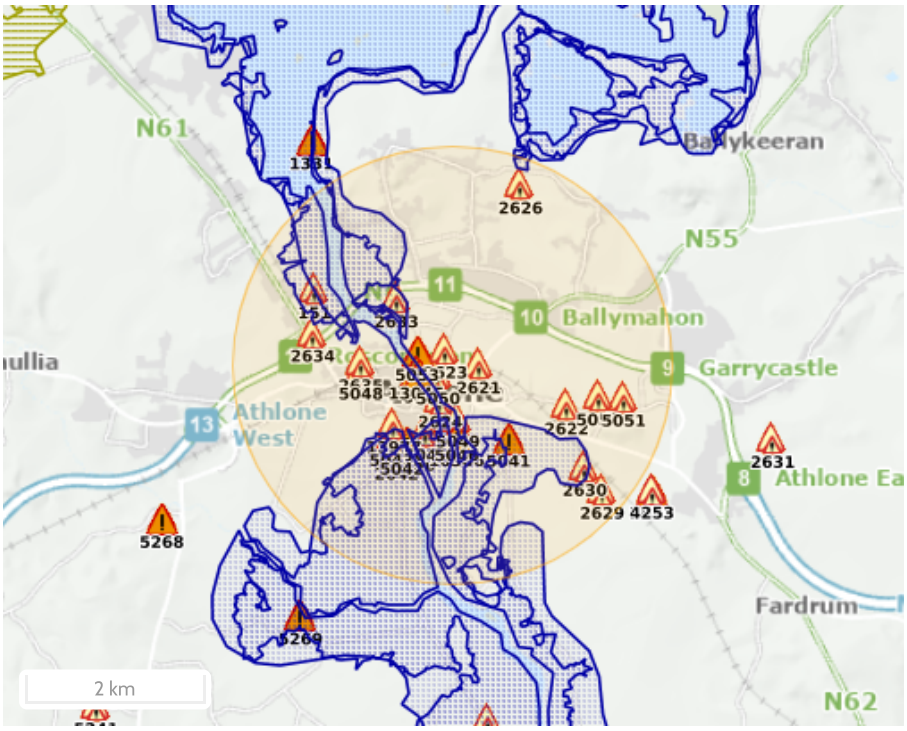
Appendix A OPW Historic Flood Events Record

Past Flood Event Local Area Summary Report

OPW Oifig na nOibreacha Poiblí Office of Public Works

Report Produced: **27/2/2026 9:11**

This Past Flood Event Summary Report summarises all past flood events within 2.5 kilometres of the map centre.



Map Legend

- Single Flood Event
- Recurring Flood Event
- Past Flood Event Extents
- Drainage Districts Benefited Lands*
- Land Commission Benefited Lands*
- Arterial Drainage Schemes Benefited Lands*

* Important: These maps do not indicate flood hazard or flood extent. Their purpose and scope is explained on Floodinfo.ie

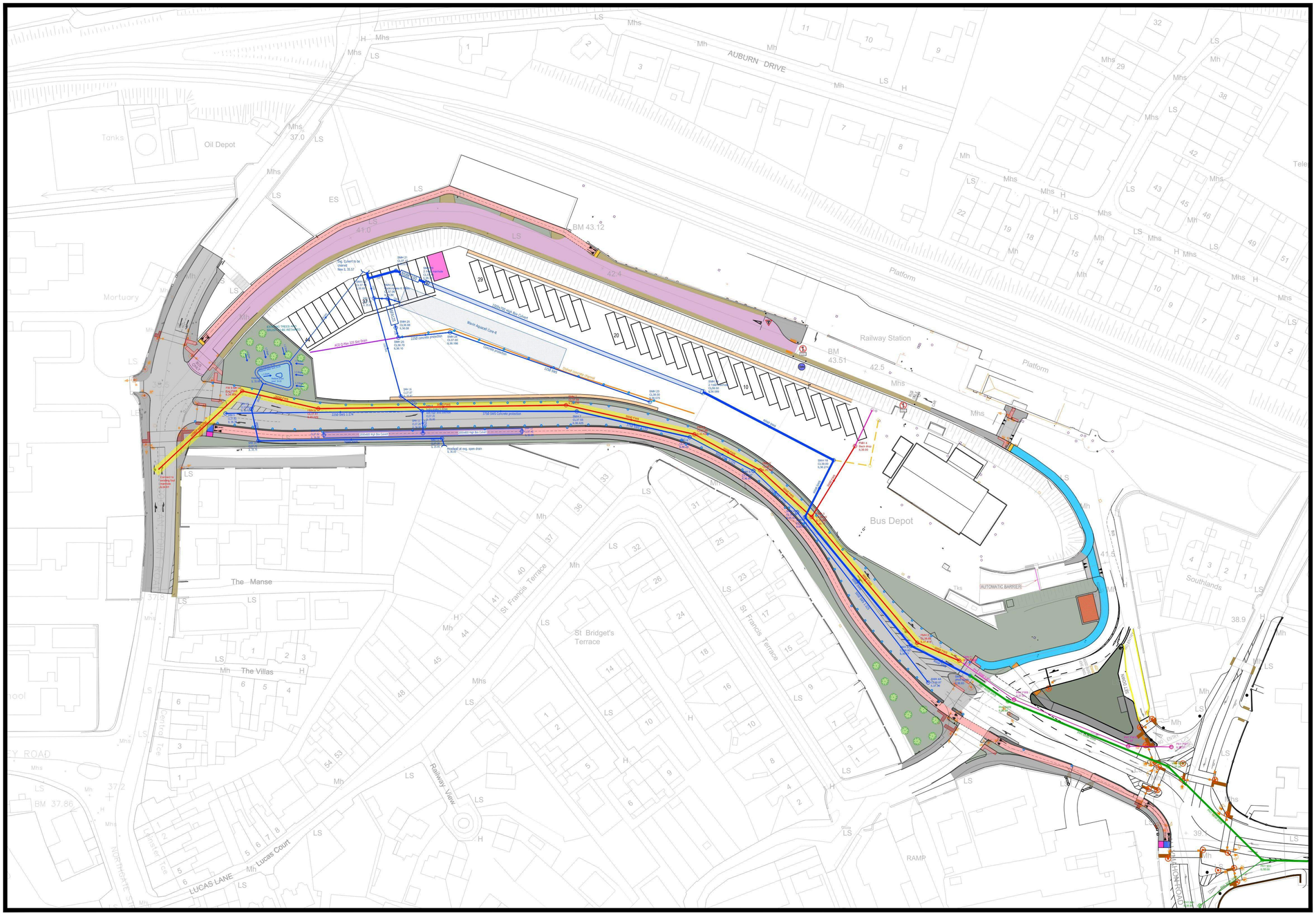
33 Results

	Name (Flood_ID)	Start Date	Event Location
1.	Railway Bridge, Galway Road, Athlone Recurring (ID-5048)	n/a	Approximate Point
	Additional Information: Reports (1) Press Archive (0)		
2.	Shannon Wolfe Tone Terrace, Athlone Recurring (ID-5049)	n/a	Approximate Point
	Additional Information: Reports (2) Press Archive (0)		
3.	Central Terrace, Athlone Recurring (ID-5050)	n/a	Approximate Point
	Additional Information: Reports (1) Press Archive (0)		
4.	Cartron Drive, Athlone Recurring (ID-5051)	n/a	Approximate Point
	Additional Information: Reports (1) Press Archive (0)		
5.	Auburn Heights, Athlone Recurring (ID-5052)	n/a	Approximate Point
	Additional Information: Reports (1) Press Archive (0)		
6.	Coosan Recurring (ID-2626)	n/a	Approximate Point
	Additional Information: Reports (1) Press Archive (0)		

	Name (Flood_ID)	Start Date	Event Location
7.	Shannon Winter 1999/2000 (ID-2)	30/11/1999	Area
	Additional Information: Reports (26) Press Archive (19)		
8.	Shannon December 1954 (ID-3)	01/12/1954	Area
	Additional Information: Reports (4) Press Archive (16)		
9.	Al Golden Island, Athlone (ID-5041)	14/11/2002	Approximate Point
	Additional Information: Reports (3) Press Archive (0)		
10.	Shannon McQuaids Bridge Athlone Feb 1995 (ID-5042)	03/02/1995	Approximate Point
	Additional Information: Reports (2) Press Archive (0)		
11.	Shannon Clonown Road Athlone Feb 1995 (ID-5043)	03/02/1995	Approximate Point
	Additional Information: Reports (2) Press Archive (4)		
12.	Shannon McQuaids Bridge, Athlone Feb 2002 (ID-5044)	11/02/2002	Approximate Point
	Additional Information: Reports (2) Press Archive (0)		
13.	Shannon Burgess Park, Athlone Feb 2002 (ID-5046)	13/02/2002	Approximate Point
	Additional Information: Reports (2) Press Archive (0)		
14.	Shannon Deerpark, Athlone Feb 2002 (ID-5047)	01/02/2002	Approximate Point
	Additional Information: Reports (2) Press Archive (0)		
15.	Marine View, Athlone Feb 2003 (ID-5053)	28/02/2003	Approximate Point
	Additional Information: Reports (2) Press Archive (0)		
16.	Shannon Athlone Nov Dec 2006 (ID-10386)	01/11/2006	Approximate Point
	Additional Information: Reports (1) Press Archive (0)		
17.	Railway Bridge, Ballymahon Road, Athlone Recurring (ID-2621)	n/a	Approximate Point
	Additional Information: Reports (1) Press Archive (0)		
18.	Retreat Road, Athlone Recurring (ID-2622)	n/a	Approximate Point
	Additional Information: Reports (1) Press Archive (0)		
19.	Railway Bridge, Athlone Recurring (ID-2623)	n/a	Approximate Point
	Additional Information: Reports (1) Press Archive (0)		
20.	Shannon Strand, Athlone Recurring (ID-2624)	n/a	Approximate Point
	Additional Information: Reports (2) Press Archive (0)		
21.	Shannon Deerpark, Athlone Recurring (ID-2625)	n/a	Approximate Point
	Additional Information: Reports (2) Press Archive (0)		
22.	Al Derries Recurring (ID-2629)	n/a	Approximate Point
	Additional Information: Reports (2) Press Archive (0)		
23.	AL Loughdonning Recurring (ID-2630)	n/a	Approximate Point
	Additional Information: Reports (3) Press Archive (0)		
24.	Shannon, Priory Park, Athlone Recurring (ID-2633)	n/a	Approximate Point
	Additional Information: Reports (2) Press Archive (0)		
25.	Shannon Gallows Hill, Athlone Recurring (ID-2634)	n/a	Approximate Point
	Additional Information: Reports (1) Press Archive (0)		

	Name (Flood_ID)	Start Date	Event Location
26.	Shannon Iona Park Athlone Recurring (ID-2635) **Additional Information:** Reports (1) Press Archive (0)	n/a	Approximate Point
27.	Shannon Cloonown Road, Athlone Recurring (ID-2642) **Additional Information:** Reports (3) Press Archive (0)	n/a	Approximate Point
28.	Flooding at Athlone on 01/12/2015 (ID-13206) **Additional Information:** Reports (0) Press Archive (0)	01/12/2015	Approximate Point
29.	Flooding at Athlone on 31/01/2014 (ID-13045) **Additional Information:** Reports (0) Press Archive (0)	31/01/2014	Approximate Point
30.	Shannon flood extents 30th Nov 2009 (ID-10700) **Additional Information:** Reports (5) Press Archive (0)	20/11/2009	Approximate Point
31.	Shannon Athlone Winter 1994/95 (ID-1332) **Additional Information:** Reports (4) Press Archive (6)	01/12/1994	Approximate Point
32.	Flooding at Athlone, Clonown Road on 01/11/2020 (ID-13977) **Additional Information:** Reports (0) Press Archive (0)	01/11/2020	Approximate Point
33.	Shannon North of Athlone Recurring (ID-151) **Additional Information:** Reports (1) Press Archive (0)	n/a	Approximate Point

Appendix B Proposed Drainage Layout



KEY:

- PROPOSED STORM SEWER
- PROPOSED FOUL SEWER
- PROPOSED ROAD GULLY
- PROPOSED SLOT CHANNEL
- PROPOSED DISHED CONCRETE CHANNEL
- PROPOSED STORM & FOUL PCC MANHOLE D400 COVER
- UISCE EIREANN EASEMENT
- EXISTING STORM SEWER
- EXISTING PHASE1 STORM SEWER
- EXISTING FOUL SEWER

REV.	AMENDMENT	BY	DATE
PL3	LINK ROAD ATTENUATION AMENDED	KL	23.03.26
PL2	ATTENUATION AMENDED	KL	25.09.25
PL1	CHANGE OF TITLEBLOCK TEMPLATE	SMD	30.06.25

DRAWN:	KL	TECH. CHECK:	KF
SCALE @ A0:	1:500	ENG. CHECK:	SS
DATE:	09.06.21	APPROVED:	FF
STAGE:	PLANNING		

JOB TITLE: ATHLONE LINK ROAD

DRAWING TITLE: DRAINAGE LAYOUT

CLIENT: WESTMEATH COUNTY COUNCIL

DRAWING No: 120278-501

REV: PL3

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Appendix C CFRAMS Mapping

202205 202705 203205 203705

242617

BOGGANFIN

07MSH02297

Shannon (River)

07MSH01826

Athlone Canal

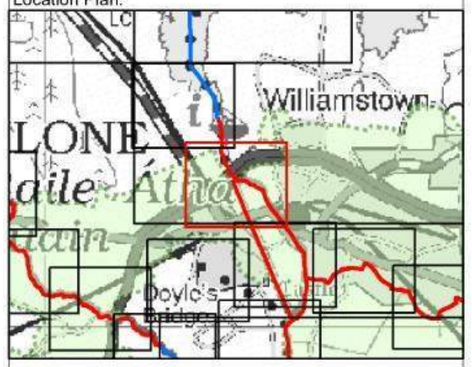
Shannon (River)

242117

Node Label	10% AEP		1% AEP		0.1% AEP	
	Water Level (mOD)	Total Flow (m^3/s)	Water Level (mOD)	Total Flow (m^3/s)	Water Level (mOD)	Total Flow (m^3/s)
07MSH02297	36.34		36.92		37.37	
07MSH01826	36.32		36.89		37.33	

0 50 100 200 300 400 500 Meters

Location Plan:



Legend:

- Nodes
- Model Reach
- AFA Boundary
- Flood Defence: Wall
- Flood Defence: Embankment
- Defended Area

10% AEP Fluvial Flood Extent
(1 in 10 chance in any given year)

1% AEP Fluvial Flood Extent
(1 in 100 chance in any given year)

0.1% AEP Fluvial Flood Extent
(1 in 1000 chance in any given year)

IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.

The Office of Public Works
Jonathan Swift Street
Trim
Co. Meath
C15 NX36

Merrion House
Merrion Road
Dublin 4
D04 R2C5

Project:	SHANNON CFRAM STUDY
Map Type:	EXTENT
Source:	FLUVIAL
Area:	ATHLONE
Scenario:	EXISTING
Drawn by: EF	Date: JUNE 2016
Checked by: AC	Date: JUNE 2016
Reviewed by: MC	Date: JUNE 2016
Approved by: PS	Date: JUNE 2016
Map Number:	S2526ATN_EXFCD_F1_04
Sheet: 4 of 25	Revision: 0
Map Scale: 1: 5000	Plot Scale: 1:1 @ A3