Cork Chamber
Advancing business together

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OPW Vote Section,
Department of Public Expenditure and Reform,
Government Buildings,
Upper Merrion St,
Dublin 2,
D02 R583

27th February 2020

Re: River Bride (Blackpool) Drainage Scheme – Public Consultation Notice

To Whom It Concerns,

Cork Chamber is the leading business organisation in the Cork region proactively working to identify and progress developments that are facilitative of sustainable economic development. Representing an employer base of close to 1,200 businesses and over 100,000 employees across the region, Cork Chamber is committed to advancing a strong, innovative and progressive economy. As such, Cork Chamber lends its strong support for the urgent completion of the River Bride (Blackpool) Drainage Scheme.

Now more than ever and in the context of a changing climate and increasingly disturbed weather patterns, it is essential that this critical drainage scheme is undertaken and completed without further delay. Over the last two decades, Cork has incurred an estimated €150m in damages from the 2004, 2009 and 2014 flood events, with associated uncertainty and difficulties for businesses and homeowners to secure insurance, as is the case for Blackpool residents and business owners alike. A major flood event is catastrophic for communities and businesses alike. Apart from the financial implications to the local, regional and national economy, there are also health and wellbeing considerations that must be considered. Any further delay in actioning this scheme is unnecessarily increasing the stress, difficulty and uncertainty for residents and business in this area.

Cork is growing at pace, with over 20% of Cork City's footprint to be built in the next 20 years. We need to be smart and strategic in how we grow, to learn from past experiences, to be visionary and proactive. It is crucial that progress is enabled and that we can build on the opportunities. Blackpool as a City district could reflect perfectly the ambition of Project Ireland 2040 for compact and sustainable growth. However, to achieve this Blackpool must be supported and underpinned with strong foundations. One such piece of critical enabling infrastructure is the River Bride (Blackpool) Drainage Scheme. Investment into the village has been stilted due to a lack of certainty and access to affordable insurance, and the community has become disjointed due to the high vacancy rates which persist. The scheme is a crucial step in underpinning sustainable growth for a thriving community and thriving economy.

At national, regional and local level, resilience building to the effects of flood events is key, and we must integrate the principles of adaptation in planning and infrastructural investment. In 2019, Cork City Council published the Cork City Council Climate Change Adaptation Strategy 2019 – 2024. This adaptation strategy forms part of the National Adaptation Framework (NAF), published in response to the provisions of the Climate Action and Low Carbon Development Act 2015. As adaptation focuses on the expected impacts and the practical actions that society need to take in order to manage the risks and protect communities, it is crucial that Government progress these plans to completion to fortify and support this community.

Finally, this scheme, once completed will have enormous benefits for the entire community, bringing confidence to the area, and re-energising the public realm. The flood prevention measures will be a game-changer in attracting investment and will give confidence for investors that homes, and business will no longer have to live with the threat of flooding.

We emphasise the value of public consultations and welcome future opportunities to engage on this and associated topics. We highlight the opportunity to engage with private sector business representation and believe there are practical benefits in this approach. We believe that this is instrumental to facilitate fully representative discussions.

I look forward to your response.

Yours Sincerely,

Conor Healy
CEO

From: [redacted]
To: Per BlackpoolSchemeConsultation
Subject: Submission on the River Bride (Blackpool) Drainage Scheme (Scheme Reference: DPE63-18-2018)
Date: Thursday 27 February 2020 12:51:08

[resend with inclusion of postal address]

To whom it may concern

Submission with respect to the likely effects on the environment of the scheme

The proposed River Bride Drainage Scheme would include construction of direct flood defences comprising concrete flood walls and culverts on a section of open channel. There is a rich biodiversity in this river channel with many native and legally protected birds, otters, and other wildlife living along the river banks, as well as a wealth of natural native trees and undergrowth which have intrinsic value, both as a vital oasis of natural biodiverse habitat supporting the local ecosystem for urban wildlife, and also as sensory amenity supporting local residents' sense of connection to nature and the consequent benefits that brings to their mental and physical health. To rip out the trees and bushes and cover the river over with a culvert will completely deaden and destroy the valuable biodiverse riverine habitat, deprive the local community of their connection and access to nature, and therefore be to the detriment of the urban environment because of these factors.

I also have serious concern over the proposed installation of sediment traps. In the past these traps have actually been the cause of flooding, rather than part of the solution, because they have snagged fallen branches and objects flowing downriver and by aggregate caused dams to form in the course of the river, causing water build up. These sediment traps should be omitted from any future proposals to prevent the formation of dams in the river composed of collecting floating materials.

The proposal to culvert the river is outdated, superseded thinking and is at odds with current international trends to 'daylight' previously culverted urban rivers to restore them to their natural state (refer the Guardian article "A River Runs Through It: The Global Movement to Daylight Urban Waterways" - https://www.theguardian.com/cities/2017/aug/29/river-runs-global-movement-daylight-urban-rivers).

In light of the Central Government-declared climate & biodiversity emergency, this proposal is clearly the incorrect way to address the flooding issue, it will do more harm than good, and it is counter to stated biodiversity and ecological sustainability goals.

The root cause of the flooding events in recent years can be traced back to alterations to the water course upstream, construction within the floodplain upstream, and indeed to lack of adequate natural or man-made water attenuation measures in residential and rural areas further upstream again. The township of Blackpool and its residents should not now lose out and be deprived of this valuable amenity due to the irresponsible development practices by others upstream, who have benefitted at the expense of those downstream. The root causes ought be acknowledged and rectified, rather than treating the symptoms as this proposal

seeks to do. This is the only way to address the flooding issue in a fair and equitable manner.

All of the points I have made above including the presence of rich biodiversity, native habitat, urban wildlife, the past phenomenon of formation of dams caused by sediment traps and grilles, and the cause-and-effect of past construction in the floodplain as root cause of present-day flooding events, can be verified by reference to local campaigner Chris Moody's twitter account (refer https://twitter.com/ChrisMoodyDraws).

regards,

Karl Shane Dískín ARB MRIAI

[redacted]

From: [redacted]
To: Per BlackpoolSchemeConsultation
Subject: Culvert at Orchard Park
Date: Thursday 27 February 2020 12:44:45

I am a retired engineer with experience over decades in storm water design in local authorities.

I am surprised to see a proposal to culvert the natural channel at Orchard Park Closed culverts are hostile to wildlife and difficult and hazardous places if anything goes wrong.

John Lynch

I refer to the Greater Dublin Regional Code of Practice V6.0

3.9. Streams, Rivers etc:
3.9.1. In general watercourses **are not** to be culverted or piped. They should remain open in their natural valley, which should be incorporated into the public open space. Culverting should be confined to road crossings and should be sufficiently large to prevent blockage, allow runoff from a one in a hundred rain event and to allow for man entry for maintenance purposes. Permission must be obtained from the OPW (under a section 50 licence) to construct any culvert or bridge.

3.9.2. All proposed structures must be set back from the edge of any watercourse to allow access for channel cleaning/maintenance. A 15 meters wide riparian buffer strip each side of the watercourse is required. However, in dense urban areas the width of the riparian buffer strip is to be agreed with the Local Sanitary Authority.

From: [redacted]
Subject: Blackpool FRS Submission
Date: Thursday 27 February 2020 12:28:22

Submission:
Brian Russell
[redacted]

Dear Sir/Madam

I wish to state my objection to the culvertinf of 350m of the River bride in Blackpool as proposed under the Blackpool FRS.

To the best of my knowledge culverting is no longer considered to be best practice in flood management situations.

I refer you to the Bolton municipal council culvert policy

https://www.bolton.gov.uk/downloads/file/227/bolton-mbc-culvert-policy

This document states that maintaining open culverts should be maintained as a priority both for flood control and environmental protection. Culverting should only be considered as a last resort. Blackpool village has the potential to be regenerated into a vibrant and historic urban centre for cork and the River bride can form a central pillar to that. The report on the scheme itself acknowledges that Culverting will have a detrimental effect on biodiversity within the river.

The proposed works should be redesigned to be more sympathetic to environmental concerns. I would also expect that a long term maintenance plan for culvert repair and trash screen clearance be modelled to demonstrate the long term cost of such a scheme in preference to other potential options which maintain an open water course. I do recognise the requirement for flood defences in Blackpool and the impact they have on the village however this proposal does not meet all requirements for the project.

Thanks and regards

Brian Russell

From: [redacted]
[redacted]
Subject: River Bride Culvert
Date: Thursday 27 February 2020 12:23:52

Dear Minister,

I wish to declare my objection to the planned culvert of the River Bride. The Minister has to make a decision on the likely effect of the scheme on the environment and I'm sure, at this stage in our understanding of environmental systems the Misnister will not be able to conclude that such invasive changes to the river will not have ecological impacts.
It is important to bring to attention to the Minister that 'Nature' and 'the environment' do not soley exist within the lists of Annex I and II species, nor are habitats outside the SPA/SAC impervious to damage and disruption.

At a time where individuals and communities are giving energy to improving their relationship with the environment, recognising the importance for human physicial and mental health of a in-tact ecosystem in which to live.
The continuous damage to local habitats communicates that the State does not recognise the environment beyond what they have been contracted to through EU Directives and shows a lack of competency in understanding of the area in which they are supposed to be an authority.

I look forward to the report issued on this matter and to following how a decision is made on this important site.

Kind Regards,
Mary

From: [redacted]
To: Per BlackpoolSchemeConsultation
Subject: Submission
Date: Thursday 27 February 2020 12:22:43

To Whom It May Concern:
The culverting of 350m of the River Bride will remove a unique urban amenity in an area of the city that is ripe for regeneration. It will have a significant impact on the natural environment, destroying the natural habitats for the wildlife, flora and fauna.
International thinking on flood relief is moving away from hard engineering solutions and allowing "room for the river". Blocking access to the River Bride seems contradictory to that wisdom.
Yours sincerely,
Kathriona Devereux

From: [redacted] meConsultation
Subject: Submission
Date: Thursday 27 February 2020 12:00:40

Hello,

I strongly believe this project should be reconsidered from culverting - an alternative that open up the natural elements of the area for better public access while protecting the area from flooding etc.

Thank you
Rory O'Connor

From: [redacted]
To: Per BlackpoolSchemeConsultation
Subject: Objection to the River Bride (Blackpool) Drainage Scheme
Date: Thursday 27 February 2020 11:57:52

To whom it may concern,

I am writing to you in relation to the public consultation on the River Bride (Blackpool) Drainage Scheme.

I object to the scheme on both a personal level, being a resident in the Blackpool area of Cork city, and on a professional basis, being qualified in environmental design and environmental management as well as running a professional practice in eco/sustainable design in Cork City (anois).

I object to the proposed scheme based on the significant environmental impact it will have on the river's and riverside's fauna and flora. The assessed impact is deemed to be "permanent loss of habitat cannot be mitigated" particularly for otter (which is legally protected in EU Habitats Directives), brown trout and eel. Considering Ireland is facing a biodiversity emergency (declared by both Cork City Council and Dail Eireann and the European Parliament) it is unacceptable to undertake avoidable destruction of the natural environment surrounding the River Bride. Especially considering that Blackpool has very limited natural resources, destruction of the one haven for wildlife in the area will also negatively affect the community, in particular younger generations, having a knock on effect on everyone's mental health.

I object to the destruction of the two foot bridges in Blackpool Retail Park as well as the permanent alteration and destruction to the heritage structures pre-dating 1940's. As highlighted in the report Blackpool has lost too much of its industrial heritage today and the little that remains should be fully protected, valued and celebrated.

I request to refer the scheme back to the OPW for reassessment due to its negative environmental and heritage impacts.

The proposed scheme represents a very outdated means of flood and water management that will not guarantee the eradication of flooding in the Blackpool area. If not maintained correctly (as per the current river curvets & channels which are not properly maintained which has been the cause of flooding previously) the scheme may cause very dangerous flooding episodes. If flood water is tunnelled as proposed it will increase in velocity and potency and will risk breeching the walls, at which point it do more damage than pervious flooding from the current more natural river bed and banks.

The proposed scheme contradicts Cork City Council local area plans for both Blackpool Village 2010 and North Blackpool 2011. These state that the current culverts "is sufficient to deal with 50 year floods." Both plans identify multiply areas suitable for Bird Sanctuary or Biodiversity Parks while the proposed drainage scheme will instead remove all biodiversity along the river bank.

Alternative upstream flood management approaches should be assessed further, e.g. use of the existing flood attenuation lake at Blackpool shopping centre (planning ref: 0326822). The OPW should only undertake measures that meet or exceed international best practice in natural flood management practices that encourage the rewilding of our rivers. This proposed scheme does not meet international best practice. This is not good enough.
In addition, I have serious concerns that the Environmental Impact Assessment Report Non-Technical Summary May 2018, fails to mention the impact the scheme will have on the feeding grounds of birds. It can be seen in the following images there are many different birds that feed on the River Bride that will no longer be able to access the river. I deem this to be totally unacceptable and irresponsible. Future generations will look back in

horror on this scheme.

I also view this scheme as a massive lost opportunity for Blackpool and the city. An alternative more sustainable option would be to celebrate the existence of the River Bride through developing green spaces, walking areas, nature viewing points, recreation spaces, family picnic sites and community seating on its banks, to enable residents and visitors to experience the beauty and magic of nature in their urban environment, in the case of Blackpool an environment of great historical significance for the city of Cork.

This sustainable approach would bring significant added benefits (e.g. mental, physical, emotional) to residents, placing nature at their back door, allowing them to experience its beauty on a daily basis and to reconnect with each other and the local wildlife.

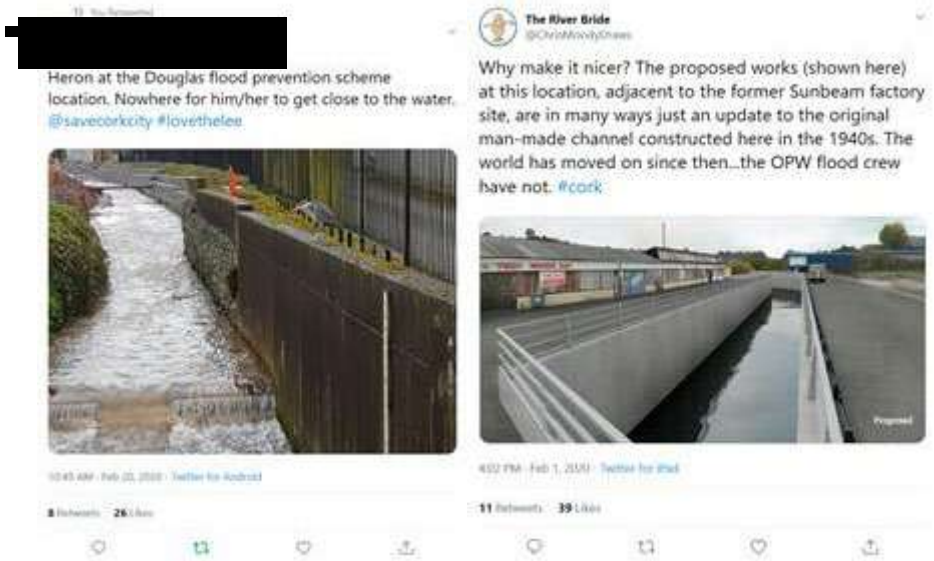
In fact, reimagining Blackpool as a vibrant village on the edge of the city with a beautiful river flowing through it would reap much wider benefits, attracting visitors, potentially placing Cork on a par with other international cities that have used nature to their advantage, working with rather than against the natural world.

I strongly request that you do not go ahead with the scheme, instead pursuing an environmentally sensitive, international best practice solution.

Kind Regards,

Dr Frank O'Connor
[redacted]

Here are the images showing bird life around the river which will clearly be killed off with the proposed scheme.



The River Bride

My el cheapo eBay trail camera has been knocked over and dragged by curious creatures, shat on by birds and fully submerged during high river flows - it's till going strong and delivering little snippets of river life in Blackpool. Filmed near Blackpool Village last year. #cork

10:48 AM · Dec 12, 2019 · Twitter Web App

10 Retweets **49** Likes

The River Bride

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10:48 AM · Dec 12, 2019 · Twitter Web App

10 Retweets **49** Likes

The River Bride

A dipper at Orchard Court, Blackpool yesterday morning. Furious flapping of wings keeps it's plump little body above the water. #cork

12:00 PM · Feb 1, 2020 · Twitter Web App

6 Retweets **34** Likes

The River Bride

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10:48 AM · Dec 12, 2019 · Twitter Web App

10 Retweets **49** Likes

From: [redacted]
[redacted]
Per BlackpoolSchemeConsultation
Subject: Objection to the River Bride (Blackpool) Drainage Scheme
Date: Thursday 27 February 2020 11:49:49

To whom it may concern,

I am writing to you in relation to the public consultation on the River Bride (Blackpool) Drainage Scheme.

I object to the scheme on both a personal level, being a resident in the Blackpool area of Cork city, and on a professional basis, being qualified in environmental design and environmental management as well as running a professional practice in eco/sustainable design in Cork City (anois).

I object to the proposed scheme based on the significant environmental impact it will have on the river's and riverside's fauna and flora. The assessed impact is deemed to be "permanent loss of habitat cannot be mitigated" particularly for otter (which is legally protected in EU Habitats Directives), brown trout and eel. Considering Ireland is facing a biodiversity emergency (declared by both Cork City Council and Dail Eireann and the European Parliament) it is unacceptable to undertake avoidable destruction of the natural environment surrounding the River Bride. Especially considering that Blackpool has very limited natural resources, destruction of the one haven for wildlife in the area will also negatively affect the community, in particular younger generations, having a knock on effect on everyone's mental health.

I object to the destruction of the two foot bridges in Blackpool Retail Park as well as the permanent alteration and destruction to the heritage structures pre-dating 1940's. As highlighted in the report Blackpool has lost too much of its industrial heritage today and the little that remains should be fully protected, valued and celebrated.

I request to refer the scheme back to the OPW for reassessment due to its negative environmental and heritage impacts.

The proposed scheme represents a very outdated means of flood and water management that will not guarantee the eradication of flooding in the Blackpool area. If not maintained correctly (as per the current river curvets & channels which are not properly maintained which has been the cause of flooding previously) the scheme may cause very dangerous flooding episodes. If flood water is tunnelled as proposed it will increase in velocity and potency and will risk breeching the walls, at which point it do more damage than pervious flooding from the current more natural river bed and banks.

The proposed scheme contradicts Cork City Council local area plans for both Blackpool Village 2010 and North Blackpool 2011. These state that the current culverts "is sufficient to deal with 50 year floods." Both plans identify multiply areas suitable for Bird Sanctuary or Biodiversity Parks while the proposed drainage scheme will instead remove all biodiversity along the river bank.

Alternative upstream flood management approaches should be assessed further, e.g. use of the existing flood attenuation lake at Blackpool shopping centre (planning ref: 0326822). The OPW should only undertake measures that meet or exceed international best practice in natural flood management practices that encourage the rewilding of our rivers. This proposed scheme does not meet international best practice. This is not good enough.
In addition, I have serious concerns that the Environmental Impact Assessment

Report Non-Technical Summary May 2018, fails to mention the impact the scheme will have on the feeding grounds of birds. It can be seen in the following images there are many different birds that feed on the River Bride that will no longer be able to access the river. I deem this to be totally unacceptable and irresponsible. Future generations will look back in horror on this scheme.

I also view this scheme as a massive lost opportunity for Blackpool and the city. An alternative more sustainable option would be to celebrate the existence of the River Bride through developing green spaces, walking areas, nature viewing points, recreation spaces, family picnic sites and community seating on its banks, to enable residents and visitors to experience the beauty and magic of nature in their urban environment, in the case of Blackpool an environment of great historical significance for the city of Cork.

This sustainable approach would bring significant added benefits (e.g. mental, physical, emotional) to residents, placing nature at their back door, allowing them to experience its beauty on a daily basis and to reconnect with each other and the local wildlife.

In fact, reimagining Blackpool as a vibrant village on the edge of the city with a beautiful river flowing through it would reap much wider benefits, attracting visitors, potentially placing Cork on a par with other international cities that have used nature to their advantage, working with rather than against the natural world.

I strongly request that you do not go ahead with the scheme, instead pursuing an environmentally sensitive, international best practice solution.

Kind Regards,

Jude Sherry
[redacted]

Here are the images showing bird life around the river which will clearly be killed off with the proposed scheme.

[redacted]

Heron at the Douglas flood prevention scheme location. Nowhere for him/her to get close to the water. @savecorkcity #lovethelee

10:45 AM · Feb 20, 2020 · Twitter for Android

8 Retweets 26 Likes

The River Bride
@ChrisMoodyDraws

Why make it nicer? The proposed works (shown here) at this location, adjacent to the former Sunbeam factory site, are in many ways just an update to the original man-made channel constructed here in the 1940s. The world has moved on since then...the OPW flood crew have not. #cork

4:02 PM · Feb 1, 2020 · Twitter for iPad

11 Retweets 39 Likes

The River Bride
@ChrisMoodyDraws

My el cheapo eBay trail camera has been knocked over and dragged by curious creatures, shat on by birds and fully submerged during high river flows - it's till going strong and delivering little snippets of river life in Blackpool. Filmed near Blackpool Village last year. #cork

10:46 AM · Dec 12, 2019 · Twitter Web App

10 Retweets 49 Likes

The River Bride
@ChrisMoodyDraws

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10:48 AM · Dec 12, 2019 · Twitter Web App

10 Retweets 49 Likes

The River Bride
@ChrisMoodyDraws

A dipper at Orchard Court, Blackpool yesterday morning. Furious flapping of wings keeps it's plump little body above the water. #cork

1:38 PM · Feb 1, 2020 · Twitter Web App

6 Retweets 34 Likes

The River Bride
@ChrisBroodyShaw

My el cheapo eBay trail camera has been knocked over and dragged by curious creatures, shat on by birds and fully submerged during high river flows - it's till going strong and delivering little snippets of river life in Blackpool. Filmed near Blackpool Village last year. #cork

10:48 AM · Dec 12, 2019 · Twitter Web App

10 Retweets **49** Likes

From: [redacted]
To: Per BlackpoolSchemeConsultation
Subject: River Bride
Date: Thursday 27 February 2020 11:22:51

Dear Sir,

We have been asked to send our comments re the above scheme in terms of:

1. the likely effects on the environment of the scheme

2. the scheme's impact on Natura 2000 Site(s)

We feel that the scheme has to be sympathetic to wildlife and give due protection to the otter which is living and breeding in the area. Cork Nature Network undertook a citizen science project in 2017 and has also been involved in local promotion of the importance of the otter in the Blackpool region.

The likely effects of concern would be negative impacts on the otter and other wildlife which we are aware that lives in the river bride. This includes the otter (breeding, resting and feeding), brown trout (breeding), dippers and a range of invertebrates including stonefly, mayfly and midge larvae in addition to snails and beetle larvae. (CNN unpublished river survey, 2018).

We recommend that the banks opposite and above from the Commons Inn are left with vegetation on the northern side to enable the otter to continue breeding and resting. This is also an undisturbed area which otters prefer.

We would also like river embankments to be planted with other native species apart from just grass to enable cover for the birds and otters. The river embankments are also important cover for fish and some emerging insects. The whole ecosystem is connected and this needs to be taken into account.

We do not agree with the culvert as this removes part of the invaluable habitat for the otter and fish species. It makes a concrete environment that does not enhance any natural environment or our well being. We would prefer a further investigation into a wall improvement approach.

We have huge concerns around the construction stage of the improvements. The impact of construction and disturbance would be great and if impeded in movements otters will move across land and increase their likelihood of injury. The river must never be blocked at any stage or reduced to a small flow during construction. Otters do not like disturbance and therefore we are asking for full clarification on how the construction will be scheduled and the stages are undertaken.

The impact on proposed Natural sites will ultimately influence the upper catchment as there are a number of Proposed natural heritage areas in the local

area. These include:

Shournagh valley(000103)
Blarney lakes (001798)
Blarney castle woods (001039)
Blarney bog (001857)
Lee valley (000094)

There is no reference or consideration take of these proposed sites.

We, therefore, feel that this scheme needs to be revised to take due care of the protection of the otter. Changes to the river bride will in our opinion based upon our research in the area impact upon the otters resting and breeding in the location opposite and above the Commons Inn plus there are great concerns around the harm to otters during the construction stage.

Thank you for your time.

Gill Weyman

[redacted]

From: [redacted]
To: Per BlackpoolSchemeConsultation
Subject: Objection to Culverting River in Blackpool
Date: Thursday 27 February 2020 11:12:27

Minister,

I wish to state my objection to the culverting of 350m of the River Bride in Blackpool, Cork.

I believe this would damage a vital characteristic of the area and a local amenity which could be better served by positive urban regeneration. Under the current proposal, two pedestrian bridges would be removed, removing the availability of an attractive riverside walking route which would greatly enhance the area and encourage sustainable transport, leisure and recreation.

As stated in a report, the work would have significant and lasting damage on wildlife and biodiversity in the area and at a time when we are experiencing a biodiversity crisis both nationally and internationally, as has been formally recognised. Most gravely effected would be eels, brown trout and the otter, which is a protected species under the EU Habitats directive.

I believe this plan is short sighted and, already, outdated. Alternative design solutions are available which can meet the needs of all parties without depriving the local community and its wildlife of their river as both amenity and habitat.

Is mise le meas,

Roslyn Steer

The culverted system in Blackpool has been incrementally constructed since the early the 1980s as part of the Glen-Bride-Kiln River Improvement Scheme which was commissioned by Cork Corporation in 1981. There has been an extensive history of flooding in the Blackpool area of Cork City in recent years. Flooding is primarily due to heavy rainfall in the catchment of the Bride River and of its tributaries, the Glenamought and Glen Rivers. Prior to the early 2000s, the primary source of flood risk came from the Glen River, while after this time main source of flood risk has been the River Bride. EIAR Pg4

I wish to question this opening paragraph : Incremental works were carried out to **improve the rivers Glen Bride and Kiln** during the 1980s There has been "extensive history of flooding in the Blackpool area of Cork City in recent years. Flooding is primarily due to heavy rainfall"

Cork City and County has an age old track record of severe weather periods which caused severe damage, please refer to quote in red *1 from CCCs archive. Can one assume that the incremental works during the 1980s literally pushed the problem further downstream into the Blackpool area? If this is the case the works carried out were unsuccessful. My research continues to show that poor planning decisions allowing developments in low lying areas , formerly and naturally river flood plains, are key factors to the current town and city overflows and flooding problems. *1. CCC archive : On 17 January 1789, a flood swept away much of the bridge, which was still under construction. This first bridge was badly damaged in another flood on 2 November 1853 and a new bridge was designed by Sir John Benson.

At a 2019 meeting of the Engineers of Ireland in Cork the debate about flood relief for the City and County was on the agenda. Despite the international focus of recent years on upstream riparian management practices and the reversal of concrete culverting in the built-up natural flood plains of rivers and streams, several of the professional presentations denied and down graded these contemporary successful methodologies. It was clear that many of the Engineers present were not trained in Environmental Engineering which over the past decade of river flooding events has become a focal hot spot. Not one successful project was highlighted yet the numbers are on the increase in all other EU states. In towns and villages all over Germany streams and rivers that were culverted in the 1970s and 80s are being restored to their natural states where at all possible. The streams and rivers are being analysed and evaluated from source !! Bad planning and a misunderstanding of the nature of a river from the source to the sea lies at the centre of their dilemmas.

A low diversity and abundance of fish species was recorded from the study area. River Lamprey were recorded in low numbers in both the Bride River (North) and The Glenamought River. Brown Trout was the most frequently recorded species throughout the Bride (north) and in the Glenamought River this species is abundant. European eel was recorded in the Bride (north) in low numbers.

The river and surrounding vegetation provide Otter and Kingfisher foraging habitat. Kingfisher was recorded on the Glenamought River, whereas Otter was recorded along the Bride (north). EIAR Pg9

Globally we were never more aware of the detrimental effects we HUMANS are inflicting on the natural world. I have a major problem with the above statement and its convoluted wording. As species such as the wild Atlantic salmon, especially on the River Lee and its tributaries, are now at the lowest numbers ever recorded since 1957. Clearly according to local anglers and residents along the river Bride there is an extremely healthy population of trout , otter and kingfisher. These creatures are living proof that the food chain sustains their existence despite the current concrete culverting at varying sections along the rivers. Removal of the last natural area which sustains the micro organisms in the river bed, the myriad of flies, worms, beetles will be catastrophic and final. It will be yet another blow to the down-grading of our natural world.

The impact of the works on habitats, flora and fauna is considered slight for most species. However, **the impact on aquatic species and their habitat namely brown trout, lamprey and eel is significant due to the permanent loss of instream habitat** as a result of culverting, sediment traps and maintenance regiments. **Impact on otters is also considered very significant** as the culverting of an extensive length of river potentially results in loss of foraging habitat and increased severance between the Bride and the River Lee. EIAR Pg9

If we consider Mans constant attack on Nature (Death by a thousand cuts) and that we all suffer the consequences inflicted by us, this is yet another one of those lethal cuts.

Mitigation measures will minimise the impact on fisheries from the construction phase, however the permanent loss of habitat cannot be mitigated in the context of this assessment. Compensatory measures will be carried out in agreement with IFI with regard to salmonid habitat. However, impact on Fisheries within the Bride (North) catchment remains a Permanent Significant Negative Impact. It is considered that the otter population on the Bride and Glenamought do not cross over with the River Lee otter populations. Nevertheless mpact on otters will require mitigation to minimise the risk of severance due to culverting by the provision of otter passes and artificial holts. **Compensatory measures for fisheries will also serve to**

benefit otter foraging on the Bride. Despite the proposed mitigation the impact on otters is Permeant Significant Negative Impact. EIAR Pg9

What use are any "compensatory measures" when the flourishing natural habitat of the following list of creatures that can be seen with the naked eye, not to mention the minute organisms they all feed upon, are scheduled for total wipeout. This is inappropriate use of language in the EIA report. Concrete culverting wipes out natural habitat. Here is a brief list of creatures earmarked for destruction due to total loss of natural habitat, as seen and photographed by a local Blackpool resident.

Irish Dipper, Eurasian Otter, Gray Wagtail, Mallard, Heron, Brown trout, Fox , Freshwater shrimp, Mayfly nymph, Leech, Stonefly nymph, Caddis fly nymph.

The Appropriate Assessment screening concluded that impacts on the Great Channel Island SAC and Cork Harbour SPA could be precluded on the basis of their distance (>5km downstream) from the proposed Drainage Scheme at Blackpool and the nature and scale of the proposed works, its design and mitigation measures. EIAR Pg 10

According to many years of study by organisations like SWAN IRELAND the greatest threat to our rivers and streams is siltation (60% of Irish rivers and streams are in an unhealthy state as reported by the EPA 2019) Any and all culverting , removal of natural vegetation, monocultural land use especially the channelling implemented for the plantation of sitka spruce plantations, removal of ditches, dredging of streams has a direct and negative impact and causes the increase of **siltation** . Silt is carried unhindered from the upper reaches and over time chokes the rivers , destroys habitat and is deposited in the outer reaches at the mouths of our rivers . One does not require any qualifications in ecology to comprehend that the research is crystal clear and it is logical and detrimental. Year for year we are losing stream and river habitat. It is decreasing . It is damaging our natural heritage. It is killing our fish as it wipes out their spawning redds. It is a slow deathly process and we are not acting to stop it. We are simply contributing further to the acceleration of river and harbour choking with every flat concrete surface that is put in place.

Mudstone and purple Siltstone and Sandstone with quartz veining. The works will involve excavation of approx. 13,700m3, however the permanent impacts on the above soils and geology are considered imperceptible. EIAR Pg 10

How much of the natural structures of the riverbed that have existed since the melting of the ice 10,000 years ago are earmarked within this figure for full decimation and irreparable destruction?

The Study Area is underlain by Devonian Old red sandstone with dinantian mudstone and sandstsone. The site is locally important aquifer with bedrock which is moderately productive only in Local Zones. Groundwater flows through fractures, fissures or joints in the bedrock. The groundwater body is generally covered by till derived from its sandstone parent material. There are numerous substances that will be used during the construction phase such as fuel, oil, lubricants, cement, silt, soil and other hydrocarbons which have the potential to pollute ground water. Washing of construction vehicles and machinery also poses a risk of polluting ground water. The impacts to hydrogeology as a result of the River Bride (Blackpool) Certified Drainage Scheme are temporary and not significant. EIAR Pg 11

Once the excavation takes place of the 13,700 cubic meters of Devonian red sandstone and pourous mudstone, with the incalculable amount of fissures and fractures that seep and weep into the underlying pristine groundwater sources, several thousand tons of concrete will be poured and embedded. Concrete is well known as one of the most environmentally-damaging materials we have on earth.

In simple terms, it consists of tightly-packed small particles of a hard material, bonded together by a powdered cement.

Modern cement is produced by grinding up rocks that contain calcium carbonate (e.g. limestone) and silicates (silicon + oxygen). This cement makes up about 10% of the final concrete mix. 80% of the mix is the aggregate – gravel or sand chosen especially for its toughness. 3% will be a mixture of iron ore and aluminum oxide, extracted from waste products. And the remaining 7% is water.

But it's not a wonder material. As concrete cures, it shrinks, which can cause cracks. And as it reacts with water, concrete does something else – **it creeps, or progressively deforms over time**. This has been known for decades, and it is included in every concrete-related calculation used in construction projects, so it's not news. But what actually causes it to creep has remained a mystery. Until now.

Top American scientists have uncovered exactly what makes concrete crack , creep and breakdown . Researchers from UCLA think they have the found the exact mechanism that causes concrete creep. It's all seemingly down to a process called *dissolution-precipitation*, so-called because the sticky C-S-H compounds dissolve in some areas of the concrete, while they are precipitated (or deposited) in other areas.

See the Journal of Chemical Physics for further details. **Laurie Winkless** is a scientific journalist and contributor to **Forbes**. The above paragraphs are direct quotes.

Once again 'Mans' solution, proving to be a so called quick fix but in effect a long term extension and exacerbation of very bad planning, and misunderstanding of the basic laws of Nature and the natural attributes and power of streams and rivers.

Likewise, the impacts of these works vary, and range from imperceptible impacts where there is little change, to Moderate impacts in some areas where works are more apparent and result in greater changes to the visual environment.

The study area has been extensively impacted by modern road, commercial and residential schemes during recent decades and these have resulted in the widespread removal of the historical industrial building stock within the area. While the Glenamought remains relatively unaltered, the channel of the River Bride has been subject to widespread modern impacts including the installation of concrete channels/culverts, diversion channels and the replacement of masonry bridges with modern concrete structures. EIAR pgs 12 & 13

I wish to note the brevity of the Landscape report paragraphs in the EIAR . Brief and for the general public rather tricky to understand possibly due to the technical use of English in such reports. How are these levels defined and who is defining a **'Moderate impact'** if the works are **more apparent** and result in **greater changes to the visual environment**.

I am fully aware that such reports are written up by paid professionals. I also wish to state that I am writing this letter of rejection and criticism as an unpaid citizen of Cork. My place of work since the year 2000 is in the "Industrial Zone" of Blackpool. I may well have overlooked the detail of exact change to the "landscape". How many trees and bushes will be removed along this Riverscape ?

I am presuming this project is similar in technical approach to the culverting on the river Bandon. This is a perfect example of the decimation of natural habitat. The ruination of the existing final inner city stretch of natural river habitat which is in very good health based on the listed animals and fish that currently inhabit the area. A natural oasis earmarked for decimation.

" If the proposed development were not to proceed, the opportunity to protect Blackpool and surrounding areas in Cork City from future flooding events would be lost."EIAR Pg7

. With regard to the 'Human Beings' section of the non-technical summary, we are surprised that there is no mention of 'quality-of-life' considerations, e.g., what negative impacts the development as proposed would have on local citizens' 'nature-deficit' indices by not only the elimination of riverside amenity**, but missing the opportunity to enhance this facility for purposes of human 'quality of life' as well as wildlife habitat creation**. The section furthermore needlessly skews the argument in favour of the current proposal by claiming that: We consider this statement blatantly untrue; inconsistent with what should be an unbiased reporting in the context of a Consultation document, and **unfairly pre-empts the opportunity to envisage more holistically-conceived and environmentally-friendly alternatives**.

This is a direct quote from the Coomhola Trust submission which has been published. I completely agree with this statement. Everything possible should be undertaken to preserve and enhance these tracts of natural habitat. Coomhola Trust have a 35 year track record educating the Irish population across the board , the length and breadth of Ireland, in matters stream and river conservation. They are a highly skilled and educated group of environmental specialists who's approach is collaborative and all inclusive. Ireland needs specialists of this calibre with **60%** of our inland waterways below the EU accepted levels of 'acceptable healthy condition'!!

As an Irish born professional artist and film maker with an international track record of exhibitions and awards I have dedicated the past seven years of my work to the pressing matters of our jeopardised environment. Due to my deep interest in the conservation and preservation of our natural heritage I hereby submit my personal submission for genuine consideration by the minister and his office. Over the past years I have consulted with several professionals from the Environmental Science arena in Ireland , the UK , Germany and the USA. Many of these professionals contributed to the film RIVER RUNNER which highlights mistakes made in the past that would be inconceivable today. The film continues to screen in public venues throughout Ireland. https://www.youtube.com/watch?v=5eyNX6JEGN4&t=377s

I wish to include a final quote from the highly respected pen of the director of the Coomhola Salmon Trust and SWAN IRELAND which will be submitted to your office for review.

The Bride Catchment provides a superb opportunity to incorporate international state-of-the-art techniques and methodology to achieve flood protection as well as environmental conservation. One only has to look at current practices in The Netherlands, the UK, and the USA for examples of how previously straightened channels are being turned back into meandering flows, and culverts are being dug up in a practice called 'Daylighting', to correct the errors of past drainage Schemes.

The Bride presents an occasion where Irish engineering response could move into the vanguard of international 'best-practice' concerning flood alleviation which conserves and enhances natural ecological assets, thus benefitting the environment as well as the Catchment's human population.

We have neglected our natural assets over the past 50 years. Proof of this is not a matter of opinion it is clearly outlined in the reports of the EPA black on white. We have overseen the decline and decimation of our natural resources. We are being penalised by the EU Commission for our ongoing refusal to upkeep Environmental Laws.

The number of individuals and small groups of genuinely committed citizens that have willingly laid their private savings on the line in Irish courtrooms, is commendable. But these attempts to highlight and preserve our heritage more often than not have been sadly defeated for the sake of 'progress'.

For the sake of my own children and future generations here in Ireland I cherish the day that new fresh thinking embeds itself in our policy makers minds. Environmental awareness and respect are key factors towards securing a positive, healthy and truly "green' future for one and all.

Go raibh mile maith,

Le gach dea-ghuí,

Declan O'Mahony

From: [redacted] hemeConsultation
Subject: Culverting and removal of amenity [redacted]n Blackpool
Date: Thursday 27 February 2020 09:05:16

Minister,

I wish to state my objection to the culverting of 350m of the River Bride in Blackpool as proposed under the Blackpool Flood Relief Scheme.

The culverting of the river in this way will remove an urban amenity that is better utilised towards developing a high-quality urban environment in Blackpool. This is an area of Cork city with enormous potential for regeneration and for which the river has great local significance.

Furthermore, the report on the scheme acknowledges the permanent detrimental effect culverting this section of the river will have on biodiversity. In particular, the permanent negative impact on otter, brown trout and eel is acknowledged.

The otter is a species listed in Annex IV of the EU Habitats Directive and as such benefits from the legal protection regime of that directive.

Other options that were examined proposed walls along this section of the river. While noting that this was objected to for aesthetic reasons as then designed, the chosen approach is objectionable for culverting the river with consequential serious amenity and biodiversity loss.

The proposed works should be redesigned in this area so as to be attractive, enhance the river amenity and preserve biodiversity, without resorting to culverting, removing the river amenity, or damaging biodiversity. That is achievable with more effort and greater thought.

Doing so now would reflect the changed policy circumstances since 2016. Especially, the declaration of a biodiversity emergency by Cork City Council, Dáil Éireann and the European Parliament.

I also object to the removal of the two attractive pedestrian bridges at Blackpool Retail Park. These form an attractive amenity walk around the waterway and small park. This area of the design should be reworked also so as to maintain an attractive looping river walk with associated attractive pedestrian bridges.

Sincerely,
Cllr Oliver Moran
Green Party
Cork City North East

Michael McCarthy

[redacted]

RE: River Bride (Blackpool) Drainage Scheme Public

Ref: DPE63-18-2018

Dear Sirs,

Following your public notice on the 23.01.20 for public submissions related to the EIA for the above scheme, I would like to submit the following;

The proposed “drainage” works on the river Bride are entirely counter productive to flood relief, they will exacerbate flooding, as previous culverting has and is contrary to all international best practice.

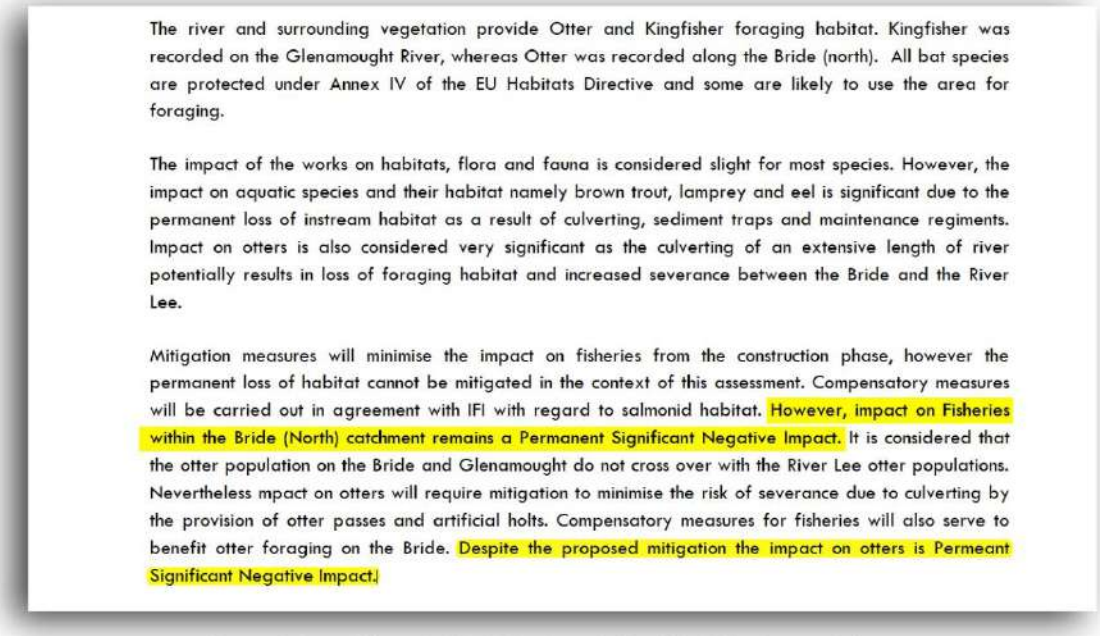
The Natura 2000 document refers to rivers and streams as some of the most important wildlife habitats in Europe

A natural unaltered watercourse is a rare sight in Europe these days. In contrast to most modified rivers, their hydrology is still intact which allows for the natural fluctuation in water flow and water levels according to season. Natural rivers also host many different habitats (narrow river gorges, entle riffles, tall sandbanks) that shift and change in quick succession from source to mouth depending on the environment they are traversing and the speed or quantity of the water flowing through it at the time.

Natura 2000 Page 44

The proposed works will entirely destroy the natural habitat of protected species under the Natura 2000 document, in particular the Eurasian otter (Lutra Lutra), an annex IV protected species.

Otters have been recorded in the affected stretch of the river Bride year round and “despite the proposed mitigation the impact on otters is Permeant (Sic) Significant Negative Impact”



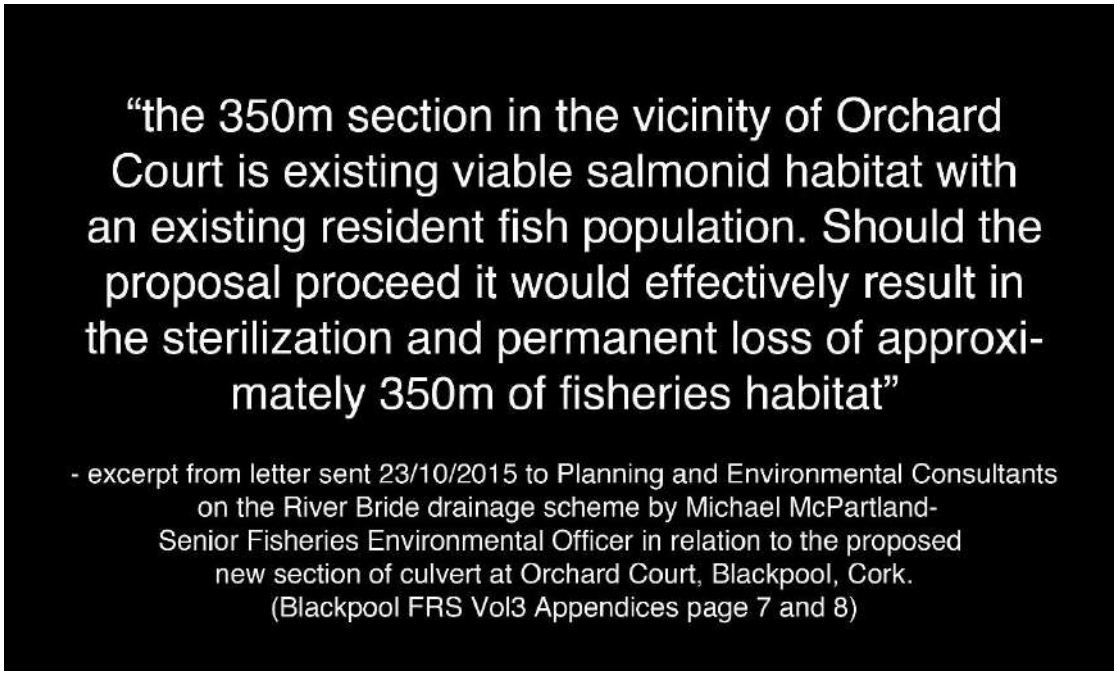
The river and surrounding vegetation provide Otter and Kingfisher foraging habitat. Kingfisher was recorded on the Glenamought River, whereas Otter was recorded along the Bride (north). All bat species are protected under Annex IV of the EU Habitats Directive and some are likely to use the area for foraging.

The impact of the works on habitats, flora and fauna is considered slight for most species. However, the impact on aquatic species and their habitat namely brown trout, lamprey and eel is significant due to the permanent loss of instream habitat as a result of culverting, sediment traps and maintenance regiments. Impact on otters is also considered very significant as the culverting of an extensive length of river potentially results in loss of foraging habitat and increased severance between the Bride and the River Lee.

Mitigation measures will minimise the impact on fisheries from the construction phase, however the permanent loss of habitat cannot be mitigated in the context of this assessment. Compensatory measures will be carried out in agreement with IFI with regard to salmonid habitat. However, impact on Fisheries within the Bride (North) catchment remains a Permanent Significant Negative Impact. It is considered that the otter population on the Bride and Glenamought do not cross over with the River Lee otter populations. Nevertheless mpact on otters will require mitigation to minimise the risk of severance due to culverting by the provision of otter passes and artificial holts. Compensatory measures for fisheries will also serve to benefit otter foraging on the Bride. Despite the proposed mitigation the impact on otters is Permeant Significant Negative Impact.

Excerpt from River Bride (Blackpool) Certified Drainage Scheme
Environmental Impact Assessment Report
Non-Technical Summary May 2018

The heavy engineering interference will also destroy the viable salmonid habitat of the river Bride.



The river Bride is home to The Irish Dipper (C. cinculus hibernicus). These are aquatic birds who depend on natural rivers and steams for their survival.

The little dippers in Ireland are a distinct subspieces which are unique to Ireland. Only one of 3 birds that carry this distinction.

Little dippers are referred to numerous times in the Natura 2000 document

PAGE 182 TOP LEFT
The Our river valley

PAGE 182 CENTRE LEFT
Kingfisher *Alcedo atthis*

PAGE 182 BOTTOM LEFT
Brook lamprey
Lampetra planeri

PAGE 182 BOTTOM RIGHT
Freshwater pearl mussel
Margaritifera margaritifera

PAGE 183 TOP
Dipper *Cinclus cinclus*

Landscape

Above the river Our, small, rather compact villages dot the plateau, surrounded by grazed or cultivated fields. Further from the villages, former common pastures on heathland are now mostly manured and grazed more intensively.

The river floods every year, and flower-rich meadows with purple moor-grass *Molinia caerulea* thrive on the silt-laden soils. The floodplain is dark, cold and damp due to steep sides of the valley.

Native beech forest cloaks the cold and rather inaccessible slopes, far from the villages, whereas oak has been planted on more accessible, south-facing slopes.

Wildlife

Inhabitants of the river include the thick-shelled river mussel *Unio crassus* and an important population of the freshwater pearl mussel. Fish such as the bullhead *Cottus gobio* and brook lamprey *Lampetra planeri* are found in the shallows, meanders and rapids.

The kingfisher *Alcedo atthis* and dipper *Cinclus cinclus* thrive along the river. The dipper dives for aquatic invertebrates such as mayfly and caddis-fly larvae, and will also take small fish. When perched, it frequently bobs or dips, but its special talents are the ability to swim underwater and walk on the riverbed.

Other birds of the valley include the hazel grouse *Bonasa bonasia* in the dense oak forest, and peregrine falcon *Falco peregrinus*. Mammals include Geoffrey's bat *Myotis emarginatus*, greater mouse-eared bat *Myotis myotis*, otter *Lutra lutra* and wild cat *Felis silvestris*.

Plants such as whorled Solomon's-seal *Polygonatum verticillatum* and common cow-wheat *Melampyrum pratense* grow in the beech forest.

Land use and conservation

The floodplain has always been mown by hand. Each villager needed at least one parcel of land for hay, which accounts for the long, narrow strips in the floodplain. These also gave access to the river for trout fishing.

Beech wood was used for house building. Oak plantations were cut every 30 years for their bark, giving rise to a thriving leather industry.

A recolonisation project for the freshwater pearl mussel is underway, but most young mussels are eaten by muskrats or choked by silt. Freshwater pearl mussels need a sandy or gravelly river bottom, but riverbank erosion has increased the build-up of silt. Banks are now being fenced and riverside vegetation restored. A dam made of river stones has been constructed, creating rapids to wash silt away while allowing fish to pass by.

VISITING
The Our river valley

Getting there
By train to Clevaux station and then by bus to Heinerscheid.

Getting around
The GR2 joins the Our valley from the three-countries point up to the Tintesmühle, a track where there are no roads. More information on walking tours can be found in flyers and brochures at the Parc Naturel de l'Our and the Tourism Office.

Best time to visit
Spring–autumn as the valley is completely inaccessible in winter.

Useful links
- www.naturpark-our.lu/de/index.php
information about nature, culture, tourism

The scheme also contradicts the CFRAM programme objectives by being contrary to the Water Frameworks Directive, being detrimental to the natural environment of the river.

Table 1.2 Flood Risk Management Objectives and Global Weightings for the National CFRAM Programme

CRITERIA		OBJECTIVE		SUB-OBJECTIVE		GLOBAL WEIGHTING
1	Social	a	Minimise risk to human health and life	i)	Minimise risk to human health and life of residents	27
				ii)	Minimise risk to high vulnerability properties	17
		b	Minimise risk to community	i)	Minimise risk to social infrastructure and amenity	9
				ii)	Minimise risk to local employment	7
2	Economic	a	Minimise economic risk	i)	Minimise economic risk	24
		b	Minimise risk to transport infrastructure	i)	Minimise risk to transport infrastructure	10
		c	Minimise risk to utility infrastructure	i)	Minimise risk to utility infrastructure	14
		d	Minimise risk to agriculture	i)	Minimise risk to agriculture	12
3	Environmental	a	Support the objectives of the WFD	i)	Provide no impediment to the achievement of water body objectives and, if possible, contribute to the achievement of water body objectives.	16
		b	Support the objectives of the Habitats Directive	i)	Avoid detrimental effects to, and where possible enhance, Natura 2000 network, protected species and their key habitats, recognising relevant landscape features and stepping stones.	10
		c	Avoid damage to, and where possible enhance, the flora and fauna of the catchment	i)	Avoid damage to or loss of, and where possible enhance, nature conservation sites and protected species or other known species of conservation concern.	5
		d	Protect, and where possible enhance, fisheries resource within the catchment	i)	Maintain existing, and where possible create new, fisheries habitat including the maintenance or improvement of conditions that allow upstream migration for fish species.	13

CRITERIA		OBJECTIVE		SUB-OBJECTIVE		GLOBAL WEIGHTING
3	Environmental (Continued)	e	Protect, and where possible enhance, landscape character and visual amenity within the river corridor	i)	Protect, and where possible enhance, visual amenity, landscape protection zones and views into / from designated scenic areas within the river corridor.	8
		f	Avoid damage to or loss of features, institutions and collections of cultural heritage importance and their setting	i)	Avoid damage to or loss of features, institutions and collections of architectural value and their setting.	4
				ii)	Avoid damage to or loss of features, institutions and collections of archaeological value and their setting.	4
4	Technical	a	Ensure flood risk management options are operationally robust	i)	Ensure flood risk management options are operationally robust	20
		b	Minimise health and safety risks associated with the construction, operation and maintenance of flood risk management options	i)	Minimise health and safety risks associated with the construction, operation and maintenance of flood risk management options	20
		c	Ensure flood risk management options are adaptable to future flood risk, and the potential impacts of climate change	i)	Ensure flood risk management options are adaptable to future flood risk, and the potential impacts of climate change	20

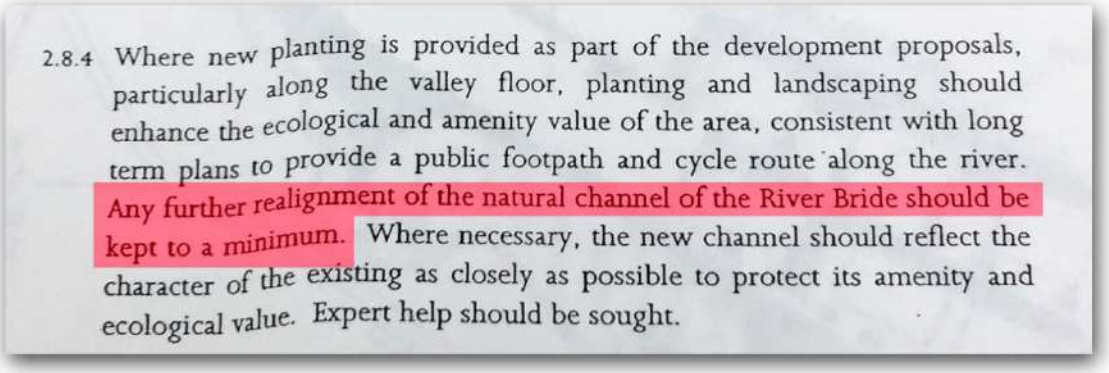
The construction of new trash screen will create a blockage point where there will be an increased likelihood of overflow and flooding.

The reliance on concrete walls and embankments will speed to the flow of water towards the city thereby creating a greater risk of flooding downstream.

The is in contravention of the Flood Directive to slow the flow of rivers and to avoid heavy engineering works in built up areas.

The works are also in contravention of the Cork city development plans.

This is an extract for the Blackpool Valley Local Plan 1996



2.8.4 Where new planting is provided as part of the development proposals, particularly along the valley floor, planting and landscaping should enhance the ecological and amenity value of the area, consistent with long term plans to provide a public footpath and cycle route along the river. Any further realignment of the natural channel of the River Bride should be kept to a minimum. Where necessary, the new channel should reflect the character of the existing as closely as possible to protect its amenity and ecological value. Expert help should be sought.

Excerpt from Blackpool Valley Local Plan 1996 Page 33

This is further expanded on in the 2015 – 2021 Cork City Development plan.

North-West (cont.)			
NW13	Commons Road / Lover's Walk Ridge	C,G,F	• To connect between Commons Road and Seminary Walk / Lover's Walk
NW14	Blackpool Valley (west) Ridge Commons Road	K,A,C,E,O	• To develop a woodland park on the southern valley slope to provide an attractive landscape feature at the gateway and to connect the rural landscape with the city; • To provide pedestrian linkages between residential areas at the top of the slope and Fitz's Boreen and Sunbeam development area.
NW15	New Mallow Road/Blackpool Ridge (West)	K,A,C,E,O	• To develop a woodland park on the southern valley slope to provide an attractive landscape feature at the gateway and to connect the rural landscape with the city;
NW16	Lower Killeen's Road	A,B,C,E,K,O	• To conserve and enhance the lower portion of the ridge, including the existing hedgerow, by additional tree planting; • To conserve and enhance the landscape value of the upper portion of the ridge as an urban woodland; • To provide limited development in the middle portion of the ridge to provide long-term management of the whole ridge. Development should be in small-scale pavilion style inset in a strong landscape structure.
NW17	(Former) Good Shepherd Convent	C,G,H	• To provide landscape structure and open space in any redevelopment.
North-East			
NE1	Bride Valley (1)	A,B,C,D,E (from train)	• To re-establish the River as a key element of the valley floor by providing a linear park with publicly accessible riverside treed walk.
NE2	Bride Valley (2)	A,B,C,D,E (from train)	• To re-establish the River as a key element of the valley floor by providing as linear park with publicly accessible riverside treed walk.
NE3	Bride Valley (3)	A,B,C,D,E (from train)	• To re-establish the River as a key element of the valley floor by providing a linear park with publicly accessible riverside walk with new tree coverage and linked spaces.
NE4	Blackpool Valley East	A,E,H	• To provide tree coverage to improve the appearance of this visually prominent land.
NE5	Saint Patrick's Hill	A,C,E,G	
NE6	Grattan Hill	C,G	
NE7	Middle Glanmire Road (1) (Vosterburg)	C,G	

10

In the city development plan, the River Bride is to be developed as a linear park with new tree coverage and linked spaces. This is progressive planning that aims to restore nature. It would help to alleviate flooding while helping urban nature in location devoid of natural amenities and public spaces

Objective 10.9 River and Waterway Corridors

To protect and maintain the integrity and maximise the potential of the natural heritage and biodiversity value of the River Lee and its associated watercourses.

To promote an integrated approach to the future development of the River Lee so that it includes all aspects of use e.g. recreation, maritime history and economic factors

Development proposals in river corridors shall:

a. Dedicate a minimum of 10m from the waters edge in channelized rivers for amenity, biodiversity and walkway purposes;

b. Dedicate a minimum of 15m from the top of the bank in non- channelized rivers for amenity, biodiversity and walkway purposes;

c. Preserve the biodiversity value of the site subject to Ecological Assessment by a suitably qualified Ecologist;

d. Shall not involve landfilling, diverting, culverting or realignment of river and stream corridors;

e. Sall not have a negative effect on the distinctive character and appearance of the waterway corridor and the specific characteristics and landscape elements of the individual site and its context.

10.9. d of the Cork City Development Plan 2015 – 2021 specifically dictates that work to rivers shall not involve culverting, ralignment or have negative effect on the character and appearance of the waterway corridor.

The proposed works are in direct contravention of the development plan .

The proposed works are the most expensive, least effective and worst value for money that can be selected.

It involves the heaviest of interventions and will have the greatest impact on the natural environment of the river.

There are other more effective and less costly methods of dealing with flooding that have not been assessed. There are proven methods that protect the natural enviroment while protecting properties from flooding. These alternative methods comply with the CFRAM, the Floods Directive and the city development plan while saving scarce financial resources for other uses such as housing, education and health.

It is highly likely, given past examples, that the tenders will be far in excess of the suggested €18m.

It is is further more likely that the tender price will be exceeded at final account by a large margin due to unforseen site conditions and post contract design development.

Yours Sincerely,

Michael McCarthy B.Sc. MRICS MSCSI

Consultant Quantity Surveyor.

From: [redacted]
[redacted]
Subject: River Bride (Blackpool) Drainage Scheme
Date: Thursday 27 February 2020 05:45:36

To whom it may concern

As a company that has operated in the heart of Blackpool Village since 1987 we have being through our fair share of flooding problems in that time. We have being flooded at least 9 or 10 times in that period. With climate change we seem to be getting a lot more rain which in turn we feel is going to lead to more flooding so we feel that this drainage scheme is so badly needed for Blackpool. We hope that you will give it great consideration when you decide on this project.

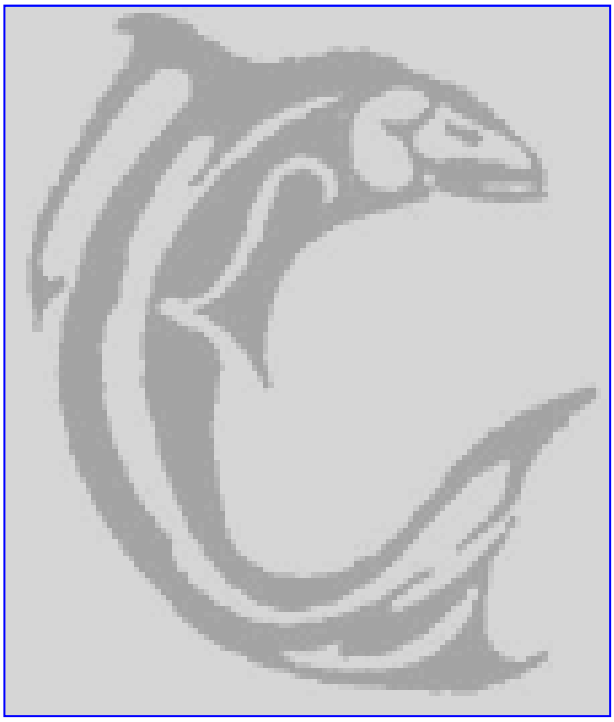
Kind Regards

Sean Kelleher

Blackpool Taxis Limited trading as Blue Cabs
[redacted]

River Bride (Blackpool) Drainage Scheme – Public Consultation

(Scheme Reference: DPE63-18-2018)



submitted via BlackpoolSchemeConsultation@per.gov.ie

by

Coomhola Salmon Trust Ltd.

[redacted]

February 2020

"Land management practices can play a vital role in managing flood risk at a local level. For example, the creation and restoration of wetlands and woodlands can reduce the level of flooding, and in some cases remove the risk of local flooding altogether. These practices also produce wider environmental benefits at a local level, including encouraging an increase in wildlife species and habitats, reducing carbon emissions and improving water quality." Department for Environment, Food and Rural Affairs (UK)

Regarding the 1993 floods in the Missouri/Mississippi system in the USA: "The importance of wetlands in reducing flood crests by soaking up rain and releasing it slowly was demonstrated in Illinois, where the ratio of peak stream flow to average rainfall decreased by 3.7% for every one percent increase in wetland area within a watershed".

"Underpinning the whole presentation was the concept of the drainage basin as an integrated system, emphasising in particular the links between hill-slope runoff processes and channel response. This forms the basis for understanding both water quality variations in upland basins, and the integrated management of upland catchment systems…the movement of water and sediment in upland catchments is closely related. Rapid erosion and high sediment yields are often associated with periods of rainfall and high run-off. Evaluating the importance of such events and the cumulative significance of slower and less dramatic geomorphic processes can only be assessed if a systematic evaluation of sediment, production transfer and storage in upland catchments is undertaken." Warburton, Evans, 2003

"Upland catchment management is vital to the supply of water, and involves many stakeholders. However, water suppliers at present deal with problems such as: catchment run off; bankside erosion; and effluent (agricultural/industrial/domestic) through end of pipe methods, at great cost to the tax-payer. Management practices upstream could considerably reduce these costs". Spray, 2003

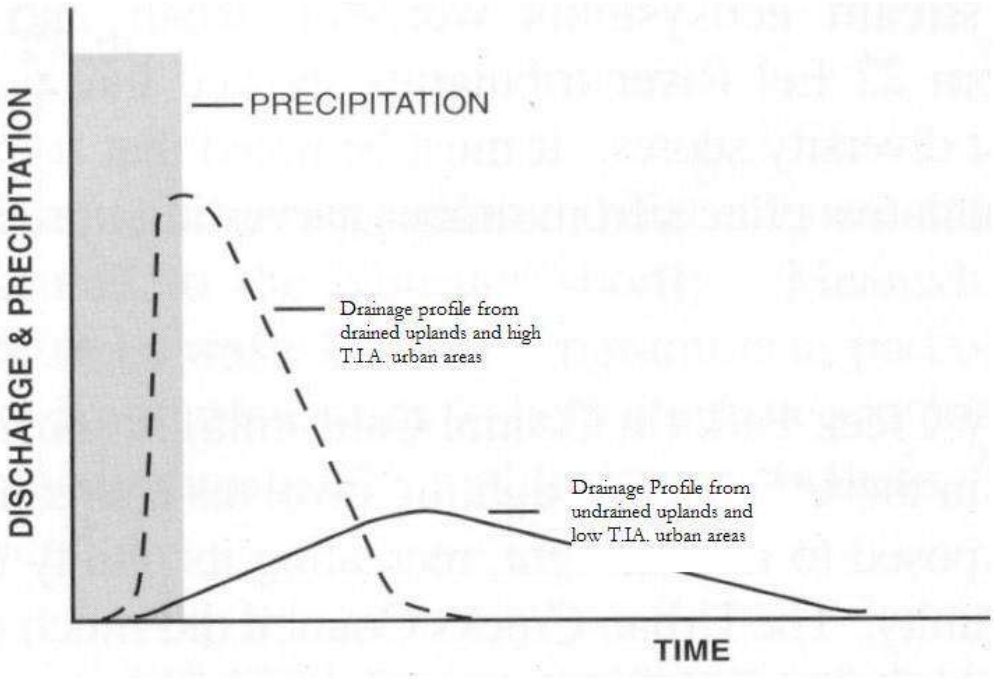
I. Proposed Scheme Observation & Comment

Coomhola Salmon Trust welcomes the opportunity to comment upon the proposed River Bride (Blackpool) Drainage Scheme. The Proposal rightly concerns itself with a paramount concern of alleviating human suffering and property loss but, given an €18m budget, falls far short of achieving both state-of-the-art holistic vision of the River Bride Catchment as well as environmental 'best-practice' which would conserve and enhance existing habitats as well as restoring habitats degraded by previous interventions. Following are Coomhola Salmon Trust observations and comments:

1) The Scheme departs from current international best-practice, forsaking a 'proactive' approach (which would have considered Catchment-wide factors) in favour of a 'reactive' (extremely localised) approach by intentionally narrowing the scope of study, consideration, and potential actions (cf Figure 1 and Figure 2 from the Document):

From Pg. 1, 'Introduction…': *"When the River Bride (Blackpool) Certified Drainage Scheme was pursued as a separate project to the Lower Lee Flood Relief Scheme, the Study Area for the proposed scheme encompassed a large area covering the entire catchment of the River Bride (including its tributaries, the Glenamought and the Glen) in order to allow for the consideration of all potential scheme options and their various impacts on the receiving environment (Figure 1). For most studies conducted as part of this EIAR, the Study Area was reduced to the channel and immediate surrounding areas of the River Bride extending from upstream of Glenamought Bridge, downstream through Blackpool, to the confluence with the River Lee at the Christy Ring Bridge."*

2) Moreover, a given undisturbed Catchment has a given attenuation capacity. When that capacity has been historically compromised (by poorly-informed drainage, road building, imposition of impermeable surfaces, and other necessary human activities) then response time to water level rising in a main channel is reduced thus exacerbating 'flooding'.



3) Therefore, from an environmental perspective, the incorrect 'reactive' response to largely anthropogenically-induced flooding is to consider only 'flood defences', and to ignore opportunities to a) consider the issue on a catchment-wide basis and, b) to institute measures which will assist (catchment-wide as well as localised) environmental conservation.

4) With regard to the 'Human Beings' section of the non-technical summary, we are surprised that there is no mention of 'quality-of-life' considerations, e.g., what negative impacts the development as proposed would have on local citizens' 'nature-deficit' indices by not only the elimination of riverside amenity, but missing the opportunity to enhance this facility for purposes of human 'quality of life' as well as wildlife habitat creation. The section furthermore needlessly skews the argument in favour of the current proposal by claiming that:

   "If the proposed development were not to proceed, the opportunity to protect Blackpool and surrounding areas in Cork City from future flooding events would be lost."

   We consider this statement blatantly untrue; inconsistent with what should be an unbiased reporting in the context of a Consultation document, and unfairly pre-empts the opportunity to envisage more holistically-conceived and environmentally-friendly alternatives.

5) We note that the 'Flora and Fauna' section of the 'non-technical summary' (which commences on Page 8) mentions:

   "The impact of the works on habitats, flora and fauna is considered slight for most species. However, the impact on aquatic species and their habitat namely brown trout, lamprey and eel is significant due to the permanent loss of instream habitat as a result of culverting, sediment traps and maintenance regiments. Impact on otters is also considered very significant as the culverting of an extensive length of river potentially results in loss of foraging habitat and increased severance between the Bride and the River Lee."

   The final two sentences therefore confirm for the Minister's benefit that the scheme will have "a significant impact upon the environment".

6) Flood defence walls and culverts, as portrayed in the Scheme, will be anathema to all local wildlife habitats.

II. Conclusions & Recommendations

With regard to the parameters of the consultation, vis-a vis:

> "Before the Minister can confirm the scheme, he must first determine if the scheme is likely to have
>
> A) a significant effect on the environment or
>
> B) have an impact on the integrity of a Natura 2000 Site (Sites)"

1) Coomhola Salmon Trust concludes:

    a) That Flood Relief in the affected areas must be achieved to alleviate human suffering;

    b) That the Scheme as proposed will have irrecoverable impacts upon "the environment" (taken to mean wildlife species and habitats);

    c) That the Scheme as proposed will have a deleterious impact upon the local Blackpool human environment (Sociological and 'quality-of-life' issues) by denying the local populace the enjoyment of a visible river (and assert that these considerations should have formed a central part of the planning aspects of this Scheme).

2) Coomhola Salmon Trust recommends:

    a) That, given the 'small' size of the overall Bride Catchment (53.6km^2), that efforts are made to quantify both the Catchment's existing attenuation capacity as well as to identify measures (including new upstream native woodlands, constructed wetlands, etc., and downstream development and implementation of permeable surfaces) sufficient to mitigate flooding events;

    b) That, for the 'final run' to the River Lee (through lower Blackpool village etc.) that the zone allowed for the river is widened from the existing (wherever feasible) to allow for the creation of a more natural continuum of habitats including instream, riparian, and other features to the benefit of wildlife as well as the human population;

The Bride Catchment provides a superb opportunity to incorporate international state-of-the-art techniques and methodology to achieve flood protection as well as environmental conservation. One only has to look at current practices in The Netherlands, the UK, and the USA for examples of how previously straightened channels are being turned back into meandering flows, and culverts are being dug up in a practice called 'Daylighting', to correct the errors of past drainage Schemes.

The Bride presents an occasion where Irish engineering response could move into the vanguard of international 'best-practice' concerning flood alleviation which conserves and enhances natural ecological assets, thus benefitting the environment as well as the Catchment's human population.

From: [redacted]
[redacted]
Subject: Appeal Bride (Blackpool) flood relief scheme
Date: Wednesday 26 February 2020 20:28:54

Dear Minister

Having read the environmental impact assessment report (EIAR) for the above mentioned proposed works, I wish to make an appeal on the following grounds (all information is based on the EIAR) -

Cork Harbour SPA and Great Island Channel SAC are both downstream of work area. These areas are protected under EU law and there should be no risk of pollution. However, any pollution from the work area will be carried downstream. (Section 5-3)

Section 5-4 states that River Bride North is

"likely to support some Annex II species."

"The Lees is known to contain populations of brown trout, lamprey, European eel. While the River Bride (North) is known to have poor water quality and has been extensively culverted it is likely to support some Annex II species which move upstream on the tributaries to more suitable habitats in particular during winter floods.

Otter population was surveyed and 11 were counted. It is likely there is more as the EIAR states –

"the entire length of the River Lee and its tributaries including the River Bride(North)provide suitable foraging/commuting corridors for otter. Otter holts are not known from within the environs of the city and its 1storder tributaries."

City Otters! Lovely. I believe that otters should be encouraged to live in the area, not dismissed by having this "suitable habitat" destroyed.

I DO NOT HAVE TIME to list ALL the protected flora and fauna found around the study area. The EIAR records many annex I and II flora and fauna – fish and eels, birds, mammals, plants, bryophytes. I think it is fair to say that visiting a site a few times and recording what you see as a way to determine what nature exists there is a flawed method. I have worked as an environmental scientist surveying upland habitats and I know there is not enough time spent really finding out the true nature of the area.

The time spent studying an area is not reflective of the nature there, and is only meeting the most basic legal requirements.

This EIAR focuses on what species of plant and animal were recorded or not recorded in the work area during study times. The information contained leaves me to believe that there is great potential for this river and the area. Historical records show that the study area once contained more Annex I and II species. When you culvert this river you will be losing its ecological potential and also adding to a greater flood risk. Concrete is impermeable and waterways and vegetation are natural flood relief. I believe this area should be left as it is and so contributing to natural flood relief while also helping to meet biodiversity, water quality and climate change targets.

The EIAR states there will be a –

*"**Permanent Very Significant Negative Impact**. There will be a potential impact on mammals and birds as a result of the proposal and during the construction phase in particular otter and birds."*

The water framework directive aims to have all of Europe's water quality to at least good status. By culverting and concreting this area you are contributing to deteriorating water quality and risk being fined by the European Court of Justice. Water is an important resource worldwide and like Ireland, internationally there is a trend of deteriorating water quality. River Bride North has a 'moderate' status. That means its quality needs to improve, that will not be done by culvert. This was determined in the EIAR (section 5.3.4)

On page 5-21 the EIAR admits conducting -

"Electro-fishing surveys of the existing fish stocks at selected sites on the Bride (North) (n=3) and Glenamought (n=1), the results of the surveys outlined below."

I am not happy that this is part of any EIAR.

The mitigation measures in the EIAR place a lot of importance on protecting, as much as possible, this vulnerable landscape while the same report paradoxically condones permanently altering the landscape.

The mitigation measures do not fully protect the area. For example, regarding birds the EIAR states –

"The removal of vegetation, hedgerows, treelines and woodland required prior to construction has the potential to impact on nesting birds as does works to bridges and culverts where nesting dippers and wagtails are known to nest. Impact on nesting birds in the absence of mitigation is Significant Negative Impact."

And –

"All vegetation clearance works and site preparatory works will be conducted outside of the bird nesting season (March to September inclusive). If this is not possible, a breeding bird survey will be undertaken in advance of the works to ensure that there will be no impacts on nesting birds. If nests are found, they will be safeguarded, with an appropriate buffer, until the chicks have successfully fledged. Particular regard will be had for nesting dippers and wagtails that are currently known to use the system."

What is the appropriate buffer to protect fledgling birds from mechanical works? This does not seem like adequate mitigation and this is another reason why I believe the proposed works should not go ahead.

Regarding cumulative effects, Dulux Paint factory is regarded as having a cumulative effect alongside the proposed development. (Table 5.6)

In section 7.4.2 - Flooding and Hydrology in the Existing Environment. –

"There has been a history of extensive flooding in the Blackpool area of Cork City in recent years. Prior to the early 2000s the primary source of flood risk came from the Glen River. However, in recent years this risk appears to have transferred over to the River Bride (North). Figure 7.6below summarises the flood history and illustrates the transition of risk between watercourses."

We do not fully understand flood risk in Ireland. If it is possible for flood risk to transfer to other rivers as mentioned above, who is to say that after the proposed works, the flood risk "transfers" as well. Climate change also plays a part in changing weather patterns and needs to be considered before the works begin.

The EIAR states -

"There are six (land protection zones) LPZs which fall within or partially within the Study Area. The Cork City Development Plan also the Landscape Assets to be protected and also site-specific objectives for each LPZ."

I believe this is another reason not to allow this proposed works to proceed.

There are many other reasons why i believe this proposed river development will adversely effect not only the ecology of the area but also the people in the area. But the EIAR is 314 pages long and that's a lot of pages to base an appeal on.

To conclude, building culverts as a flood defense is like putting a plaster on a piece of ham and believing it will turn back into a pig. As I write this, people across the country are being affected by flooding. I am listening to flood experts who recommend a more natural approach to flood relief, using natures elements as a buffer to flooding instead of man-made, impermeable concrete as an illusionary fix.

Kind regards

Alannah Caffrey

[redacted]

From: [redacted]
[redacted]
Subject: River Bride (Blackpool) Drainage Scheme
Date: Wednesday 26 February 2020 19:13:31

Dear Sir/Madam,

I wish to register, in the strongest terms, my opposition to this scheme.

As currently constituted, it is based on an outdated assessment and an outdated model, which fails to take account of changes both in the Bride (such as the culvert having been cleaned out) and of the need to move away from culverting and concrete as the first option.

It fails to take account of the permanent and extreme damage to the environment of the Bride and Blackpool, and the manner in which it would destroy the Irish Dipper population and the important otter population.

There are better, less invasive options available than culverting the river for 350m - an option which, in and of itself, allows for no safety valve if it goes wrong or flow is larger than expected in a regime of rapid and accelerating climate change.

Further, the record of the OPW in similar works of brutish indifference to the built and natural environment, as in the rivers of West Cork, its shocking record of non-oversight of contractors, such as the ongoing trial of a fish-kill on the Bandon and the manner in which the Bandon river was treated as a road-bed without any of the promised amelioration measures being taken, and the failure of OPW schemes in places such as Coonagh, should give pause to any fair-minded observer.

The scheme as constituted should be abandoned, a proper EEA carried out on the current situation of the Bride and a new, and better, scheme designed on the basis of that updated EEA.

Yours sincerely,

Tim O'Connor BL

Blackpool Flood Relief Scheme – Submission
26.2.20

From: Louise Jordan
[redacted]

I wish to object to the proposals in the River Bride (Blackpool) Drainage Scheme, for the following reasons:

Field Research shows an abundance of avian, animal and fish species in and around the Bride River, from the area above the Commons into Blackpool village. The ***permanent loss of their habitat*** – as stated in the Environmental Impact Report - is in direct contravention of all current recommendations relating to destruction of the natural environment and actions contributing to Climate Change.

Other countries are required to reinstate their "Insect Highways and Hedgerows" to re-establish biodiversity. We have a small area of green and natural space here and the council seems hell bent on destroying it. To destroy it is criminal and reduces factors that aid Carbon Sequestration. Biodiversity has to be maintained, not destroyed.

Historic flooding was caused in the main by the lack of maintenance of silt traps and culverts. Extending culverts and increased number of traps and pumps, that will not be maintained, is inevitably going to cause problems.

Tourism to Cork is on the increase. Tourists are looking for things to do when they visit the city. The number of historic walks is getting greater every year. The history of the Sunbeam Factory, pieces of sculpture and the Church of Annunciation in the area can be enhanced by the area being opened up and walkways created on the riverbank. There is no natural green space in Blackpool and the riverbank could be a beautiful public amenity. Nature trails are very popular – to allow people to see otters, kingfishers, herons, dippers so close to the city would be a massive improvement in the area. Tourists will be put off by concrete.

As part of the National Pollinator Plan this area could enhance the reputation of Cork city if developed properly. Planting wildflowers and encouraging pollinators is an essential part of the Plan.

According to the EIA Summary there is a ***Permanent Significant Negative Impact on Otters*** (despite proposed mitigation). This is not acceptable.

Permanent loss of habitat cannot be mitigated in the context of fisheries and aquatic life. Brown trout, lamprey and eel are affected and are protected under the ***EU (Quality of Salmonid Waters) Regulations 1988.***

The report states that the impact on Fisheries within the Bride catchment remains a ***Permanent Significant Negative Impact.*** This is in direct contravention of the ***EU (Quality of Salmonid Waters) Regulations 1988.***

There is no reference, in the report, to the living organisms in the till in the riverbed. Caddis flies and other species of animals and insects inhabit the till and are a source of food for birds, dippers specifically, ducks and fish. The negative impact on these organisms is permanent.

There are many examples of good engineering relating to flood relief that do not rely on concreting the banks of rivers and culverting them. This is such an old remedy – that regularly fails – that it should be the absolute last resort to deal with the issue.

It has been proven that increased use of concrete to line river embankments contribute to localized flooding. The run off drainage and soil water gets lodged and backs up into local buildings and land.

The report states that the proposed changes are 'consistent with the character of the environment' – this is exactly what we should **not** be trying to achieve. We do not need more concrete paving we need more natural space and access to a green and aquatic environment. There will be a huge and negative impact to the visual environment. People do not like concrete walls. Animals and birds cannot source their habitat and food when the river and riverbank is lined with concrete walls.

The Negative Impacts listed, on Page 14 of the EIA Summary, to the **Cultural Heritage Features** in the area is all relating to replacement and destruction of repairable walls and structures. The impact on **unrecorded archaeology is noted as being negative**. This is not acceptable. The Council should be enhancing the Historic Features not destroying them.

I wish to object to any additional culverting to the River Bride around Orchard Court and Dunnes Stores car park. All actions taken to increase flood defenses should be without any negative impact on the environment. The areas visible to the public should be enhanced and public amenities developed.

From: [redacted]

Subject: River Bride(Blackpool) Drainage Scheme.
Date: Wednesday 26 February 2020 17:14:07

Dear Sir/Madam,
I wish to offer my support for the River Bride (Blackpool) Drainage Scheme.
I have worked as a GP in Blackpool since 1985 and I am very familiar with the environment as well as the social needs of the people.
I have worked through the floodings in 2002, 2012, and 2013.
These led to significant stress and anxiety for the local people of the village which remains to this day.
Every time there is a flood warning the anxiety levels of the locals increase with resultant stress related illness.
The impact on the environment , which I understand the drainage scheme will effect, is much less than the impact of the floods on the local people both from a physical point of view but also from an economic point of view.
This is very obvious from the lack of infrastructure and development , even during Celtic Tiger years.
Investment in the village has been minimal and this I feel is to a large extent due to the risk of flooding. In fact one building in the heart of the village never opened as it flooded shortly after construction.
There is also considerable dumping in the River Bride and this also poses as a health hazard.
I would have every hope that the drainage scheme will progress.

[redacted]

Yours Sincerely,
Tom English.

From: [redacted]
[redacted]
Subject: River bride Blackpool drainage scheme
Date: Wednesday 26 February 2020 16:35:00

I would like to give my support to the construction of the colvert and flood walls to improve the flood defences as someone who's had first hand experience of flooding river bride Blackpool drainage scheme Alex Barrett

Sent from my iPhone

Submission From Blackpool Flood Committee supporting OPW Proposed Flood Relief Scheme-For Ministerial Confirmation 27/2/'20

Introduction:

Blackpool Flood Group was founded in July 2013 by residents and business people to engage in a positive way with all stakeholders and statutory bodies subsequent to a Public Meeting on 1/7/'13 to discuss the second major flood in Blackpool within a year. I would also like to note that after serious flooding in Summer of 2012 an Engineer from OPW South West Region Maintenance made a report on 4/7/'12 on the event .Over 150 properties were affected by the flooding the vast majority of which were residents. The main Church in the village of Blackpool was also flooded in 2012.

I should like to take this opportunity to thank my committee, Cork City Council Management and Jim Donavan (now retired Director of Services) Cork City Council. In particular I wish to thank Ezra McManaman OPW and Mr. Ken Leahy ARRUP who spent a lot of their valuable time meeting us taking local issues on board and updating us on the challenges that the scheme would present and how best to overcome them. We have had in excess of 30 meetings over the past number of years and included in our submission is a brief outline of some of the key meetings we have had to help progress the Flood Scheme for Blackpool.

I believe the process has been very lengthy and detailed but I wish to confirm that the Blackpool Flood Committee voted for this scheme to progress back on 5/11/'15.The public were presented with the OPW preferred option with a public exhibition in our Community Centre in December 2015.We all worked very hard to promote open public engagement during the OPW Public Exhibitions.The OPW public exhibitions were extremely well attended with over 300 local people attending and the vast majority approving the OPW proposal. My committee supported the OPW exhibition by doing the following:

We put posters up in Blackpool, we did interviews in the Evening Echo, we got announcements from Blackpool Church at Sunday mass (which has been flooded twice) and I myself and Jer Buckley our committee secretary did interviews on local radio promoting community engagement with the OPW Public Exhibition (I enclose a recording of one such radio interview.)During this exhaustive consultation process nobody came forward to us with issues about otters.Some time later we were contacted by OPW to inform us that they had been made aware that there were otters in our river and this would necessitate further delays and assessment. I would make the following comment on this issue.

The proposed solution requires an extension of the current culvert in Blackpool of only 350metres.If the otters are going through the current culvert into Cork City which is 1 mile in length an extra 350metres shouldn't be a deterrent.

Between the river Bride and the river Glenamought there are over 100miles of wild river course that these otters still have access to. The proposed extension to the current culvert of 350metres is less than .001% of the river courses involved. I would suggest minimal impact.

OPW are required to obtain a license from the Dept. Parks and Wildlife to carry out these works and if this is granted there should be absolutely no further reasons to delay this project which has the support of the vast majority of the people of Blackpool who have worked "hand in glove" with all stakeholders to achieve the long anticipated delivery of the OPW Flood Scheme for our village of Blackpool.

Despite the delays we are delighted that we are now at this final stage of Ministerial confirmation and we are confident that if the Minister confirms our Flood Scheme it will alleviate the misery and suffering that our community has endured due to flooding. Home owners and businesses don't have flood insurance anymore and have had to live with huge stress and anxiety every time there is heavy rain. There are very many derelict and brownfield sites in Blackpool that will now attract investment and the delivery of the OPW Flood Scheme is THE critical piece of infrastructure required for our community to feel SAFE and reach our full potential. The table enclosed indicates how long and hard our committee of volunteers have worked to secure our Flood Scheme.

We have also been involved in voluntary examinations of the culvert(identifying blockages).Volunteering for cleaning of culvert ; that is until one volunteer caught Hepatitis E from the river on a community clean out and became very ill as a result in the Summer of 2016.The extension to the culvert along with the sediment traps proposed will result in no more dumping in the river. The improvement of the culvert with non-returnable valves will mean we can all "sleep safe in our beds".

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Table of Blackpool Flood Committee meetings attendees and main issues discussed .

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12/6/'13

Inaugural meeting of the Blackpool Flood Group .Agreed to call public meeting.

Attendees Jer Buckley,Tadhg OLeary,Mick Moriarty,Liz ODonavon,Paddy Tierney.

Apologies Bill Dunlea,Tim OBrien and Jerry Aherne.

Flooding On Thomas Davis St, Blackpool , March 2013

Residents dealing with Flooding on GT William O Brien Street ,Blackpool November 2002

26/7/'13

BFC met with Maurice O Donoghue BARRY & Partners Engineers

Main points discussed:

Cleaning of Bride,Cleaning of Trash Screen,Taking out Trash screen effects,Maintaining constant heights of river bank,Check planning of Retail Park,Formation of new flood plains ,Control flows of Glen river,By Pass at screen,rocks placed in river at Orchard Court,Flood Tanks at Parklands.

Attendees:Mick Moriarty ,Bill Dunlea,Tadhg OLeary and Jer Buckley

2/8/'13

CCC cancel meeting agreed for 29/7/'13.RPS Report not forwarded or discussed.BFG very unhappy .Chair contacted Eamon Walsh CCC Eamon stated RPS Director not happy to release report till he comes back from holidays.The report would be revised and Eamon would be in touch to reschedule a meeting with BFG.

Attendees:Mick Moriarty,Jerry Aherne,Bill Dunlea,Tadhg O Leary ,Jer Buckley,Tim OBrien and Noel Hally.

Apologies Hannah O Driscoll and Paudie McCarthy.

28/8/'13

BFG MEETING WITH CCC

RPS Report still not ready.Eamon Walsh gave a broad outline of recommendations of RPS Report.

Trash Screen to be taken out.

ESB cables running through culvert to be taken out.

Survey on need for Sediment traps.

Bambino's in Bride to be removed.

Cleaning programme needs to be put in place .

Council will move ahead with the required works .

A discussion took place about on the merits of installing an orifice plate on the opening to the Glen river.Eamon suggested this should be raised with ARRUP and BFG should meet them.

Attendees:Jim O Donavan and Eamon Walsh CCC ,Tadhg OLeary,Noel Hally,Bill Dunlea MICK Moriarty,Jer Buckley.

12/9/'13

culvert by the church.The trash screen was removed to help flows in Orchard Court and Jersey barriers were erected in Orchard Court.

THE EMERGENCY MEASURES WHICH WERE TO HELP PREVENT FLOODING IN BLACKPOOL WERE DELIVERED.

Below is a link to the underground survey carried out by Tadhg O'Leary and Jer Buckley in November 3rd 2013

https://www.dropbox.com/s/s4v2ibo41vezovl/BlackpoolculvertsurveyNovember13.doc?dl=0

SOME OF THE PHOTOS OF BLOCKAGES IN THE BLACKPOOL CULVERT ON 3/11/'13

8.WE HAVE AS A COMMUNITY ENGAGED AND SUPPORTED ALL STAKEHOLDERS THROUGH EVERY STEP OF THIS PROCESS AND TRY AS BEST WE CAN BUILD COMMUNITY FLOOD RESILIENCE THROUGH OUR COMMUNITY FLOOD ALERT SYSTEM BUT WE HAVE STILL CONTINUE TO BE FLOODED.

9.BLACKPOOL IS A VILLAGE WITHIN CORK CITY BOUNDARIES THAT HAS HUGE POTENTIAL TO GROW BUT SUFFERS FROM A LOT OF DERELICTION AND UNDER DEVELOPED BROWN FIELD SITES ZONED AND PERFECTLY POSITIONED FOR HOUSING.

10.WE LIVE AND WORK IN AN AREA VERY VULNERABLE TO FLOODING AND THIS HAS A HUGE AFFECT ON OUR HEALTH AND WELL-BEING.

11.IF THIS SCHEME ISN'T DELIVERED WITH GLOBAL WARMING THE SITUATION IS ONLY GOING TO GET WORSE AND ONCE AGAIN WE WILL SEE BLACKPOOL ON PRIMETIME 9 OCLOCK NEWS WITH THE PUBLIC ASKING WHY WASN'T SOMETHING DONE FOR THIS VERY VULNERABLE COMMUNITY.

If the Minister gives approval for our scheme that will take another 2 Years to complete our scheme.10 years of worry high anxiety will be over !

I would respectfully ask the Minister to commence our long awaited flood scheme in Blackpool.

Yours Faithfully,

Mick Moriarty

Chairman Blackpool Flood Group

From: [redacted]
To: Per BlackpoolSchemeConsultation
Subject: River Bride (Blackpool)Drainage Scheme submission
Date: Wednesday 26 February 2020 14:31:12

In response to the public consultation notice on the above proposed scheme, I would like to make the following submission.

Introduction

Before the Minister can confirm this scheme, he must determine if the scheme is likely to have (a) a significant effect on the environment, or (b) have an impact on the integrity of a Natura 2000 site.

It is my view, on the basis of reports provided in connection with this scheme, i.e. the Environmental Impact Assessment Report Non Technical Summary May 2018 and the Natura Impact Statement, January 2019 that

(a) there will be a significant negative effect on the environment, in particular a protected species, ie Otters, and

(b) there are potential risks to the integrity of 2 Natura 2000 sites in Cork, i.e. ▪ Great Island Channel SAC (Site Code:004219) ▪ Cork Harbour SPA (Site Code 004030).

A – Environmental Impact

There are approx. 16 elements to this proposal as it refers to the River Bride and of particular concern is the major increase in the use of culverts on the river, adding to an existing amount of 239 metres by a further 342 metres. This represents an increase of 143% and is directly in contravention of Cork City Council's Development Plan.

The River Bride (Blackpool) Certified Drainage Scheme Environmental Impact Assessment Report Non Technical Summery [EIA Non Technical Summary hereafter] of May 2018 states that the Bride (north) river and its surrounding vegetation provide Otter and Kingfisher foraging habitat, and may also provide foraging habitat for bat species. Otters are among the 25 Irish species that must be provided protection under the EU Habitats directive. All bat species are also protected under Annex IV of this same directive. Although Globally Kingfishers are not endangered in western Europe they have declined dramatically over the past 50 years, mainly as a result of water pollution. For these reasons, the EU affords them special conservation status. The otter species, already extinct over much of its former range, is listed as "vulnerable to extinction" by the IUCN (International Union for the Conservation of Nature) and the Irish otter population is of international importance in terms of otter conservation.

The EIA non technical summary states that while the impact of the works on habitats, flora and fauna is considered slight for most species, the impact on certain acquatic species and their habitat, namely brown trout, lamprey and eel is significant due to the permanent loss of instream habitat as a result of culverting… It goes on to say *Impact on otters is also considered very significant as the culverting [*new*] of an extensive length of river potentially results in loss of foraging habitat and increased severance between the Bride and the River Lee.* For the purpose of clarity, 'significance' within impact classification terminology runs

through 5 stages from imperceptible [least severe] to profound, [most severe] with 'significant', the fourth most severe, being defined as 'an impact which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment'. The potential impact of these works is just below 'profound' which would obliterate the characteristic under consideration, i.e. otters, completely

It is the responsibility of the OPW in conducting this work, where environmental damage is likely to occur, to ascertain whether (a) the otter populations on the River Bride might cross over with other local otter populations and therefore whether the overall population in the locality can be partially protected. However, the non technical summary clearly states that the otter population on the Bride and Glenamought rivers do not cross over with the River Lee otter populations and therefore the risk to the Bride population is that works, in particular the culverting of such a large stretch of their habitat, may cause their severance. This report also evaluates the proposed mitigation measures, e.g. *An otter ledge will be integrated into the existing and proposed culvert network. Light wells will be provided within the culvert periodically to provide light for otters and aquatic organisms using the structure* and concludes that 'despite the proposed mitigation, the impact on otters is Permanent Significant Negative Impact. Again for clarity the definition of 'permanent, is an impact lasting over sixty years.'

<u>B – Risks to the Integrity of Natura 2000 sites closeby</u>

A review of the National Parks and Wildlife Service database has identified the following European Sites (Natura 2000 sites) as potentially impacted by the proposed project, being in proximity or downstream of the works (See Figure 4.1): ▪ Great Island Channel SAC (Site Code:004219) ▪ Cork Harbour SPA (Site Code 004030).

The Natura Impact report of January 2019 states that there are potential pathways for significant impacts to the conservation objectives of both European sites (Cork Harbour SPA and Great Island Channel SAC), in the absence of any best practice and pollution control, avoidance and mitigation measures, by impact and via the release of suspended solids or hydrocarbons or spread of invasive species that may enter the River Lee via the Bride (North) and [these impacts may] have a negative impact on qualifying habitats and species. It must be borne in mind that this report is only directly concerned with the Natura 2000 sites. Nonetheless it acknowledges that there is potential to impact these qualifying habitats. More importantly it acknowledges that there may be significant impacts on particular species and this negative impact is confirmed by the *EIA* non technical summary report already outlined.

I would like to make some further points:

Failure to integrate with Existing plans

The Cork City Council's development Plan 2015 – 2021 (Vol 1) under Objective 10.9,(which refer to River and Waterway Corridors) states that the goal is to protect and maintain the integrity and maximise the potential of the natural heritage and diversity of the River Lee and its associated watercourses. This plan aims for an integrated approach to the future development of the river so that as well as economic factors, which are particularly impacted by flooding, which is the more particular focus of the OPW, all developments also need to take account of

the natural heritage and biodiversity of the river and its associated watercourses. Rivers and waterways can provide significant recreational opportunities as well as being key features of the environmental landscape and natural heritage.

The Plan goes on to state that Development proposals in river corridors, such as the one presently under consideration,

> *Shall not involve landfilling, diverting, culverting or realignment of river and stream corridors.*

It is therefore clearly evident that the proposal to increase by 143% culverts on the River Bride is in direct contravention of this objective.

Alternative Options to Culverting

In the River Bride Flood Risk Management Options Assessment report prepared by Arup and JBA Consulting in January 2016, a series of options to address the flooding issues were evaluated. In looking at feasible options, four proposals were evaluated. 1. Upstream Storage, 2. High Walls in Orchard Court, 3. Culvert in Orchard Court and 4 Replacing Existing Culvert in Maddens Buildings. It is of significance that the differential in costs between the four options was not considered significant by Arup or JBA – 'It is noted that the most expensive option is only 30% more expensive than the cheapest option'. The actual costs of the different schemes was projected at

1. €10,458,166
2. €11,909,445*
3. €12,044,214
4. €14,188,724.

The consultants had also allowed a higher allowance for land acquisition in the Upstream Storage option (usual allowance of 15% of project cost was increased to 22.5% of project cost for Upstream Storage). Were these costs to be lower, e.g. the usual amount of 15% of project cost, this Upstream Storage option cost would be reduced by €91,707.

*When modelled, the option requiring high flood retaining walls in Orchard Court which were found by the public to be unacceptable for predominantly visual reasons.

<u>Conclusion</u>

Our government has declared a climate emergency recently and there has also been a significant increase in public awareness of the need to protect our natural heritage and in particular to protect biodiversity and endangered species. A fourfold increase in government representation of the Green Party represents very recent evidence of public concern.

The installation of 342 metres of new culvert will decimate the protected otter population on the River Bride. For this reason itself, the project needs to be revisited. Critically, in trying to balance the needs of the local population and economy in regard to flooding, there is an alternative option available i.e.

Upstream Storage, which could retain the integrity of the overall scheme but would mitigate some of the potential loss of habitat, in particular for otters and is cost efficient.

For the reasons outlined above I urge the Minister to decline this proposal of the OPW in its present form.

Aileen Cashman

River Bride Drainage Scheme Reference: DPE63-18-2018 - Submission

Minister,

In its current form the Blackpool FRS would have a permanent devastating impact on fish and mammals within the proposed work zone - notably the Eurasian otter - an Annex IV protected species. Otters are a key stone top predator and therefore a very significant part of biodiversity.

The Blackpool Scheme is composed of a number of hard measures - most significantly a 350m length of new culvert which will be added to the existing culvert system conveying the river underground from Blackpool Village to the River Lee for approximately 1.57km. Other measures includes defence walls, sediment traps and a large trash screen.

The EIA published in 2015 under estimated otter activity within the zone of proposed works. The difference between the EIA published in 2015 and the EIAR published in 2018 in relation to otter movement within the proposed works zone is clear. There are also inconsistencies in the report regarding the movement of otters between the Bride in Blackpool and the Lee via the existing culvert system.

The Cork City Otter Project 2011/2012* detected the presence of 11 otters in the city. Of the 11 individuals, 8 were found to be using the River Bride in Blackpool.

We attach a map of a 2016/2017 survey** of otters in the Blackpool area, note that we detected many more signs of otters in all seasons and these are backed up by both photographs on social media and DNA studies at Waterford Institute of Technology's Molecular Laboratory.

Otters are the last surviving terrestrial top predator in Ireland, the others being the extinct wolf, bear and lynx. Such animals are of ecological importance as they shape ecosystems, in this case a small urban freshwater river. They are significant indicators of climate change especially in freshwater habitats.

Normally it is expected that otters avoid urban areas, but around the world a few places have been found where otters occur in urban areas - in most urban areas in Ireland, and in parts of Korea, Singapore and South Africa. Otters here in Ireland are tolerant of disturbance and urbanisation, but within urban habitats they select secluded locations with better water quality. Research also suggests that they must have riparian vegetation to rest.

**A non-invasive genetic survey of otters (Lutra lutra) in an urban environment: A pilot study with citizen scientists - White et al*

***Signs and camera traps show otter (Lutra lutra) use on a small river in urban Cork, Ireland - Loxton et al (in review)*

Irish otters are a specific subspecies, native and unique they are very sexually dimorphic - the males are much bigger than the females which is probably due to scarcity of prey species in their evolutionary past. The key technique for detecting otters are surveys for 'signs' - the most significant signs are dropping called spraints which are left at prominent locations such as on large rocks, logs, piers, jetties and under bridges.

DNA can be extracted from fresh spraint. During our own survey of the proposed flood works area we found fresh spraints along the river in every season, which along with the photographs 'captured' on camera traps shows this part of the city is used in all seasons and by breeding otters.

The Blackpool FRS EIAR (2018) makes is clear that the impact of the scheme (in its current form) on fisheries and otters will permanent, significant and negative.

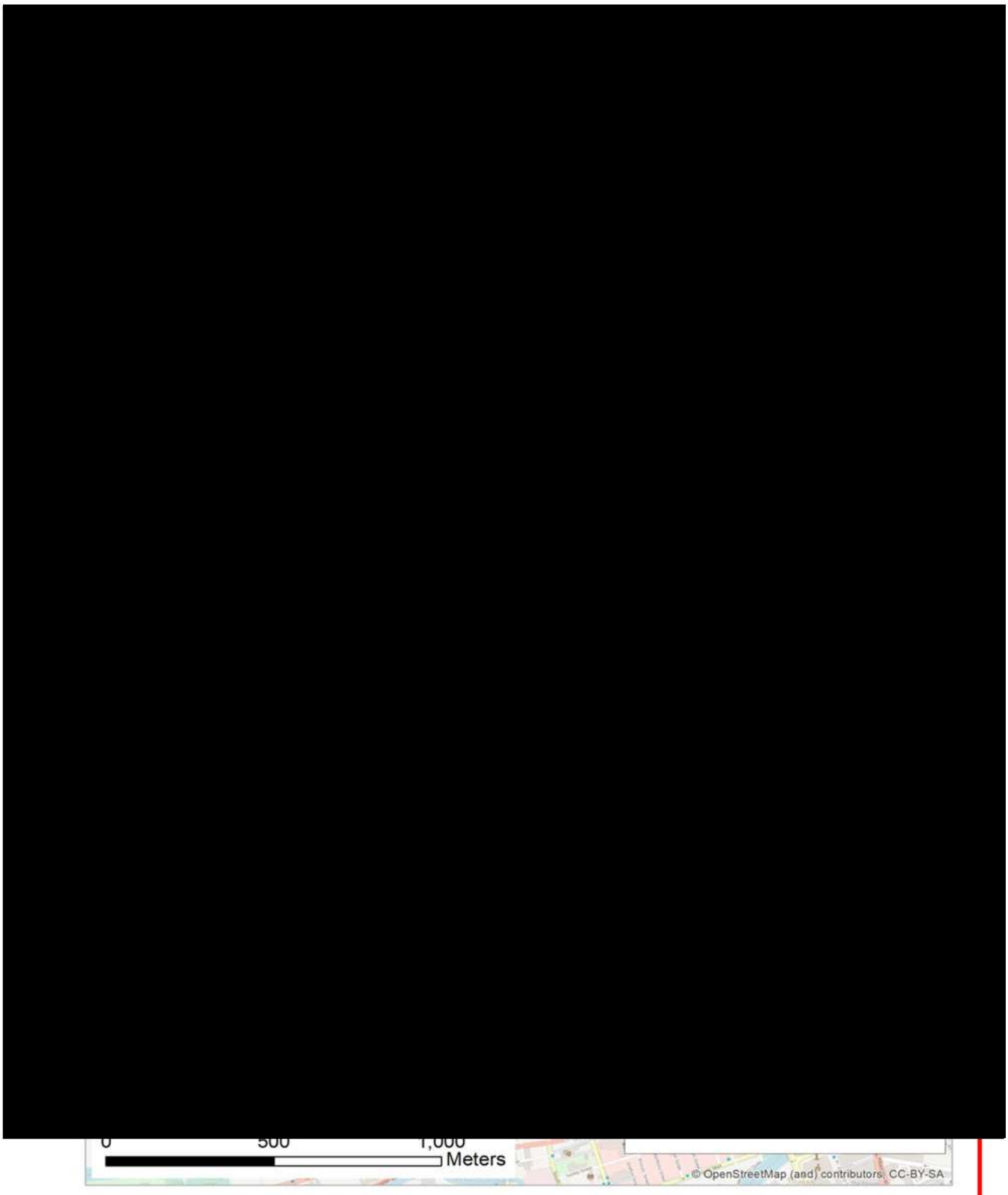
It is hard to see how this scheme 'fits' with Irelands declaration of a Climate and Bio-diversity emergency. The scheme is also at odds with the Cork City Development Plan 2015-2021 Objectives in relation to river and waterway corridors, particularly in relation to culverting.

We voice our strong objection to the scheme as proposed due to the very negative impact on the environment and request that the minister refer the Blackpool FRS back to the commissioners for reassessment.

Yours Sincerely

Paddy Sleeman

[redacted]



Results of Cork Otter Project survey conducted on The River Bride, Blackpool between 2016 and 2017 by Cork Nature Network and citizen scientist volunteers.

NOTE: Location of holts/resting places must not be made public.

Figure 1

From: [redacted]
[redacted]
Subject: River Bride (Blackpool) Drainage Scheme
Date: Wednesday 26 February 2020 12:20:06

To whom it may concern,

It is with great concern that I ask for the above mentioned scheme to be further reviewed by the Minister for Public Expenditure and Reform, Mr Paschal Donohue.

The EIAR prepared by Ryan Hanley Consulting Engineers on behalf of the Commissioners for Public Works clearly states that the impact of Fisheries within the Bride (North) catchment remains a permanent significant negative impact and also that despite proposed mitigation, the effect on Otters is also of permanent significant negative impact.

Considering that Dail Eireann declared a Climate and Biodiversity Emergency in Ireland only 9 months ago and given also that the River Bride is such a unique habitat nestled within Cork city, supporting so much biodiversity, it would be a shame not to see other solutions to the Drainage Scheme being explored. Culverting, in particular, would destroy this small oasis of natural beauty that is already flanked on all sides by concrete and sterile environment containing no biodiversity at all.

The many inhabitants of the River Bride are the last remaining species (outside of humans) living on the **only** remaining piece of natural habitat that exists in order for them to survive. It is their very last chance and it would be very much our loss to lose them when we have already taken so much.

Yours sincerely,

Bernie Carney

[redacted]

From: [redacted]
[redacted]
Subject: Blackpool FRS - objection/ submission on EIAR
Date: Wednesday 26 February 2020 12:07:52

Dear Minister,

Any lay reading of the conclusions of the EIAR compiled for the proposed Blackpool Flood Relief Scheme (FRS), coupled with a rudimentary understanding of planning implications as they relate to Environmental Assessment arising from the EIA and Habitats Directives, demand a refusal.

I would like to draw your attention to a number of quotations from the EIAR which, on their own, underline the incompatibility of the proposals with sustainable development:

“However the impact on aquatic species and their habitat namely brown trout, lamprey and eel is significant due to the permanent loss of instream habitat as a result of culverting, sediment traps and maintenance regiments.”

“... the permanent loss of habitat cannot be mitigated in the context of this assessment.”

“However impact on Fisheries within the Bride (North) catchment remain a Permanent Significant Negative Impact.”

“Despite the proposed mitigation the impact on Otters is Permanent Significant Negative Impact.”

The foregoing is grounds enough to refuse the proposal when considered in isolation. They are also grounds for a successful appeal to the European Courts based on a comprehensive body of case law.

The Permanent Significant Negative Impacts on designated and protected species and their habitats, must also be considered in the context that these conclusions and impacts were not considered in the original Environmental Assessment concurrent with the alternatives analysis which shaped the current proposals. Gaps in the alternatives/ scheme options analysis - inter alia upstream river alignment changes, failure to implement planning conditions, unlicenced river structures, performance and failure on instream structures, srl - must come into greater focus and assume a greater level of criticality in light of the proposal’s Environmental destructive consequences.

The IROPI test, forgiving the failure to invoke this mechanism, as it pertains to the public interest is undermined by the forecast costs of the scheme exceeding the economic benefits of the scheme. Notwithstanding the Minister’s Fiscal brief and duty to implement the Public Spending Code, the Minister cannot justify the Environmental Destruction planned and accepted in the EIAR for a scheme that no longer satisfies the original Cost Benefit Analysis.

I would implore the Minister to be cognisant of proper process in regard to his assessment and potential cost and reputational exposure for the Minister and the State arising from a challenge based on the Minister’s potential conflict of interest as adjudicator on an EIAR prepared on behalf of a development authority for which the Minister is responsible for. The Minister’s competence in adjudicating on an EIAR should also be considered.

I am confident that the Minister will desist from authorising the Environmental Destruction outlined in the EIAR and I would like to thank the Minister for consideration of this submission in establishing his/ her position.

Le means,
Seán MacCárthaigh

[redacted]

From: [redacted]
To: Per BlackpoolSchemeConsultation
Subject: Fwd: RiverBride (Blackpool) Drainage Scheme
Date: Tuesday 25 February 2020 22:11:45

To whom it may concern
> I am writing this email on behalf of my elderly mother Patricia MURRAY of 85 Great William O Brien Street, Blackpool.
> Her home has been affected badly by the flooding in the last few years.
> She is in favour of the new proposed works for Blackpool to prevent future flooding.
>
>
> Yours Sincerely
> Geraldine Horgan.
> [redacted]

From: [redacted]
To: Per BlackpoolSchemeConsultation
Subject: In Favour of Blackpool flood scheme
Date: Tuesday 25 February 2020 18:09:24

Good Evening,

I am very much in favour of the Blackpool Flood Scheme.
I live in Blackpool 28years, and work in Blackpool 12years. The floods have had a tremendous effect to my job (Daybreak prev Centra Blackpool)

Kind Regards,
Grace Sheehan.

[redacted]

From: [redacted]
Subject: Submission to River Bride (Blackpool) Drainage Scheme (Scheme Reference: DPE63-18-2018)
Date: Tuesday 25 February 2020 16:52:03

[redacted]

Re: River Bride (Blackpool) Drainage Scheme (Scheme Reference: DPE63-18-2018)

Dear Madam / Sir,

I ask that this Drainage Scheme referenced be revised to take into account the following :

The proposed mitigation plans will impact significantly on the otter population in the area. This has been assigned as a "Permanent Significant Negative Impact" by the Environmental Impact Assessment Report Non technical summary 2015 for the River Bride (Blackpool) certified drainage Scheme.

A common problem in most places with retaining otter populations is the reducing biodiversity of river banks and lake shores, especially in and around urban areas. A culverted River Bride will result in a reduced biodiversity.

Other affects of the mitigation will be the impact on the current Dipper and Kingfisher population. The Dipper (Cinclus cinclus) is a proven water quality bio-indicator for rivers and streams. Aquantic species such as River Lamprey, brown trout and the European eel will also be affected. Similar to the European eel, river lampreys are anadromous, moving between the ocean and their spawning grounds in rivers. All three Irish lamprey species are listed on Annex II of the European Union Habitats Directive (92/43/EEC). This directive legally protects each of these species in designated Special Areas of Conservation (SACs) and requires the monitoring and protection of lamprey species coupled with the conservation and maintenance of their preferred habitat.The impact of the Scheme on aquatic species and their habitat would be significant due to the permanent loss of in-stream habitat as a result of culverting, sediment traps and maintenance regimes.

The Orchard Court section should be left open and sensitively landscaped to preserve this unique environment within the city as well as having it as a resource for local schools to study.

Open water is regarded as a health benefit. Spending time in and around aquatic environments has consistently been shown to lead to significantly higher benefits, in inducing positive mood and reducing negative mood and stress, than green space does. Culverting in the stream takes away a resource which can be of significant benefit to the local and wider community, especially in the Blackpool area.

The River Bride was instrumental in driving Cork's mini Industrial revolution with numerous distilleries, breweries, tanneries and weaving mills dependent on the river. By culverting the river Bride, it's contribution to the city it is today is being neglected rather than being acknowledged by enhancing it's presence.

The River Bride has numerous wiers as a result of the historical need for water powder. Weirs and sluices can act as significant barriers to longitudinal river continuity in terms of sediment, nutrient and organism movement. The decommissioning and removal of these weirs should be evaluated and considered over culverting as their removal will have a positive impact on the catchment area as well as a cost benefit in terms of cost of removal versus the high costs of the current scheme.

I ask that you acknowledge this submission in writing.

Sincerely,

Rory Morrish

Private individual.

From: [redacted]
To: Per BlackpoolSchemeConsultation
Subject: Flood Scheme
Date: Tuesday 25 February 2020 16:07:49

Hi there. Please accept my submission of the planned flood relief scheme.

I have walked this river on many occasions and observed trout and otter marks. We are in the midst of a biodiversity crisis and the last thing we need to be doing is removing more habitat , especially one thriving in the middle of the heart of old Cork.

If this river was properly cared for and there was a community engagement scheme to connect local people with all its wonders it could become our version of the Tolka Valley or the Dodder Valley in Dublin. Biodiversity Corridors reaching into the heart of our city.

Recent floods have shown us we need to move towards a new approach to flood relief. It seems to me that this type of culverting is increasingly becoming an outdated way of dealing with flooding. Have all catchment based ”slow the flow” techniques been assessed?

I have real sympathy for the genuine concerns of Blackpool residents However I have seen some evidence that the flooding in Blackpool in 2012 and the subsequent event were a result of poor river maintenance rather than lack of capacity in channel. If this is indeed true iy would be an environmental tragedy to lose this wonderful river for little or no reason.

Kind regards

Ray Foley