

Appendix 2C

Public Information Day No.1 & 2 – Brochure

WHAT HAPPENS NEXT?

All comments received in response to this Public Information Event will be considered by the OPW and will be taken into account in the preparation of the first stage in the Lower Lee (Cork City) Flood Relief Scheme (Including Blackpool And Ballyvolane) Environmental Impact Assessment and the Engineering Study.

The Environmental Impact Assessment and Engineering Study for the Lower Lee (Cork City) Flood Relief Scheme will be delivered in the following Stages:

Environmental Impact Assessment			Engineering Study	
Stage I	Part 1	Constraints Study (<i>this stage</i>)	Stage I	Scheme Development
	Part 2	Screening for Appropriate Assessment		Data Gathering and Surveying
Stage II	Part 1	Environmental Assessment of Viable Options		Hydrology Study & Hydraulic Modelling
	Part 2	Appropriate Assessment		Site Investigations
Stage III		Environmental Impact Statement		Flood Risk Assessments
Stage IV		Public Exhibition		Flood Risk Management Options
				Cost Benefit Analysis
				Selection of Preferred Option
				Flood Risk Management Plan
			Stage II	Public Exhibition
			Stage III	Detailed Design
			Stage IV	Construction

YOUR OPPORTUNITY TO TAKE PART

The Office of Public Works wishes to consider all viewpoints in relation to the Study Area being examined. This is your opportunity to take part at the early stages of the planning of the Flood Relief Scheme. Time spent communicating your views to the Office of Public Works is appreciated.

The general public and all interested parties are invited to give their opinions on the Study Area. Please examine the Study Area shown overleaf and let your views be known by either completing the enclosed questionnaire or writing to the address below, giving your comments. Your opinion will be appreciated and given full consideration.

Completed questionnaires may be handed in at the exhibition or posted to the address below using the stamped and addressed envelope provided, by **Friday 26th July 2013.**

FURTHER INFORMATION

All queries, questionnaires and comments in relation to this project can be addressed to:

Contact Name: Brian Keville

Contact Title: Project Manager

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LOWER LEE (CORK CITY)
FLOOD RELIEF SCHEME
(INCLUDING BLACKPOOL
AND BALLYVOLANE)

PUBLIC CONSULTATION

JULY 2013

ARUP

JBA
consulting



RYAN HANLEY



Ryan Hanley in association with McCarthy Keville O'Sullivan has been appointed by the Office of Public Works to carry out an Environmental Assessment of the proposed Lower Lee (Cork City) Flood Relief Scheme.

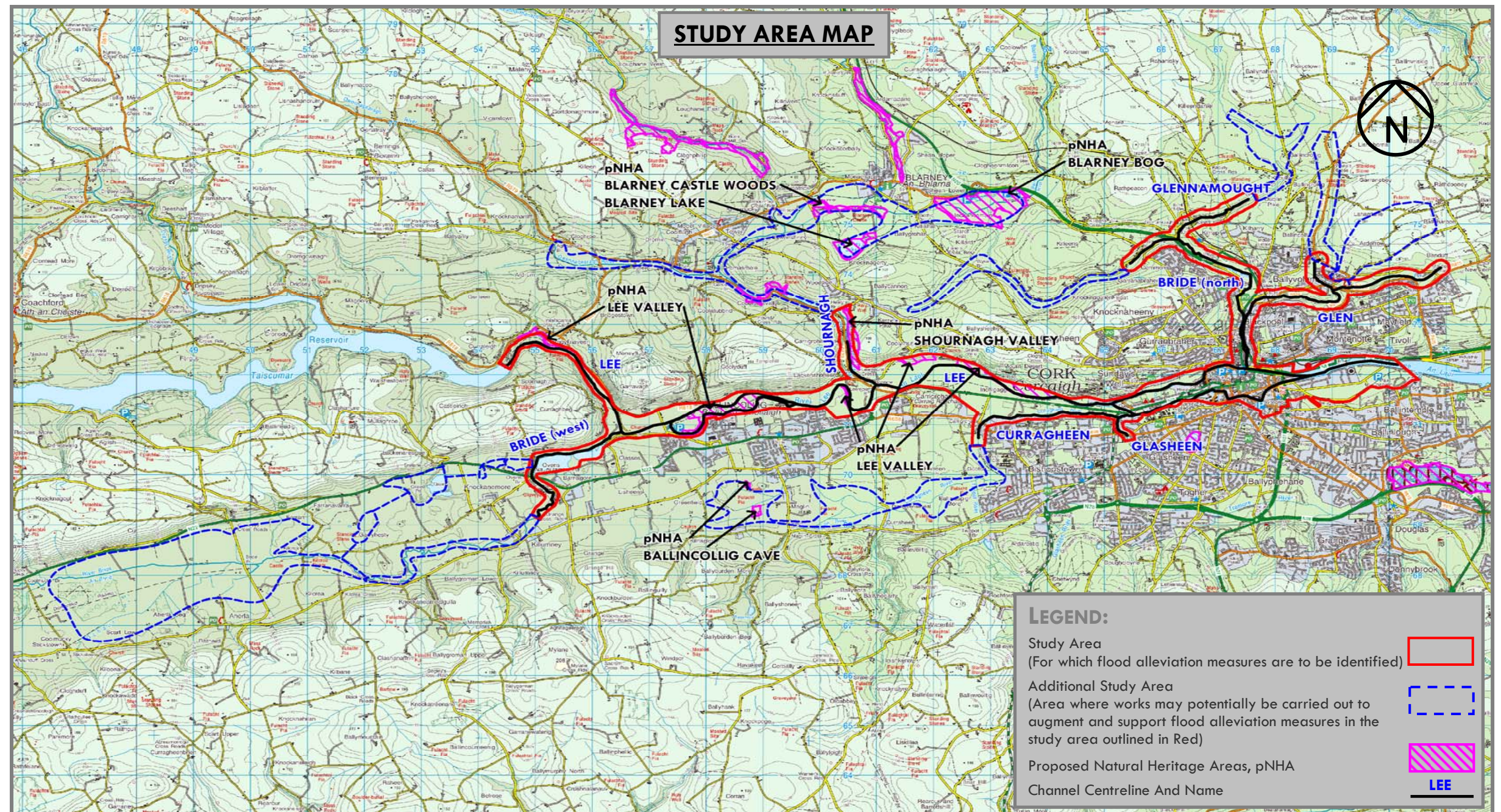
This is the first public consultation; its objective is to seek initial views from the public in relation to the key issues that the study should address, and highlight points of local importance that may constrain the design of potential flood alleviation measures.

PURPOSE OF THE PROJECT

The purpose of the Lower Lee (Cork City) Flood Relief Scheme is to assess and develop a viable, cost-effective and sustainable Flood Relief Scheme to alleviate flooding in Cork City, based on preferred options already identified in the Lee CFRAM Study. The Blackpool and Ballyvolane areas on the River Bride (north) will also be assessed for flood relief measures as part of the Flood Relief Scheme.

CURRENT POSITION

Following on from the Lee CFRAMS and the publication of the draft CFRMP, the next stage is the commencement of the Lower Lee Flood Relief Scheme. The first phase of the scheme is the identification of a study area and the preparation of a Constraints Study as part of the Environmental Impact Assessment for the scheme. The Study Areas for the project are shown on the map above outlined in red and blue.



WHAT IS A CONSTRAINTS STUDY?

A Constraints study identifies the key environmental issues in a study area which may be impacted upon by possible flood alleviation measures and/ or which may impose constraints on the viability and/ or design of these measures.

ENGINEERING STUDY

An Engineering Study is being advanced in parallel with the Environmental Assessment of the Flood Relief Scheme.

The range of engineering measures typically considered for possible flood alleviation schemes in an Engineering Study include, but are not limited to those listed in the box to the right.

It is not possible at this stage to define the number of scheme options that will require study, although a typical Engineering Study of this nature will identify between three and five viable options.

POTENTIAL FLOOD ALLEVIATION MEASURES (non exhaustive list)

- Do Nothing (i.e., implement no new flood alleviation measures)
- Non-Structural Measures (e.g. flood warning system or individual property protection)
- Relocation of Properties and/or infrastructure
- Reconstruction of Properties and/or infrastructure to a higher level
- Flow Diversion (e.g. river diversion or flood flow bypass channel)
- Flow Reduction (e.g. upstream catchment management or flood storage)
- Flood Containment through Construction of Flood Defences
- Increase Conveyance of Channel (upstream and/or through and/or downstream of the town)
- Sediment Deposition and Possible Sediment Traps
- Pump storm waters from behind flood defences
- For Lower Lee specifically, works to facilitate a revised operating regime for Carrigadrohid and Inniscarra dams for the purposes of flood risk management

WHAT HAPPENS NEXT?

All comments received in response to this Public Information Event will be considered by the OPW and will be taken into account in progressing to the next stage in the Lower Lee (Cork City) Flood Relief Scheme (Including Blackpool And Ballyvolane) Environmental Impact Assessment and the Engineering Study.

The Environmental Impact Assessment and Engineering Study for the Lower Lee (Cork City) Flood Relief Scheme will be delivered in the following Stages:

Environmental Impact Assessment			Engineering Study	
Stage I	Part 1	Constraints Study (<i>complete</i>)	Stage I	Scheme Development (<i>complete</i>)
	Part 2	Screening for Appropriate Assessment (<i>complete</i>)		Data Gathering and Surveying (<i>complete</i>)
Stage II	Part 1	Environmental Assessment of Viable Options (<i>next stage</i>)		Hydrology Study & Hydraulic Modelling (<i>complete</i>)
	Part 2	Appropriate Assessment (<i>next stage</i>)		Site Investigations (<i>complete</i>)
Stage III		Environmental Impact Statement	Flood Risk Assessments (<i>complete</i>)	
			Flood Risk Management Options (<i>complete</i>)	
Stage IV			Cost Benefit Analysis	
			Selection of Preferred Option	
			Flood Risk Management Plan	
			Stage II Public Exhibition	
			Stage III Detailed Design	
			Stage IV Construction	

YOUR OPPORTUNITY TO TAKE PART

The Office of Public Works wishes to consider all viewpoints in relation to the Emerging Preferred Option being proposed. This is your opportunity to take part and make your view and comments known as the Emerging Preferred Option is developed further and before final preferred options is selected. Time spent communicating your views to the Office of Public Works is appreciated.

The general public and all interested parties are invited to give their opinions on the Emerging Preferred Options. Please examine the details of the Emerging Preferred Options shown overleaf, on display at the Public Information Day, and online on the project website (www.lowerleefrs.ie) and let your views be known by either completing the enclosed comment sheet or writing to or emailing the address below, giving your comments. Your opinion will be appreciated and given full consideration.

Completed comment sheets may be handed in at the exhibition or posted to the address below, by Friday 29th August 2014.

FURTHER INFORMATION

All queries and comments in relation to this project can be addressed to:

Contact Name: Brian Keville

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LOWER LEE (CORK CITY)
FLOOD RELIEF SCHEME
(INCLUDING BLACKPOOL
AND BALLYVOLANE)



EMERGING PREFERRED OPTIONS
PUBLIC CONSULTATION

JULY 2014



INTRODUCTION

Ryan Hanley in association with McCarthy Keville O'Sullivan, has been appointed by the Office of Public Works to carry out an Environmental Assessment of the proposed Lower Lee (Cork City) Flood Relief Scheme. The series of measures and options that will make up the proposed flood relief scheme are being developed as part of an Engineering Study being conducted by ARUP and JBA Consulting. This is the second public consultation on the proposed flood relief scheme, and its objective is to inform the public and stakeholders of the progress made since the project commenced, and outline the emerging preferred options for alleviating flooding in the Lower Lee, including Blackpool and Ballyvolane.

PURPOSE OF THE PROJECT

The purpose of the Lower Lee (Cork City) Flood Relief Scheme is to assess and develop a viable, cost-effective and sustainable Flood Relief Scheme to alleviate flooding in Cork City, based on preferred options already identified in the Lee CFRAM Study. The Blackpool and Ballyvolane areas on the River Bride (north) are also being assessed for flood relief measures as part of the Flood Relief Scheme.

CONSTRAINTS STUDY UPDATE

A Constraints Study, identifying the key environmental issues in a study area that may be impacted upon by possible flood alleviation measures and/or which may impose constraints on the viability and/or design of these measures has also now been finalised, and is available on the project website (www.lowerleefrs.ie).

EMERGING PREFERRED OPTIONS

An ongoing project Engineering Study being advanced in parallel with the Environmental Assessment of the Flood Relief Scheme, has now identified Emerging Preferred Options for the Lower Lee, Blackpool and Ballyvolane. The Options are listed in the boxes to the right, for each section of the study area.

EXAMPLES OF PROPOSED MEASURES – BEFORE AND AFTER VIEWS



Existing view looking south over boardwalk at end of Grand Parade towards Sullivan's Quay



Proposed view of flood defence walls doubling as public seating with "tilt-up" or demountable flood barriers to fill gaps



Existing view looking northwest from Lavitt's Quay towards Christy Ring Bridge



Proposed view of new quay defence wall and solid bridge parapet



Existing view from Cork College of Commerce on Union Quay looking north towards pedestrian bridge



Proposed view of new flood defence walls to be closed off with flood gates when necessary

LOWER LEE - EMERGING PREFERRED OPTION

- a) Detailed Flood Forecasting System
- b) Flood Warning System (public alerts)
- c) Further Optimised Dam Operating Procedures
- d) Creation of Upstream Washlands
- e) Local Conveyance Improvements and Direct Defences at Inniscarra Bridge
- f) Local Defences at Inchagaggin
- g) Flow Reduction Structure on South Channel
- h) Direct Defences on Curaheen, Glasheen, North & South Channels
- i) Flood Gates (at some footbridges and boardwalk locations)
- j) Possible Raising of Vincent's Pedestrian Bridge & Cornmarker Street Footbridge
- k) Localised Surface Water Pumps

BLACKPOOL - EMERGING PREFERRED OPTION

- a) Channel Clearance and Maintenance
- b) Direct Defences from Upstream of Northpoint Business Park to Fitz's Boreen
- c) Replacement of some Bridges at Dulux and Fitz's Boreen
- d) Sedimentation Area at Dulux
- e) Flood Defence Walls at Orchard Court
- f) Removal of Pedestrian Bridge & Replacement of Road Bridge at Orchard Court
- g) Replacement/Upgrading of Culvert between Orchard Court & Blackpool Church
- h) Infilling of Open Channel Section at Blackpool Church
- i) Cleaning & Sealing of Culvert Downstream of B'pool Church
- j) Realignment of Bride/Glin/Kiln Culvert at Madden's Buildings
- k) Localised Surface Water Pumps

BALLYVOLANE - EMERGING PREFERRED OPTION

- a) Replacement of Existing Trashescreen
- b) Management of Residual Overland Flood Risk
 - i. Re-grading of Ballyhooley Road in vicinity of Mervue Lawn
 - ii. Re-grading of access road into Mervue Lawn
 - iii. Removal of boundary wall to northeast of Kempton Park
 - iv. Re-grading of Kempton Park
 - v. Creation of new swale to east of Leeds Park and Park Court
 - vi. Replacement of manhole covers with slotted gratings