

Fermoy Weir Remediation and Fish Bypass Channel

Public Consultation Summary Report



April 2021

Document Verification

Client: Cork Co Co

Project Name: Fermoy Weir Remediation and Fish Bypass Channel

Project Ref: 19011

Document Title: Public Consultation Summary Report

File Name: 19011-TJOC-ZZ-XX-RP-C-3712_Public_Consultation_Summary_Report

Revision Code	Status Code	Description of Revision	Prepared By	Checked By	Approved By	Date of Issue
P01	S2	Initial Draft	MV	DC	EF	09/02/2021
P02	S3	Revised with CCC Comments	MV	DC	EF	08/04/2021
P03	S3	Revised with further CCC Comments	MV	DC	EF	12/04/2021
P04	S4	Final Issue	MV	DC	EF	16/04/2021

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1. INTRODUCTION

1.1. Reason for Public Consultation

Cork County Council undertook a non-statutory public consultation, to elicit the views and opinions of the public, concerned parties and prescribed bodies on the options considered for the Fermoy Weir Remediation and Fish Bypass Channel project along with any other measures considered for implementation.

Fermoy weir was constructed in the early 19th century but has fallen into disrepair with the rate of deterioration accelerating in recent years. Fermoy weir is a protected structure, designated as such under the Fermoy Town Development Plan.

Cork County Council is obliged to protect the weir against further deterioration. Despite the presence of a fish ladder in the weir, the weir acts as a barrier to the passage of some fish.

Options for fish passage have been considered as part of the feasibility stage for the project. These options were identified in discussions with key stakeholders including Inland Fisheries Ireland. The Development Application Unit and the National Parks and Wildlife Service. High level information was provided in the consultation material for each option, describing what each option involves and what the implications for the weir and for fish passage would be if the option were pursued. Following on from a feasibility study, two options for the remediation of the weir are being considered and nine for the fish passage.

Before commencing preparation of a planning application and associated environmental studies and assessments for the scheme to provide for the remediation of Fermoy Weir along with the provision of a Fish Bypass Channel at Fermoy, the views and opinions of the public and relevant stakeholders were invited through a consultation process.

1.2. Consultation Period

Details of the proposed measures were made available on a website created for the consultation, www.fermoyweir.ie, from Friday, November 6th 2020.

The consultation was a non-statutory public consultation, intended to elicit the views and opinions of the public, concerned parties and prescribed bodies on the options considered for the Fermoy Weir Remediation and Fish Bypass Channel project along with any other measures considered for implementation.

The consultation was for an initial period of four weeks from Friday, November 6th until Friday, December 4th 2020. Local stakeholders highlighted the difficulties created by the Covid-19 restrictions in place during the consultation period. The closing date for receipt of submissions was subsequently extended to the 18th December 2020.

2. SUBMISSIONS RECEIVED

Over 100 submissions were received from the public and from key stakeholders through a combination of the project website and hardcopy submissions sent to Cork County Council. Responses have been sent to the key stakeholders. Submissions from individual members of the public have been reviewed and analysed. This review has identified that a number of recurring themes/issues were raised in the submissions along with suggestions for alternatives and/or additions to the scope of the project.

This summary report identifies the common trends and recurring themes in the submissions and presents responses to the issues and concerns raised. This summary report will be uploaded to the project website (www.fermoyweir.ie) and all parties who made a submission will be advised when this has been done.

2.1. Stakeholder Participation

The submissions received included ones from the following local and national stakeholders

- Fermoy Tourism
- Fermoy Forum
- Fermoy River Youth & Amenity Group (Wheelchair Boat),
- Cork Nature Network
- Fermoy Game Fishing and Fermoy Coarse Anglers
- Blackwater River Trust
- Save Our Weir – Save our Salmon
- Fermoy Rowing Club
- Inland Fisheries Ireland

The Community Water officer also requested that she be provided with further information and updates on the project as it progresses.

Save Our Weir Save Our salmon is an umbrella group representing fourteen clubs and organisations with an involvement or interest in the River Blackwater at Fermoy. These clubs and organisations are

- Fermoy Rowing Club
- Blackwater Sub Aqua Club
- Blackwater Triathlon Club
- Fermoy Tourism
- Save The Weir Umbrella Group
- Sandycove Island Swim Club
- Fermoy Wheelchair Boat
- Fermoy River Youth Fishing and Amenity
- Fermoy Game Fishing Association
- Fermoy Coarse Anglers Association
- Ballyduff Bridge Salmon Fishery
- Bridgetown Upper Fishery
- Phoenix Kayak Club
- Fermoy Town and District Angling Club

Cork Co Co's engineering advisors, T.J. O'Connor & Associates, made a presentation to representatives of the Save Our Weir Save Our Salmon umbrella group in an online meeting held on the 6th November 2020. Personnel from Cork Co Co and T.J. O'Connor & Associates also met with representatives in Fermoy on the 2nd December 2020 as part of ongoing stakeholder engagement.

2.2. Analysis of Submissions Received

The request for submissions invited individuals and organisations to express their views and opinions. The www.fermoyweir.ie website was viewed by 509 viewers with a total of 709 sessions over the duration of the public consultation period from the 6th November to the 18th December. This resulted in 105 submissions received through the website and one enquiry received at the local area office in Fermoy, giving a total of 106 submissions received.

Excluding the stakeholders identified in Section 2.1 above, submissions were received from 97 individuals, some of whom declared an association or involvement with a local sporting club.

Of the 106 submissions received, 35 expressed a preference for a particular option. 68 of the submissions expressed no preference for a particular option.

The breakdown of the preferences expressed in the submissions received is presented in Table 2-1 below.

Table 2-1 – Option Preferences Indicated in Submissions

No Preference	OPTION No						Additional Option*
	1	3	4	5	7	9	10
	Do Nothing	Remediate Existing Fish Pass	Complete Removal of Weir	In-River Rock Ramp	Near Natural Bypass Channel	Rough Channel pool Bypass	Chester Weir type
68	1	21	2	1	2	6	3

* Chester Weir type solution

Rather than respond to each submission individually, it is proposed to collectively consider the preferences, issues and proposals raised in the various submissions and provide responses which will assist in providing a better understanding of the constraints within which Cork Co Co must advance the project and how the concerns of stakeholders and the public are being addressed.

2.3. Preferred Options

One submission rightly observed that individual or collective preference cannot overrule legal requirements imposed by legislation. It is worthwhile quoting from the submission because the point is made clearly in the context of Irish and EU environmental law.

“Although an important facet of the democratic process the public consultation element should not and may not be determinative of the appropriate works to be carried out to the Fermoy weir. Even if the apparent public view is in favour of a particular project if that project does not comply with environmental and planning obligations, either domestic or European, then it may not proceed.

It is imperative therefore that any such works must be in alignment with the River Blackwater’s status as a Natura 2000 site / Special Area of Conservation and in compliance with Irish law and EU law in carrying out works on or to such sites. In accordance with prevailing jurisprudence any such works must have the necessary and relevant environmental assessments made and no works may be carried out unless the prevailing scientific view suggests the works are appropriate to these purposes. It must be ascertained that the works will not adversely affect the integrity of the SAC site

The appropriate remedy is not one which should be chosen or even influenced by plebiscite. The obligations in respect of such project are clear and the chosen method must be in compliance with those and not otherwise. Whether this is by way of rock ramp above or below the bridge, allowing the disintegration of the weir or by removal of the weir in its entirety is a question for engineering and environmental science as to whether any or all of these comply with the obligations of the Habitats Directive. If more than one so complies then that remedy which is least intrusive to the habitat must be the chosen approach.”

The observations contained in that particular submission are particularly relevant in respect of options which have gathered substantial public support but which fail to satisfy the conservation objectives of the Blackwater Special Area of Conservation.

The river Blackwater is designated as a SAC under EU legislation and cannot be delisted as it functions to protect the natural habitats and species of flora and fauna within the river. Each member state is required to protect any designated SAC's and comply with the conservation objectives of each individual SAC as listed in the annexes of the directive. As such, Cork County Council are required to ensure and demonstrate that any proposed works within the SAC will not impact on the conservation objectives of the SAC. This will be assessed by undertaking a Natura Impact Statement for the project which will include consideration of the effects of alternatives and of in-combination effects.

2.3.1. Option 1 Do Nothing

One submission stated *“let be the current situation, for the weir to slowly deteriorate, like many other protected structures throughout the State that are falling into disrepair. Are we to expect the State to repair every protected structure, unlikely.”*

The existing situation at Fermoy does not enable the passage of all fish species during the spawning season including twaite shad in particular which are listed among the qualifying interests for the SAC with a conservation objective of restoration. The "do nothing" scenario (option 1) would not achieve compliance with the SAC conservation objectives. This is therefore not a viable option as it would in effect continue to have a negative impact on biodiversity and the SAC.

Cork County Council are obliged to maintain the weir under planning legislation as it is a listed protected structure. If Cork County Council allowed the weir to deteriorate further

without intervention, they would be in breach of their obligations under planning and development legislation.

2.3.2. Option 3 Remediate the Weir and the Existing Fish Pass

Although this option did achieve significant support among the submissions received, it is not a viable option because it does not facilitate achievement of the conservation objectives of the Munster Blackwater SAC and will continue to have effects on the qualifying interests.

The proposed works provide for reinstating the weir, similar to the pre-2016 levels, and will be achieved by salvaging the existing masonry in the river bed which will be supplemented with additional closely matching masonry if there is a shortfall in material.

However, reinstatement of the weir, including the existing fish pass in the weir as per option 3, will not achieve compliance with the Habitats Directive as the existing fish pass alone does not provide for the passage of all fish species, such as twaite shad, which are listed as a qualifying interest for the Blackwater SAC. Twaite shad have limited swimming abilities when it comes to navigating weirs and / or fish passes and the existing weir and the original fish pass configuration is a barrier to their movement. It is a conservation objective of the SAC to make 75% of the main channel length of river accessible to twaite shad and also to sea lamprey, who along with brook and river lamprey, are also a qualifying interest of the SAC. This will not be achieved if these species cannot pass the weir which would be the case if the existing fish pass was restored for use as per option 3. Option 3 is therefore not considered to be a viable option. Notwithstanding the above, the existing fish pass will be remediated for heritage purposes and will be included as part of the preferred option for the scheme. However, the remediated fish pass will be for aesthetic purposes only and will not be functional due to the reasons outlined above.

The importance of restoring the river levels upstream of the weir to the people and stakeholder groups of Fermoy for recreational, tourism and historical reasons was a recurring theme in submissions received during the public consultation process.

Whichever option is identified as the preferred option for fish passage, it must be able to satisfy all of the conservation objectives of the SAC. The preferred option will be assessed in detail, as stated in Section 2.3 above, as part of the Natura Impact Assessment that is required for the scheme and which will be submitted as part of the planning application for the works.

Other aspects of the submissions which indicated a preference for Option 3 are addressed in Section 2.4 below.

2.3.3. Option 4 Complete Removal of the Weir

One submission noted that *“Weir removal is the best option. It provides connectivity for all fish species and complies with Fisheries legislation and Water Framework Directive.*

The other options will maintain a deep channel upstream impacting on water quality.

This is one of the best salmon rivers in Europe and with salmon as an iconic species which are currently in trouble there is no other option than weir removal.”

Another submission made the case that *“option 4 (complete removal of the weir) is the most beneficial choice to make. Not only will it allow unrestricted access up river to fish it will also drastically drop the rivers height. Had this been done several years ago it would have removed any necessity for fermoy's flood defenses. The loss of a rowing club is a small price to pay in exchange.”*

Complete removal of the weir would potentially satisfy the conservation objectives of the river Blackwater which is designated as a Special Area of Conservation. It would also satisfy the requirements of Inland Fisheries Ireland which include for the provision of fish passage for all species at all times of the year. However, the weir is listed as a protected structure and as such, it is not permissible under planning legislation and Cork County Council's obligation to preserve the weir, to remove it in its entirety. Complete removal of the weir is therefore not a viable option.

Salmon are one of the species designated as a qualifying interest for the Muster Blackwater SAC. As such, any proposed works are required to demonstrate through an appropriate Natura Impact Assessment, that the works will not have any significant negative impacts on salmon or any of the other conservation objectives of the SAC.

The importance of restoring the river levels upstream of the weir to the people and stakeholder groups of Fermoy for recreational, tourism and historical reasons has been evident throughout the stakeholder consultation process and was reflected by Cork County Council in the brief.

The flood defence scheme was advanced by the OPW in response to repeated significant flooding of the town of Fermoy. The scheme was subject to environmental impact assessment which included consideration of alternatives. The Drainage scheme was approved by the Minister with responsibility for flood alleviation at the time.

2.3.4. Option 5 Construct and In-River Rock Ramp

One submission indicated a preference for Option 5 as *“it satisfies many / most of the objectives and doesn't interfere with the upstream water levels or the levels of water above the mill race weir wall. ... I understand the protected structure issue may be a factor with this option but I think it is the least invasive issue of all to breach.”*

Option 5 would result in the permanent removal of part of the weir, contrary to its protected structure status but the rock ramp could be designed to provide for free passage of fish which would satisfy the conservation objectives of the SAC. However, the construction of the rock ramp would necessitate significant instream engineering works and would have a significant visual impact when viewed from the bridge. The ramp structure and, in particular, its southern side wall would extend upstream of the existing weir structure impacting on existing amenity uses extending to the middle of the river. The southern side wall, located midstream would be a substantial structure which would present challenges both in terms of its construction but also in terms of mitigation of its visual impact.

2.3.5. Option 7 Near Natural Bypass Channel

Submissions which expressed a preference for Option 7 did not do so exclusively with one submission stating support for Option 7 followed by option 3 and another expressing

support for either option 7 or option 9 which “*seem to best satisfy the multiple demands that any preservation works must meet*”.

The first of these submissions stated that these options stated that “*restoring what was a beautiful weir and mill pond to Fermoy is crucial both in terms of tourism and of providing amenities for locals. The original fish pass may not have been perfectly located but it was part of the rivers ecology for 200 years..... The near natural bypass appeals as it would improve fish passage without reducing water levels or significantly altering the river.*”

The second submission noted that “*Whichever of these options is implemented, it is vital that fish are able to pass upstream with ease, that upstream water levels are maintained to support the various activities that are enjoyed on the river and that the visual impact of the works does not deter enjoyment of the river.*”

Inland Fisheries Ireland have advised that the near natural bypass proposal in Option 7 would not satisfy the requirement that they have established for fish pass design which is set out in the DCMNR/Central Fisheries Board publication “Guidelines on the Construction & Operation of Small-Scale Hydro-Electric Schemes and Fisheries.” This stipulates that the fish pass should be designed for conveyance of the larger of 12.5% of the long-term mean flow or 50% of the flow upstream of the weir. The near natural bypass channel provides for a relatively narrow bypass channel width of 8 to 12m. This width is considered by the IFI and their advisors to be too small, failing to provide for the design flows rates specified above.

2.3.6. Option 9 Rough Channel Pool Bypass

One submission noted that “*The Options Report implies that Option 9 (rough channel-pool bypass) strikes the best balance in terms of substantially meeting all of the project objectives and also minimising construction-stage impacts. I am inclined to agree with this assessment. If executed properly, I believe that this option presents an excellent opportunity to preserve the heritage and amenity value of the weir, while also greatly improving the situation with regards to fish passage and the integrity of the Blackwater River (Cork/Waterford) SAC. I would like to emphasise that any solution must facilitate passage of not only the species for which the SAC is selected, but also European Eel, which is listed as Critically Endangered in Ireland and globally. This species is all too often overlooked and not provided for in fish passage projects/mitigation measures.*”

Other submissions also noted that this option was “*the optimal choice*” and “*would be the one to full-fill all the requirements for the weir, bypass etc.*”

The Rough Channel Pool Bypass is acceptable to Inland Fisheries Ireland and can be designed to meet the criteria referenced in Section 2.3.5 above. It is a viable option which can avoid effects on the qualifying interests and conservation objectives of the Munster Blackwater SAC.

2.4. Summary of Issues Raised

There were a number of recurring themes or issues raised in the submissions which are addressed below. The vast majority of the submissions received were supportive of the

proposal to remediate the weir. A small number of submissions were critical of the delay in progressing the scheme to date and demanded that further delays should be avoided.

2.4.1. Weir Remediation

Numerous submissions demanded that the weir be fixed. This is the objective of the project as planned by Cork Co Co. It is proposed that the existing weir, which is a protected structure, will be remediated and reinstated to its previous condition by using the existing masonry from the weir and stone recovered from the river bed where possible. Should there be a shortfall in this original stone it will be supplemented with additional limestone and sandstone closely matching the existing stone.

2.4.2. Mill Race

The entire weir, including the Mill Race section, is proposed to be reinstated. Therefore, water will be able to flow down towards the Mill Race section before eventually spilling over the weir. The 2 No existing 1000 x1000mm sluice gates in the flood defence wall at the entrance to the Mill race have an invert level of 20.70mOD Malin. These gates were left above the normal level of the flow in the river following the breach in the weir. Once the weir and mill race wall are restored, the water level in the channel between O'Neill Crowley Quay and the Mill race wall will normally be above level of the crest of the weir (21.45mOD) therefore flow to the Mill Race will be possible when the sluice gates are open. These gates are closed in flood events.

2.4.3. Existing Fish Pass

The existing fish ladder (also referred to as the salmon leap) incorporated in the weir upstream of the Bridge will be restored. However, When the new bypass channel is constructed the original fish pass will serve a heritage function only. This will be necessary in order to ensure that it does not act as an attraction to migrating fish, deflecting them away from the more suitable and efficient bypass channel.

2.4.4. Water Levels

Many of the submissions expressed concerns that the scheme should not result in any reduction in water levels upstream of the weir to below pre 2016 water levels.

These submissions highlighted the impact that lower river levels upstream of the weir had on recreational activities in Fermoy as a result of the breaches in the weir. Many of the submissions requested that the preferred option for the scheme be also required to provide for reinstating the upstream river level to similar levels before the weir breaches occurred due to the river's importance and significance for recreational activities in Fermoy.

It is proposed to reinstate river levels to pre-2016 levels. Previous topographical surveys from 2018 and 2010 both recorded the weir crest levels between 21.10mOD and 21.38mOD (Malin Head) upstream of the bridge and between 21.40mOD and 21.44mOD downstream of the bridge at the Mill Race section. It was also evident that the pointing in many of the joints in masonry in the Mill race wall had failed, thereby allowing flow through the structure as well as over it.

The weir is proposed to be remediated to a height of 21.45mOD at the upstream section of the weir and a height of 21.55mOD at the Mill Race section which will reinstate previous

river levels. The remediated sections of the Mill Race Wall will be repointed which will eliminate flow passing through the wall in that section of the weir.

The proposed weir levels indicated above will be confirmed by computational fluid dynamics (CFD) modelling which will be undertaken for the recommended scheme option. CFD Modelling will also consider the velocity and distribution of flows associated with the recommended scheme, providing a basis for confirming the level at which the inlet weir on the Bypass channel should be set.

A number of submissions also commented on the lower water levels that resulted from the breach in the weir. Restoring the weir will remove the breach and result in the water levels being maintained at a higher level upstream of the weir. In low flow (drought) conditions the weir will be dry with flow passing through the proposed bypass channel. The inlet weir at the upstream end of the Bypass channel will be no lower than 21.20mOD Malin. Detailed design calculations and modelling should allow this to be raised to a slightly higher level without affecting the minimum design flow criteria for the Bypass channel referenced in Section 2.3.5 above.

In the event that the eventual level of the inlet weir at the upstream end of the Bypass channel is considered to be low in normal flow conditions resulting in difficulties for rowing events on the river, a solution can be provided by means of demountable stoplogs or weir plates which can be used to raise the water level for the duration of the event to an acceptable depth. However, such an arrangement could not be left in place permanently as it would negatively impact on the operation of the fish bypass channel

2.4.5. Safety

Many submissions expressed a desire that modifications to facilitate the fish bypass should not result in any danger for leisure and amenity users, primarily water sports. The design of a fish bypass at Fermoy Weir must ensure that the river flows and velocities are designed to a degree such that they will not increase the risk to the safety and well-being of any potential river users. The use of CFD modelling will provide greater certainty regarding the velocities and current patterns in the main channel upstream of the weir.

Safety must also be a consideration in the design of any Bypass channel. Access to the edges of the channel must be limited to specific maintenance access points. This can be achieved by careful selection of side slopes and ground cover planting scheme which will be integrated into a landscaping scheme for the works in the triangle field.

2.4.6. Visual Impact

A submission from a stakeholder noted that *“The selected solution should be based on meeting all ... objectives with minimal structural changes to the weir and river itself. If a fish bypass channel is deemed necessary, it should again be minimal in size and scale and the use of mass concrete structures such as those deployed in the Bandon river fish bypass should be avoided. Conscious design efforts need to be made to preserve the visual aspect of the river, especially when viewed from the bridge. Natural materials and planting should be incorporated to create and visually enhance any bypass and the use of fencing, walls or any other hard barriers around such structures should be avoided.”*

A Fish Bypass channel at Fermoy Weir, if progressed, must be sized in accordance with the design criteria specified by Inland fisheries Ireland as detailed in section 2.3.5 above. Any structures required for a Bypass channel will be incorporated into the existing environment as much as possible with the appearances softened with landscaping, banked slopes, ground cover planting, etc. wherever possible. The height of vertical walls will be minimised and replaced with sloping banks, where possible, which will be softened by trees and shrubs, where practical, in order to integrate the proposed works into the receiving environment. The use of exposed steel sheet piles and concrete will also be avoided, where feasible, with alternative facing materials employed if possible.

The design intent for any such fish bypass channel is to integrate, rather than impose, the channel into its surrounds with a particular emphasis on the impact on views from Fermoy bridge.

2.4.7. Habitat and Ecology

This issue was of particular concern to many who made submissions with specific concerns raised regarding otters, eel migration, and the impact on the environment of the deterioration of the weir and of its proposed remediation.

The recommended solution will be required to comply with the conservation objectives of the river Blackwater SAC, avoiding negative impacts on qualifying species and interests. The scheme will also be required to provide for the passage of all fish species at all times of the year as advised by Inland Fisheries Ireland. The application to An Bord Pleanála for approval under Section 177AE will include a Natura Impact Statement and also an ecological impact assessment which will consider flora and fauna species which are not qualifying species for the Blackwater SAC but which are afforded protection under the Irish Red Book and similar habitats legislation. This assessment will include bats, otters, hares, badgers, birds, etc.

One submission referred to eel migration. A brush pass or similar measure will be incorporated in the remediated weir to provide for movement of eels over the weir. A smolt/kelt pass will also be included at the eastern end of the weir to provide for downward migration of fish.

2.5. Additional/Alternative proposals

A number of submissions included proposals or suggestions for consideration which extend beyond the scope of the brief for the project. These proposals were reviewed and are summarised below

2.5.1. Chester Weir

A number of local Stakeholders proposed an alternative option to the fish bypass, recommended by their own retained experts, suggesting that a ramp arrangement similar to that at Chester Weir on the River Dee in the UK could provide for fish Passage. They stated that they believed that *“this type of fish pass may suit Fermoy weir, a Chester type weir and fish could be adapted to work in Fermoy, we would hope that this proposal is not thrown out the window without giving it serious consideration. We believe this could have minimum impact and would work well for fish migration, the environment and our clubs and amenities on the river.”*

Research papers in relation to the Chester weir were reviewed when this option was put forward to TJOC by Fermoy stakeholder groups. These research papers noted that the Chester weir is located on the tidal estuary of the River Dee and incorporates holding pools where fish wait for tides to rise to enable them to swim upstream. The River Blackwater is not tidal at Fermoy. Also, the arrangement as proposed would have to be constructed against the weir in Fermoy, which is designated as a protected structure, and which would present issues with regards to planning and construction due to the protected nature of the weir under planning legislation. It would also involve instream construction in the area immediately upstream of the bridge and could introduce the risk of increased scour of the river bed at the bridge piers.

Inland Fisheries Ireland, who are the governing body responsible for approving the design of any fish passes, also reviewed the Chester weir and advised that the Chester weir option is essentially a rock ramp that would be too small to meet the necessary flow requirements, i.e., the larger of 12.5% of the long-term mean flow or 50% of the flow upstream of the weir. They also advised that in higher flows the fish would find it difficult to locate the entrance to the pass and so would be substantially delayed in migrating, could get injured or could lose eggs when attempting to jump the weir.

In view of the above, the Chester type weir is not considered a viable option for the scheme.

2.5.2. Canoeing/Kayaking

Five of the submissions referred to canoeing and kayaking with some referring to the use of the river upstream of the weir for safe canoeing activities for children. Another cited the example of the development of a kayak slalom course in conjunction with the Clonmel Flood relief scheme. Another proposed the incorporation of a freestyle kayak feature as part of the scheme. One local stakeholder sought the incorporation of a *“safe weir crossing for canoes and kayaks to help promote eco-tourism and support Blueway objectives.”* Another submission also stated that *“with the development of the Blackwater Blueway it is also important that provision is made for the safe passage of canoes.”*

This project is focused on the objectives of restoring the weir as a protected structure and providing for the free passage of fish to comply with the requirements of the Habitats Directive. Proposals for kayaking facilities would not contribute to meeting these project objectives.

2.5.3. Hydroelectric

Five submissions, including two stakeholders, referred to the possibility of incorporating a hydroelectric scheme into the weir or further downstream on the Mill Race.

The project is focused on the objectives of reinstating the weir and providing satisfactory fish passage to comply with the requirements of the Habitats Directive. The installation of turbines for hydroelectric power generation would not contribute to meeting these project objectives and would add significant additional costs to the overall scheme. As such, they are not considered any further.

2.5.4. Lock/Sluice gates

A small number of submissions advocated the incorporation of lock or sluice gates in the weir structure to facilitate fish passage, silt flushing or navigation on the river Blackwater.

The river Blackwater downstream of the weir is not navigable by boats. The provision of a lock gate within the weir would require significant modifications to the weir structure to incorporate this. In addition, a large section of the weir would need to be removed to accommodate the lock gate which would mean that Cork County Council's obligations to maintain the protected structure would not be fully complied with.

The proposal to construct a sluice gate on the line of the breach in the weir would not be in compliance with reinstating the weir to its original condition as required given the protected status of the structure under planning legislation. Therefore, this proposal would be contrary to CCC's legal requirements under planning law to maintain the weir which is listed as a protected structure. Any works proposals to the weir or in the river have to be assessed through an Appropriate Assessment, and subsequent Natura Impact Assessment, to demonstrate that any proposed works would not result in significant negative impacts to the qualifying interests listed under the river Blackwater Special Area of Conservation as designated under EU legislation. All works must also be in compliance with planning legislation with regards to carrying out remedial works to a listed protected structure, i.e. Fermoy weir.

A proposal for a sluice gate, as an alternative to the Fish Bypass, which could be opened and closed to facilitate the passage of fish would need to take account of any potential impacts on the river Blackwater SAC in addition to any potential impacts on the qualifying interests (and in particular fish passage for listed species) listed under the SAC which cannot be adversely impacted by any proposals. Delays in the passage of fish past the weir leave them open to predation.

Such an arrangement would also have the potential to introduce unintentional impacts such as scouring. The breaches which have occurred in the weir have also contributed to the accumulation of gravels downstream over recent years as a result of the flow regime in the river being altered. The OPW is responsible for the management of these gravel banks. Reinstatement of the weir will normalise the flow regime which will also address the scouring issue at the weir and subsequent sediment deposition further downstream. In light of the above concerns, these proposals are not considered any further.

3. CONCLUSIONS

The initial public consultation and local stakeholder engagement for the Fermoy Weir Remediation and Fish Bypass project generated significant interest and a large number of submissions which expressed a preference for a particular option, highlighted particular issues of concern or suggestive additions or alternatives for consideration.

The submissions have been reviewed in detail and the main concerns, issues and proposals have been identified, addressed and summarised in Section 2 above.

Having completed this exercise, we are of the opinion that the recommended scheme for the Fermoy Weir remediation and Fish Bypass project should comprise remediation of the weir, mill race and original fish pass in conjunction with the construction of a Rough Channel Pool Bypass (Option 9) as this option best satisfies the conservation objectives of the Blackwater SAC and the project objectives.

Concerns raised by stakeholders and the public regarding management of water levels upstream of the weir and safe design of the bypass intake to avoid creating dangerous currents can be addressed in more detail through the use of computation fluid dynamic modelling in the detailed design stage for the project.

The next step will be the further development of the preliminary design proposals for Option 9 Rough Channel Pool Bypass and the completion of an Appropriate Assessment (AA) Screening for the project.

The proposed works will take place within and immediately adjacent to the Blackwater River (Cork/Waterford) candidate Special Area of Conservation (cSAC) (Site code 002170). Consultation was undertaken with the Development Applications (DAU) Unit of the Department of Arts, Heritage and the Gaeltacht. The DAU highlighted the need to address specific conservation issues and question in any Appropriate Assessment and identified survey work that should be considered as part of any NIS and ecological impact assessment. The DAU observations and recommendations in relation to the scheme (including archaeology as well as nature conservation) were set out in a letter dated 28/02/2020 which is reproduced at Appendix B.

It is likely that significant effects on Natura 2000 sites cannot be definitively discounted. Therefore, a Stage 2 Natura Impact Assessment (NIA) will be required to assess the potential impacts from the proposed works and to determine whether the works as proposed will have a significant detrimental impact on the qualifying interests, conservation interests and overall integrity of Natura 2000 sites. If the conclusion of the AA Screening is as indicated above, a Natura Impact Statement will be prepared. The development is being undertaken by Cork Co Co. Therefore, the determination in respect of the Natura Impact Assessment must be undertaken by An Bord Pleanála in accordance with Section 177AE of the Planning and Development Act, 2000 (as amended).

Subject to acceptance by Cork Co Co of the recommendation for the Weir Remediation and Fish Bypass comprising Option 9 – the Rough Channel Pool Bypass scheme, plans, particulars and other information will be prepared for submission to An Bord Pleanála in accordance with the guidelines.

APPENDIX A

Submissions Received

Public Consultation Feedback Register

Summary of Responses

No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
12	20/11/2020	<p>The river Blackwater is a fantastic amenity that is under-utilised. This is a rare opportunity to open up this part of the river to multiple river users. We need to ask ourselves, when works are completed who will be able to access and use the river? What stakeholders will benefit? What activities can be carried out here? There is potential here for a blueway that could reach as far as Youghal.</p> <p>Flood relief works were completed in Clonmel a number of years ago. As part of this work a canoe slalom course was introduced as part of the Suir Blueway. This has been a huge success for the local community with sports clubs benefiting and new clubs formed as a result.</p> <p>I would advise that we look at the repair works with a wider view and unlock the full potential of this unique amenity. There are multiple stakeholders that would benefit from this work if it is done to maximise both the environmental and human benefits.</p>	0	Amenity use	Canoeing
2	04/11/2020	<p>Hi there,</p> <p>I am a freestyle kayaker from cork.</p> <p>I believe this weir could be developed to include a safe feature to train at for the sport of freestyle kayaking.</p> <p>I would love to engage with this project and see this resource be developed with kayaking in mind. The benefits of building a Freestyle feature could draw large kayaking competitions to the town along with blueway possibilities</p> <p>Let me know how I could be involved.</p>	0	Amenity use	Kayaking
30	03/12/2020	<p>To T J O Connor / Cork Co. Council</p> <p>We have watched the Salmon in Fermoy with disappointment over almost 20 yrs as they try to return to their stream of birth only to be beaten back by the Weir which is no longer being used for its initial intended purpose (mill).</p> <p>The other species who need to migrate have been cut off with almost 200 yrs .since this structure was constructed and some of these are listed in Annex2 of the Habitats Directive eg. the twaite Shad , 3 types of Lamprey(Brook. River , Sea) and of course the European eel which is Critically Endangered .</p> <p>A lot of taxpayers money will be spent on the weir refurbishment and provision of a Fish pass therefore it is absolutely imperative to get it right this time and reconnect the Blackwater in an ecological context and be in compliance with the EU Habitats Directive , Water framework Directive , New eel Regulation and the Consolidated Fisheries Act.</p> <p>One Case Study that i have seen is a Vertical Slot with baffles and a jagged base to facilitate eel migration which reduces greatly the water velocity and allow rest pools .</p> <p>I would request a copy of your final design choice to the email above .</p> <p>Sorry to repeat again but we have to get this right this time Yours Sincerely</p> <p>Please carefully consider the desire and needs of the citizens of Fermoy and its environs.</p>	0	Eel Migration	
93	18/12/2020	<p>Our heritage is precious and should be respected. The current use of the river by local clubs and organisations is also very relevant to the local community and needs full consideration. Failure to maintain water level levels on the Barnane side of the weir will result in the immediate demise of such clubs. For example, Rowing Club in Fermoy has a long and rich history interwoven with the town's cultural and sporting history.</p> <p>The environment is equally important. Having been part of the Fermoy delegation that travelled to the EC to understand the requirements of the EU Habitats Directive it seems repair of the existing weir using properly sourced materials is preferred and optimum solution.</p> <p>Decline in salmon fishing is seems (as described by independent fisheries experts) is a direct consequence of salmon smolts not returning from the North Atlantic. The decline is allegedly due to over fishing by 'factory ' trawlers. From recollection, the reduction in smolts has been from circa 70% (1970's) to circa 6% in recent years. In addition to the protection of the Munster Blackwater salmon fisheries, due consideration needs to be given to the important colony of rare and precious Freshwater Pearl Mussels located within the environs of the weir. This colony is deems of significant importance to EC Habitats and Ecology experts. The protection of all species needs to be carefully considered.</p> <p>Has construction of a 'Chester Weir' been investigated and considered?</p> <p>Failing a Chester Weir construction my preferred solution is Option 3.</p>	0	Habitat	Chester Weir
11	20/11/2020	<p>In the interest of amenity and future sustainability of fish stocks abd symbiotic requirement of fresh water pearl mussels with trout and salmon; option 9 provides the optimal plan of action to meet both amenity and ecosystem sustainability optimisation.</p>	0	Habitat	

Public Consultation Feedback Register

Summary of Responses

No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
26	03/12/2020	<p>Sir/Madam,</p> <p>Otters are known to forage in the vicinity of the weir. It is important that their free movement is not disrupted or hindered by the chosen course of action either during construction or thereafter.</p> <p>Regards</p>	0	Habitat	
36	06/12/2020	<p>Dear Sir</p> <p>We have been asked to submit comments to you regarding the reconstruction of a weir on the River Blackwater in Fermoy.</p> <p>Our office is based so we would be very aware of records of Otter, Lamprey and Salmon all of which are protected species. Riparian margins are also of huge value to invertebrates, otters and birds. Before work starts we would like to see an assessment of these species and the habitats affected by this and any AAs for the site. It is imperative that an assessment is carried out of the site before any decision is made on the new weir and its structure. We also do not want to see another situation like Bandon. Any structure should be in accordance with the river itself, its size and sympathetic to wildlife. We would also like to see some river margin management put into place.</p> <p>In addition, if construction does go ahead then we would like to see in place measures to ensure that there is least disturbance to otters and other species. Careful timing of works plus management of construction sections to ensure minimal disturbance.</p> <p>In essence we are not against a weir but we wish to see a proper survey undertaken on the ecology of the river section and upstream and downstream sections plus river margin management, appropriate construction techniques and consideration for the species and habitats that are present during any construction work.</p>	0	Habitat	
37	08/12/2020	<p>Whichever of the suggestions you choose, please remember that the fish should be our priority over and above the visual and amenity aspects. It is our duty to save the salmon which will soon reach unrecoverable levels, please don't let selfish people scupper this wonderful opportunity.</p> <p>I am not a fisherman!</p>	0	Habitat	

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Summary of Responses

No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
81	17/12/2020	<p>(1) The Munster Blackwater lies entirely within SAC No 002170. Therefore, the Law of the EU Habitat Directives applies to it and takes precedence over State or National Law. Thus, any project relating to structures such as weirs on this river MUST observe and comply with the Law of the Habitats Directive.</p> <p>(2) The EU Habitats Directive demands overall coherence and integrity in relation to the treatment of similar structures such as the Fermoy and Clondulane weirs. Thus, whatever is decided to be undertaken at the Fermoy weir must be consistent with that which is eventually undertaken at the Clondulane weir.</p> <p>(3) Any risks arising out of work to be undertaken at the Fermoy weir, such as fish passes, must be mitigated by a proper assessment of all the various alternative solutions as demanded by articles 6(3) and 6(4) of the Habitats Directive.</p> <p>(4) Any of the relevant Authorities may authorize a plan or project affecting a designated SAC only if they have made certain that it will not adversely affect the integrity of the site in question such certainty may only be achieved if it is the case that no reasonable scientific doubt remains as to the absence of such effects. This, the jurisprudence goes on to say, necessitates Appropriate Assessment of all aspects of such a project identified in the light of the best scientific knowledge in the field. Each such aspect must be examined both alone and in combination with other plans which may affect the site's conservation objectives. This applies particularly to any proposed work which involves removal of all or part of a weir where massive movement of gravel and other deleterious substances may be involved.</p> <p>(5) An Appropriate Assessment must be conducted prior to planning any project work at the Fermoy weir. Carrying out such as assessment would assist the various parties involved in better recognising the full force of the Habitats Directive and its Law, and in following it appropriately.</p>	0	Habitat	
92	18/12/2020	<p>(1) The Munster Blackwater lies entirely within SAC No 002170. Therefore, the Law of the EU Habitat Directives applies to it and takes precedence over State or National Law. Thus, any project relating to structures such as weirs on this river MUST observe and comply with the Law of the Habitats Directive.</p> <p>(2) The EU Habitats Directive demands overall coherence and integrity in relation to the treatment of similar structures such as the Fermoy and Clondulane weirs. Thus, whatever is decided to be undertaken at the Fermoy weir must be consistent with that which is eventually undertaken at the Clondulane weir.</p> <p>(3) Any risks arising out of work to be undertaken at the Fermoy weir, such as fish passes, must be mitigated by a proper assessment of all the various alternative solutions as demanded by articles 6(3) and 6(4) of the Habitats Directive.</p> <p>(4) Any of the relevant Authorities may authorize a plan or project affecting a designated SAC only if they have made certain that it will not adversely affect the integrity of the site in question such certainty may only be achieved if it is the case that no reasonable scientific doubt remains as to the absence of such effects. This, the jurisprudence goes on to say, necessitates Appropriate Assessment of all aspects of such a project identified in the light of the best scientific knowledge in the field. Each such aspect must be examined both alone and in combination with other plans which may affect the site's conservation objectives. This applies particularly to any proposed work which involves removal of all or part of a weir where massive movement of gravel and other deleterious substances may be involved.</p> <p>(5) An Appropriate Assessment must be conducted prior to planning any project work at the Fermoy weir. Carrying out such as assessment would assist the various parties involved in better recognising the full force of the Habitats Directive and its Law, and in following it appropriately.</p> <p>(6). Any project for change to the Fermoy weir should take into account the social and amenity benefits of the weir to the town of Fermoy and notably but not exclusively to the Fermoy Rowing Club.</p> <p>(7) Whereas the minster as delegated to the Local Authorities has the power to amend the listing of protected structures, the fact that the Fermoy weir is a structure protected under Irish Legislation should weigh heavily in favour of retention of the weir and the water levels above the weir.</p>	0	Habitat	
48	16/12/2020	<p>Please restore this local beauty spot to its former glory. Its an important area of our town from the Fisher men, rowing club and boat trips. It's the towns main tourist attraction and is very special to local people home and families that visit from abroad.</p>	0	Tourism	

Public Consultation Feedback Register

Summary of Responses

No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
16	30/11/2020	<p>Thank you for including in the Fermoy weir remediation and fish bypass channel stakeholder consultation.</p> <p>We fully understand and support the obligations on Cork County Council to prevent further deterioration of the weir and to carry out urgent remediation works on this protected structure. While we have no expertise in fish passage, we understand the basic philosophy that such remediation works need to allow for fish passage in line with the conservation objectives of the River Blackwater Special Area of Conservation (SAC).</p> <p>Recent public workshops carried out by clearly identified the River Blackwater as our town's greatest strength and opportunity. Key elements of this are the rivers beauty, its fishing potential as well as the many amenities it supports such as rowing, boating, and swimming. The deterioration of the weir has eroded each one of these and posed a huge threat to tourism and growth of Fermoy town. It is therefore imperative that the solutions proposed are evaluated keeping these key elements in mind.</p> <p>The selected solution should be based on meeting all above objectives with minimal structural changes to the weir and river itself. If a fish bypass channel is deemed necessary, it should again be minimal in size and scale and the use of mass concrete structures such as those deployed in the Bandon river fish bypass should be avoided. Conscious design efforts need to be made to preserve the visual aspect of the river, especially when viewed from the bridge. Natural materials and planting should be incorporated to create and visually enhance any bypass and the use of fencing, walls or any other hard barriers around such structures should be avoided.</p> <p>Finally, the opportunity provided by this development should be utilised to include</p> <ul style="list-style-type: none"> (i) Safe weir crossing for Kayaks/Canoes to help promote eco-tourism and support Blueway objectives. (ii) a hydro-electric facility which would provide sustainable energy. (iii) a water quality monitoring station that would provide real-time read-outs and trends of river water quality. <p>These facilities, in conjunction with the weir, would form the basis of an educational and visitor attraction where the benefits of such green infrastructure supporting enhanced biodiversity and combating climate change at a local level could be communicated.</p> <p>In conclusion, we welcome any positive developments with the weir in Fermoy. We are aware of the many options that are available and being considered. What we are certain of, is that we will look for guarantees. Whichever design is chosen we will look for this project to restore Fermoy's weir to its former functionality and that it will be maintained for future generations to enjoy.</p> <p>Again, thank you for including in this consultation process and we look forward to continued engagement.</p> <p>Kind regards,</p>	0	Visual Impact	Hydroelectric
33	04/12/2020	<p>I have reviewed the proposals for the Fermoy Weir and have the following comments to make.</p> <p>The primary deciding factors in selecting the best proposal must be maintaining the water level upstream of the weir, while improving the passage for the fish. It concerns me greatly that the river will become unusable for the local clubs (triathlon, rowing, etc) if the water level is lowered. Lowering the water level upstream of the weir is the equivalent of building a stone wall across the local football pitches - it becomes unusable overnight.</p> <p>As a parent of junior members of the local rowing club, I have seen the enormous benefit of the sport in terms of fitness, teamwork, responsibility, and comradery. I have often seen groups of teenagers walking towards the river-edge walk (Barnane), some with their bags of rowing gear, others with their bags of alcohol. They separate at the clubhouse, the rowers go in to train, the others head down Barnane to get drunk. That's the difference the club makes to the town. Fermoy rowing club (much like Munster Rugby in Limerick) is open to members from all walks of life and not an elite club as in other places. It is vital that this club continues to exist.</p>	0	Water Level	Fish Migration Data
10	20/11/2020	<p>The sole purpose of the weir in it's present form was to raise the water level upriver of the bridge and to chanel some of that water via the sluice gates and mill head race to the two 35 ft. diameter waterwheels (Niall Brunicardi's John Anderson of Fermoy) which powered the mill. Having dropped 15 or 16 ft. at the wheels (16 ft. head) , the water returned to the river further downstream via the tail race. This power generating system is largely present albeit in a state of disrepair. This system could be modernised to generate green electric power for the new Health Centre and / or supply to the grid.</p> <p>A key part in upgrading this system would be restoring the weir. A water turbine driven generator would have to be installed possibly in the site formerly occupied by the waterwheels. There are companies in both Ireland and the UK who could evaluate the power generating potential of the system. If viable, finance may be available via grants and from the investors in the new health centre. This green project would be good publicity for the town and ensure the retention of the weir.</p>	0	Water Level	Hydroelectric
17	01/12/2020	<p>I would appreciate it if you take seriously the concerns of the citizens that actually live in the town of Fermoy about the continuing shocking state of the River Blackwater. Because of the damage done to our beautiful river during the construction of the flood barriers our river is all but none existent during the summer months. I myself use the river during the summer months when I kayak on the Blackwater. This year I found myself having to get out of the boat as there just wasn't enough water under my kayak!! The river is all but gone in the summer and very unsightly!</p> <p>The river is the soul of our town, please give us back our soul!!</p>	0	Water Level	Kayaking

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Summary of Responses

No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
14	26/11/2020	<p>Any of your drawings above are not showing or recommending any of what I am going to suggest, Why I may say?</p> <p>What I am now proposing to be done here is put the weir back to what it was before is crumbled up and was washed away due to the non maintenance of the weir bank.</p> <p>Bring the water level above the bridge back up to what it was before the weir bank was washed away, as this is vital for the sporting activities of both the rowing club, and all other sports that were using the river.</p> <p>Make a new fish pass that will work when water levels are low, as the present one did not work with low water.</p> <p>The mill island may not be requiring water to flow through it anymore, but I still believe it should be allowed some water to pass through it as this was always the run of the water here.</p> <p>As I believe this is a protected structure then it should be kept to as much as it was for future generations to enjoy.</p>	0	Water Level	
18	01/12/2020	<p>I have partaken in numerous swimming and Triathlon events in the river Blackwater in Fermoy and my children all are active rowers in the Fermoy rowing club.</p> <p>It has been immensely disappointing that in recent years events have not been possible in Fermoy due to the failure of the 200 year old weir. This weir was perfect for 200 years until it was damaged by construction works undertaken on behalf of the OPW to install (much needed) flood defences. It is clear from the google maps satellite view that the contractors drove piling into the bed of the river right up to the weir at the exact point where, a short few year later, it collapsed and washed away.</p> <p>It is heartening to see finally some proposals for restoration of this listed and protected structure, but i would like to get assurances that any implementation of restoration work restores the upstream level to those pre breach, and that essential work undertaken to meet the requirements of the habitats directive is done in a manner that is, sensitive to the existing built environment (no new massive concrete "additions" to the weir and bridge area), maintains the slow flow levels upstream of the weir which provides it's own habitat, and restores the water level to the historic level - the level that all amenities built during the flood defence work were built to!</p> <p>Furthermore I would like to see an opinion from the European commission specifically indicating why any new fish pass needs to be build before the weir can be restored to it's previous state. It is my understanding that in 2014 the European Commission was consulted and indicated there was no need to install anything if the existing fish pass and lowered area on the weir were restored to full functionality. This opinion seems to be re-enforced in the environmental impact analysis undertaken ahead of the existing emergency works currently being undertaken in the river ("In these circumstances it is expected that for this period, fish passage upstream will be facilitated by water flow to the existing fish ladder, and/or to the area to the south of the fish ladder on the weir where there is a shallow trough type feature on the weir surface" https://assets.gov.ie/91084/dfb5c56b-f670-4c54-808d-247ff6a80ccf.pdf)</p>	0	Water Level	
25	02/12/2020	<p>As of I would like to submit the facts that are essential to maintain and operate in a manner that is safe and within the rules of the</p> <p>The slipway was built in Fermoy with the inclusion of We have been providing a service for the last</p> <p>thirteen years, when water levels allowed us. Our has become an integral part of activities on the river backwater. We cannot provide a service to the people unless the water levels are restored back to pre 2016 levels. I remind you that have the right to take part in our activities ie angling that is in line with the current EU convention</p> <p>Excluding our from full function is i. My opinion, Discrimination. We have always paid attention to conservation of all our waterway and its fauna habitat and wildlife. Thank you</p>	0	Water Level	

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27	03/12/2020	<p>I am a Fermoy resident. As such we have traditionally used the river Blackwater upstream of the weir for safe canoeing activities for Fermoy children aged from 6 to 18 since . My children are also involved in Fermoy Rowing Club, I swim in the river with Blackwater Triathlon Club and I am an active trout fisherman. The river Blackwater is central to the lives of everyone in Fermoy, so I welcome the opportunity to provide this feedback.</p> <p>Before commenting on the options, I would like to note my disgust at the way our local politicians and civil/public servants have allowed this environment, ecological, social, cultural, sporting and historical act of negligent vandalism to occur. I note your presentation includes the note that Cork County Council are obliged to prevent the deterioration of the weir - clearly, they have failed miserably in doing this.</p> <p>In addition, the current works ongoing to 'stabilise' the Mill island seem to me to be needed because of damage caused by the OPW and contracted parties to install the flood defence system. It find it hard to watch the daily horror of mechanical machinery in the river and know that nobody will ever be held accountable for this. If the construction of the flood works were to blame for the acceleration of the weir deterioration, then I believe they should be required to cover all costs for immediate and full restoration of this historic structure.</p> <p>In reviewing the options laid out, I am particularly concerned about restoring the upstream water levels to a safe and usable level. I wasn't aware that the previous weir had been a barrier to fish passage, so I feel that issue could do with some further explanation with supporting data by IFI. That said, I agree any solution has to allow for the easiest passage of salmon upriver through the weir.</p> <p>Any solution that does not restore upstream river levels to those before the collapse are unacceptable in my view. From what I can see of the information provided, options 1, 2, 4, 6 and 8 do not deliver this requirement.</p> <p>Option 3 is difficult to assess based on the graphic provided on https://fermoyweir.ie/. If it does not restore water levels upstream, then it is unacceptable to me.</p> <p>Option 5 is also difficult to assess without further information. If it maintains upstream levels safely and reconstructs the weir downstream and to the right of the bridge, this could be an acceptable solution.</p> <p>Options 7 and 9 - do these involve reconstruction of the existing weir and maintaining upstream safe water levels? If so, then these may also be solutions. However, it is important that the weir is reconstructed immediately and is not dependent on land purchase of the triangle field area. If this is likely to delay reconstruction, then this is not a viable solution in my view. In terms of the noted visual impact, I am confident that architects and designers can come up with a visually appealing design, and indeed make this into a local attraction.</p> <p>I trust this feedback will be considered and I look forward to seeing the full restoration of our local weir and environment as soon as possible.</p>	0	Water Level	
40	16/12/2020	<p>I would like to submit my concerns regarding the proposals for the repair of the weir. I am a rower and have represented Ireland internationally. I originally started rowing in Fermoy Rowing Club, but along with several other members, was forced to leave in 2019 due to the collapse of the weir greatly reducing water-levels. Fermoy also lost its annual regatta in 2019 due to insufficient water-levels. This regatta is held in high esteem in the rowing community nationwide and was a great loss to us and also to the town of Fermoy. The Blackwater in Fermoy is, in itself, a beautiful stretch of water which is central to the appeal of the town and seeing it recede from the banks and the riverbed becoming exposed over the summer was absolutely awful.</p> <p>I am hugely concerned that none of the proposals seem to guarantee that the water-levels (and flow) will be restored to pre-2018 levels. Sufficient water levels and a slow flow of water are paramount to the safety of any activity on the river.</p> <p>Furthermore, as the weir seems to have been damaged by the construction of the flood defense carried out by the OPW, I am at a loss as to why they are not obliged to restore it - particularly seeing as it is a protected structure.</p> <p>Regards,</p>	0	Water Level	
44	16/12/2020	<p>Whatever is chosen, the following must be provided.</p> <ol style="list-style-type: none"> 1 the water levels on the upper stretch of river are restored to the previous levels for all sports and users 2 the weir is restored to it glory with water flowing and not just a feature to gather Debris and rubbish 3 any works completed should be safe to every river user today tomorrow and the future. 	0	Water Level	

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45	16/12/2020	1. I would to see levels in the river after works carried out, to be similar to those in the past prior to damage to enable all sports and leisure activities to resume again. 2. A safe and sturdy structure to last for many generations to come in place. 3. A natural flow of water over the weir to be seen by locals and tourists alike. 4. A decent pass for fish to be in place to enable them to swim upriver and return to their spawning ground.	0	Water Level	
46	16/12/2020	With regard to Fermoy Weir, I respectfully ask that 1 the water levels on the upper stretch of the river are restored to the previous levels for all sports and users 2 the weir is restored to it's former glory, with water flowing 3 any works completed should be safe to every river user today tomorrow and next generations	0	Water Level	
50	16/12/2020	Good afternoon, Whatever action will be decided upon the following absolutely needs to be taken into account: 1 - the water levels on the upper stretch of river are restored to the previous levels for all sports and users 2 - the weir is restored to it glory with water flowing and not just a feature to gather Debris and rubbish 3 - any works completed should be safe to every river user today tomorrow and future generations	0	Water Level	
51	16/12/2020	The bridge and weir are the heart of Fermoy town. It is unbelievable that it was left to get into this state of disrepair. The council need to do there utmost to ensure that the weir is restored so that the water levels are returned to previous levels and to ensure that not only can we enjoy the river but also our children and grandchildren. Fermoy from an economic point of view also need the tourists and revenue that come from the regattas and events such as the triathlon. Do the right thing and save out weir.	0	Water Level	
52	16/12/2020	I have spent many days at regattas in Fermoy over the years and it a pity if this issue with the weir is not remedied so countless others will not have the happy days at Fermoy regatta. So it would be good to keep the water level above the bridge.	0	Water Level	

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54	16/12/2020	Restore the weir and restore the the water lever to its original level. If you have to put in a fish pass make sure it doesn't require manual intervention to maintain water levels.	0	Water Level	
56	16/12/2020	In relation to the major deterioration of a weir that is so beautiful that it was on the stopping list for bus tours of foreign tourists for years I have this question: Why can we not just repair the structure as it was? This structure, including the lovely fish pass, functioned so well for hundreds of years as an amenity for the Fermoy area while also allowing fish to move up-river freely. Maybe I am wrong but I think that today's fish are every bit intelligent as those that managed to negotiate the existing fish pass for centuries. regardless of which options is decided on - water levels must be retains as per previous levels to ensure the continuation of all water sports	0	Water Level	
57	16/12/2020	Please ensure that : 1. the water levels on the upper stretch of river are restored to the previous levels for all sports and users . 2. the weir is restored to its former glory with water flowing and not just a feature to gather Debris and rubbish. 3 any works completed should be safe to every river user today tomorrow and for the next generations. 4. Fermoy gets its beautiful weir back to exactly how it looked hundreds of years ago	0	Water Level	
59	16/12/2020	I demand that whatever is chosen, that 1 the water levels on the upper stretch of river are restored to the previous levels for all sports and users 2 the weir is restored to it glory with water flowing and not just a feature to gather Debris and rubbish 3 any works completed should be safe to every river user today tomorrow and next generations	0	Water Level	

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Summary of Responses

No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
60	16/12/2020	<p>Please see below</p> <ol style="list-style-type: none"> 1. I want assurances that the water levels on the upper stretch of river are restored to the previous levels for all sports and users. 2 The weir needs to be restored to its former glory with water flowing and not just a feature to gather debris and rubbish 3 Any works completed should be safe to every river user today tomorrow and next generations 	0	Water Level	
61	16/12/2020	<p>I do not want the town to loose its picture postcard iconic view of the river and weir. The water levels on the upper stretch of river should be restored to the previous levels for all sports and users of the Blackwater. We need to encourage tourism in our town and the river has been a huge source of it for many many years. The weir needs to be restored to all of its glory, with water flowing, salmon jumping, not the eye sore it has become, gathering debris and rubbish. All works completed should be safe to every river user today tomorrow and our future generations.</p>	0	Water Level	
62	17/12/2020	<p>A great opportunity was missed to repair the damage to the Wear before it got worse as is now the case. (During the flood defence work) It is now imperative that what needs to be done should be done at the earliest possible date without passing the buck all the time . The Wear if part of Fermoy and to lose it would be unforgivable not only to the people of Fermoy but also the vast amount of people who used to travel here for holidays and for the recreation purposes. I beg you to please turn our Wear back into ths beautiful vision that it was .</p>	0	Water Level	

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63	17/12/2020	<p>Why is it taking so long to fix</p> <p>At least 15 years looking at it being undermined by the river</p> <p>Please reinstate the weir and save the river fish life. Nature that are supported by the level of water held back by the weir Also all water sports that can take place if weir is repaired</p>	0	Water Level	
78	17/12/2020	<p>Whatever decision is taken the following are a priority.</p> <ol style="list-style-type: none"> 1. Water levels on upper stretch of river are restored to the previous levels for all. 2. The weir is restored to its glory with water flowing and not just a feature to gather debris and rubbish. 3. Any works completed should be safe to every river user today, tomorrow and for future generations. 	0	Water Level	
84	17/12/2020	<p>I was fortunate to grow up in Fermoy. The river Blackwater and in particular the weir have been a source of joy over the year in so many different ways. The benefits are not limited to people. The wild life and vegetation in the vicinity are vast and add to the life of the town. At all costs we must protect / save this resource.</p> <p>I ask that whatever solution is chosen please ensure that:</p> <ol style="list-style-type: none"> 1 the water levels on the upper stretch of river are restored to the previous levels for all sports and users 2 the weir is restored to its former glory with water flowing and not just a feature to gather debris and rubbish 3 any works completed should be safe to every river user today tomorrow and for future generations <p>Kind regards</p>	0	Water Level	
85	17/12/2020	<p>Whatever option is selected for fermoy weir, I request that 1. the water levels on the upper stretch of river are restored to the previous levels for all sports (especially rowing, swimming, and triathlon) and users.</p> <p>2. the weir is restored to its glory with water flowing and not just a feature to gather debris and rubbish 3. any works completed should be safe to every river user today, tomorrow and for generations to come 4. the water levels should be safe for children to learn water sports. The rowing club has provided a great social service to the town, engaging teenage boys and girls in sport for many many years . This has a knock on effect on their physical and mental health, reduces obesity levels and reduces anti-social behavior around the town. This value to the town can not be overestimated and should be prioritized for fermoy weir.</p>	0	Water Level	

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86	17/12/2020	Whatever option is selected for fermoy weir, I request that 1. the water levels on the upper stretch of river are restored to the previous levels for all sports (especially rowing, swimming, and triathlon) and users. 2. the weir is restored to its glory with water flowing and not just a feature to gather debris and rubbish 3. any works completed should be safe to every river user today, tomorrow and for generations to come	0	Water Level	
89	18/12/2020	Fermoy weir, I request that 1. Water levels on the upper stretch of river are restored to the previous levels for all sports (including rowing) and users. 2. The weir is retired to its glory with water flowing and not just a feature to gather debris and rubbish. 3. Any works completed should be safe to every river user including rowing.	0	Water Level	
90	18/12/2020	Fermoy weir, I request that 1. Water levels on the upper stretch of river are restored to the previous levels for all sports (including rowing) and users. 2. The weir is retired to its glory with water flowing and not just a feature to gather debris and rubbish. 3. Any works completed should be safe to every river user including rowing.	0	Water Level	
91	18/12/2020	Fermoy weir, I request that 1. Water levels on the upper stretch of river are restored to the previous levels for all sports (including rowing) and users. 2. The weir is retired to its glory with water flowing and not just a feature to gather debris and rubbish. 3. Any works completed should be safe to every river user including rowing.	0	Water Level	
106	19/12/2020	1 the water levels on the upper stretch of river are restored to the previous levels for all sports and users 2 the weir is restored to it glory with water flowing and not just a feature to gather Debris and rubbish 3 any works completed should be safe to every river user today tomorrow and next generations	0	Water Level	

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No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
107	19/12/2020	<p>Whatever is chosen, that following must be guaranteed</p> <ol style="list-style-type: none"> 1 the water levels on the upper stretch of river are restored to the previous levels for all sports and users 2 the weir is restored to its glory with water flowing and not just a feature to gather Debris and rubbish 3 any works completed should be safe to every river user today and tomorrow 	0	Water Level	
42	16/12/2020	Weir to be restored to its original design and levels. Additional fish pass to be constructed in triangle field if necessary	0	Water Level	
49	16/12/2020	<p>To whom it may concern,</p> <p>I would prefer to see the existing weir repaired with minimal interruption to the River, wildlife and the community of users and observers whom enjoy it.</p> <p>However whatever option is selected please ensure:</p> <ol style="list-style-type: none"> 1. The water levels on the upper stretch of river are restored to the previous levels for all sports and users 2. the weir is restored to its former glory with full flowing water with no opportunity for the gathering of debris and rubbish. 3. Any works completed should be safe for every river user today, tomorrow and for future generations. 4. During the construction and repair that proper ongoing communication be established with the business community in the impacted area to ensure the least amount of interruption to service. <p>yours sincerely,</p>	0	Water Level	
102	18/12/2020	<p>I am a kayaker and see the rebuilding of Fermoy as an opportunity to develop a slalom type course within the existing breach. The creation of a mini canal beside the existing flood defence wall would protect the wall, feed the mill stream and allow kayakers to bring boats safely back to the start of the slalom course. The course would be a rock garden type structure with gradual drops down the remaining channel.</p> <p>This would keep river levels above the weir at pre existing levels, allow for the migration of fish, allow non swimming mammals migrate via the mill stream and canal, create an additional sporting amenity and would not require additional land to be purchased. If this structure was extended a little further downstream then a permanent protection for Mill Island could be incorporated.</p>	0		Kayaking

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No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
4	08/11/2020	<p>Interesting that any of your proposed solutions do not include what I suggested for this weir and Clondulane weir, at least ten years ago, when all this nonsense and money squandering commenced. What a terrible short sighted waste of money this has all been. Wonder who else submitting proposals all along has actually ever done anything with a weir.? This is all a relatively simple and cheap job to do. Firstly crane in half tonne sand / gravel bags, direct off a truck on the street, to block the water flow that side.. They can at finish be re hooked and craned back out. Having blocked off the that spur of water that originally led down to the mill, construct a sluice gate on the line of the missing part of the weir. This need only be three meter wide by 2 meters deep and be done with hydraulic services.</p> <p>This sluice gate has its sill at below weir sound ground level and this sill leads to a small rock, roughened channel back out into the river, this rough bottom and side, channel, ending in a deeper rock armored pool.</p> <p>Then, by agreed protocol, depending on the time of year, this gate is opened for a number of hours. Probably once a week, between 0.0am and 6am. Monday mornings, so as not to interfere with the rowing club's weekend activities.</p> <p>This action will have two results.</p> <p>Firstly, any fish wishing to go up, can go up and any wishing to go down likewise.</p> <p>Secondly, the scouring action of this side flow from the sluice gate, will scour out the rock armored holding pool. By the way, this pool can have inbuilt angling / poaching inhibitors installed at construction.</p> <p>This scouring process is of extreme importance, as it is the mass downstream migration of sands and gravels over the last forty years, that have so exacerbated the problem of upstream migration of these weirs. This migration of course caused by the mass over topping and shading out the dendrites, such that the keystone aquatic weed species, the ranunculus, is no longer present. Apart from its silt and sand gathering properties, thus leading to the provision of clean spawning gravels, it also provides a home and breed ground for a myriad of aquatic live, on which the young fish fed.</p> <p>Thirdly, of massive interest to anglers, the very opening on a regular basis of the gate, will cause the sensation of a false flood, for many kilometers down stream, causing fish to move out of station, and be consequently put into aggressive mode, or what is referred to as "on the take".</p> <p>Any weir mending can be quickly and easily accomplished, by sinking with a few large stones, an FIBC type bag, with plastic liner. Once in situ, a concrete mix can be piped in to fill the bag, and then the neck tied, so no cement mix can escape into the water. Adjacent bags can be pieced through, one to another, by driven lengths of Reebars, so as to form a large stable mass.</p> <p>Of course none of this will suit you engineers, because it would only cost a fraction of the other proposals entail.!</p> <p>A point of interest for you. The quay wall above the bridge on the South side, before the post revolutionary re naming frenzy, was called Grubb's Quay. built dozens of weirs and mills, though mostly on the Suir system, and over their two hundred years of use, the rivers were teeming in salmon. No, this is all ignorant striking out at the nearest soft target.</p>	0		Lock/sluice Gate
8	16/11/2020	<p>Hello</p> <p>I suggest that it maybe possible to incorporate a lock gate with a weir to create river boat tourism on the Blackwater.</p> <p>This would be another attraction for tourists.</p>	0		Lock/sluice Gate
5	14/11/2020	<p>I would like to recieve information on the proposed new structure.</p>	0		
13	23/11/2020	<p>Phone Call to Fermoy Area Office advising that texting relating to present state of weir being a barrier to the passage fo fish was misleading to the public</p>	0		

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22	02/12/2020	<p>which represents are petitioning Cork County Council for an extension of the Fermoy Weir Public Consultation, due to expire this Friday 4th.</p> <p>The reasoning is quite simple. Many of our members have been cocooning for the past 6 weeks and are only realising now the deadline for the Weir Public Consultation. Many are concerned that they could not view properly the Eighty Four page document and maps on www.fermoyweir.ie We believe that the Eight Four pages should be printed on A1 posters and displayed in Fermoy Library and that a proper Public Meeting could be held now under the new relaxed restrictions, on the week of 14th December, in Fermoy Community Theatre, where Questions could be put to the experts on Heights, Depths, Flows and above all Safety Concerns, of the your preferred, Option 9.</p> <p>Having had a restricted Zoom meeting, last weekend. Members of questioned the measurement on Page 69, regarding the width, depth and flow at the mouth of the proposed new fish pass.</p> <p>are meeting TJO'Connor representatives on-site, this afternoon, to discuss our concerns, but that will not allow us enough time to get back to our sixteen committees, to discuss the meeting and the answers given and we know there will be more questions.</p> <p>We trust you will allow the people of Fermoy an extended two weeks, to allow them to give their approval.</p>	0		
24	02/12/2020	<p>I am glad to see this focused and practical approach to the Fermoy weir remediation issue. All developments with regard to Fermoy weir and the fish bypass channel are to be welcomed. I note that there are a number of interesting options and I am pleased that members of the public are being afforded the opportunity to voice their opinions on this subject.</p> <p>As a business owner based in Fermoy, I acutely understand the importance of the River Blackwater for the town. It is a popular tourist attraction, both for its natural beauty and its fishing potential, and facilitates many amenities including rowing, swimming, and boating.</p> <p>It is essential that the necessary works are carried out without delay. It is equally important that the works do not negatively impact on the visual aspect of the river.</p> <p>I look forward to seeing which design is chosen for this project. ensure that the necessary works are realised without further delays and it is prioritised.</p>	0		
34	04/12/2020	<p>A Chara,</p> <p>Thank you for making me aware of this project. Can you please keep me updated on progress.</p> <p>Le meas,</p>	0		
39	14/12/2020	<p>In respect of option 9 which I understand from local action groups is the preferred option, the drawing on page 69 of the attached report has dimensions indicated as "over datum" But does not specify what datum is used. The OPW water levels are referenced from poolbeg, but this drawing cannot use the same as the water level both upstream and down stream of the wier as indicated on the OPW waterlevel.ie website are both higher than the height of the weir indicated on the drawing.</p> <p>Also the drawing specifies wier to be raised to 21.45 OD but does not say what level it is being raised from.</p> <p>Regards</p>	0		
43	16/12/2020	<p>Fermoy weir is a protects structure. Please refurbish it to it former glory.</p> <p>It's what every local person in the town and surrounding area want. Please respect their wishes.</p>	0		
47	16/12/2020	<p>I would like to see the fermoy weir repaired as it's the main beautiful asset to the town of fermoy.</p>	0		

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No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
53	16/12/2020	Restore the river to it's original state	0		
58	16/12/2020	Fix the weir	0		
67	17/12/2020	Save the wier	0		
73	17/12/2020	It would be desperate if the weir was not fixed and rectified. Whatever option is most viable but this is important for Fermoy Town and its surrounds.	0		
83	17/12/2020	Bring back the to show and a bunch of lads how to put them stones back together during the summer months	0		

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87	18/12/2020	<p>The following is a submission on behalf of in respect of the proposed remedies to Fermoy weir and the manner of determining the appropriate project. is a body in existence for many years dedicated to the protection and conservation of the River Blackwater with particular emphasis on its amenity .</p> <p>Although an important facet of the democratic process the public consultation element should not and may not be determinative of the appropriate works to be carried out to the Fermoy weir. Even if the apparent public view is in favour of a particular project if that project does not comply with environmental and planning obligations, either domestic or European, then it may not proceed.</p> <p>It is imperative therefore that any such works must be in alignment with the River Blackwater's status as a Natura 2000 site / Special Area of Conservation and in compliance with Irish law and EU law in carrying out works on or to such sites. In accordance with prevailing jurisprudence any such works must have the necessary and relevant environmental assessments made and no works may be carried out unless the prevailing scientific view suggests the works are appropriate to these purposes. It must be ascertained that the works will not adversely affect the integrity of the SAC site.</p> <p>The word ascertained is key to this legal obligation; the obligation is not a guideline or suggestion but a non-derogable standard which may not be ignored or "rubber stamped". Any works which are not definitively shown as being not adverse to the integrity of the SAC status are not permissible. Before any substantive works take place the necessary assessments required include an examination of the effect of any project on both upstream and downstream habitats and environments and the combined effect of such project together with any other relevant projects in particular the the proposed works to the Clondulane weir immediately downstream.</p> <p>It is submitted that "protected structure" status of the weir is of minimal relevance given that it is now largely destroyed. – its reconstruction with modern materials will not recreate any architectural or historical importance. Any protected structure may be altered or removed provided planning permission is obtained - protected status means no more than it may not be interfered with without planning permission.</p> <p>Therefore the appropriate project is that which complies completely with the River Blackwater's SAC status and which is most effective to ensuring the integrity of the species protected thereunder. It is respectfully submitted that urgency of repair is no longer elemental to this issue – a ministerial order in respect of the removal or alteration of Fermoy weir for the purpose of meeting SAC obligations has been in place since 2006. Since that time no substantive works have been carried out. The collapse of the Weir downstream of the Fermoy Bridge has now actually improved migration of the protected species. It is insupportable to suggest that there is now an urgency which has not existed heretofore. Minimal gravel works will allow for largely unimpeded fish migrations whilst the correct remedy is determined and implemented.</p> <p>The appropriate remedy is not one which should be chosen or even influenced by plebiscite. The obligations in respect of such project are clear and the chosen method must be in compliance with those and not otherwise. Whether this is by way of rock ramp above or below the bridge, allowing the disintegration of the weir or by removal of the weir in its entirety is a question for engineering and environmental science as to whether any or all of these comply with the obligations of the Habitats Directive. If more than one so complies then that remedy which is least intrusive to the habitat must be the chosen approach.</p> <p>is grateful for your attention in this matter.</p>	0		
88	18/12/2020	Please fix our weir. Fermoy is a beautiful completed by the river Blackwater. We need it repaired now. Thank you	0		
95	18/12/2020	Please return to its formal glory please and thanks	0		
99	18/12/2020	Please repair our wonderful weir and dont lose this historic structure	0		

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101	18/12/2020	Please please restore our weir to it's former glory and make the river safer for everyone to use. Do not spoil what has been an integral part of our town for generations.	0		
105	19/12/2020	Please restore and repair weir to its original standard so people can enjoy again the weir and the river.	0		
72	17/12/2020	<p>For far too long man has done everything to command and control nature, to treat the natural world as if it is there for mans pleasure only. The river Blackwater is no exception, and has been altered throughout history for one reason only, and that is for the benefit of humans to the detriment of nature and biodiversity.</p> <p>For once lets look at the bigger picture. Presently there has been much debate about the Blackwater been a Special Area of Conservation (SAC). Such has prevented the development of various projects along the Blackwater, and Cork County Council are seeking the area to be removed as a SAC. Such regression would do nothing but to harm further or already degraded waters, continued lose of flora and fauna and habitats that are already in serious and irreversible decline.</p> <p>Without doubt the lose of the weir would have adverse consequences on the rowing club, however, the continued manipulation of our rivers are far more serious than the inability for one to hold an annual regatta. There is at present ample water for boats to row from the club up. There is also ample water at the East side of the river to row, yet that was not considered. There is plenty and ample water and space for fish to make there way up stream. We have to respect the fact that the area is a SAC protected by EU and National Law, that is there to protect our depleting biodiversity.</p> <p>The best option is to either let be the current situation, for the weir to slowly deteriorate, like many other protected structures throughout the State that are falling into disrepair. Are we to expect the State to repair every protected structure, unlikely.</p> <p>Let us for once allow the Law to reflect the serious situation of biodiversity lose and habitat lose. The most important element of the River Blackwater, is the Freshwater Pearl Mussel, that is very sensitive to change. Any such works could see the lose of this endangered species.</p> <p>Let us for once do right by nature, let us progress, rather than regress, and use this opportunity to give effect to the Nature Directives and allow nature to be nature and for once let the Blackwater flow in the manner it was intended, free from interference.</p>	1	Habitat	

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96	18/12/2020	<p>Dear Sir/ Madam,</p> <p>As a lifelong Fermoy resident and active member of Fermoy Rowing Club, it is my personal opinion that Option 3 as stated in the Fermoy Weir Remediation and Fish Bypass Project consultation website is the best option available.</p> <p>The weir has served both the residents of Fermoy and its fish population well over the last ~200 years when maintained and kept in working order. Fermoy has a long and illustrious angling history with two World Angling Championships (~1930, 1968) held on the River Blackwater in the Fermoy area. It is only since the deterioration of the weir in the past several years where we have seen concerns raised for the wellbeing of the fish population. It is my opinion that the weir should be brought back to its former glory which has proven its ability to sustain a healthy fish population for the last two centuries. Option 3 provides the closest solution to the original.</p> <p>The weir has also supported the proliferation of several reactional clubs including Rowing, Triathlon, Angling, Canoeing, Sub Aqua, etc. These clubs have provided invaluable social and sporting opportunities to the residents in Fermoy. These activities rely on maintaining the current depth and flow characteristics of the river both East and West of the weir. Again, option 3 ensures that these clubs shall continue to prosper and serve the people of Fermoy.</p> <p>I appreciate you taking the time to consider my opinion and I do hope that the Office of Public Works takes the opportunity option 3 provides to restore Fermoy Weir and Fish Bypass to its former glory.</p> <p>Kind Regards,</p>	3	Amenity use	
80	17/12/2020	<p>You can't keep destroying natural habitats and think that it's okay because it's benefiting you in some way. We need to weird to be restored back to its original state, not only for the benefit of the state of the weird but for the life within the river. You have destroyed its habitat with your lack of interest in your general public and the life that matters on this earth(not us). Water levels need to be back to normal. This river should be safe for every living thing to use and live in!</p>	3	Habitat	

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97	18/12/2020	<p>We cautiously welcome the fact that the destruction by neglect of Fermoy weir - the cornerstone of the modern town - is attracting some attention, albeit without concrete remedy in sight. Nevertheless, the long saga of its neglect means a lot of damage has been done, not just in terms of the weir itself, but to the broad web of local activity and industry that has grown up around the weir. This includes damage to local sporting and social clubs, and amenities, including the Rowing Club, the Wheelie Boat, the swimming clubs, and the Triathlon, all of which bring people to the river and the town.</p> <p>These activities have effectively been shut down due to breaches on the weir, and it will be difficult for them ever to recover from the huge losses incurred, not just in terms of revenue but in terms of the river as vital amenity. For example, rowing club membership has fallen from 150 to just 30. Rowing in two pods of 15, the remaining members have just 800 metres of safe water available to them. Various weir-dependent associations have lost many members forever to clubs in Cork, where there are miles of safe water, something the Blackwater once offered too before the breaches at O'Neill Crowley Quay. There has been no regatta for the last two years, and its resumption is unlikely in the next three, starving both the club and the town of significant direct and indirect income for the foreseeable future.</p> <p>To undo this damage to the social and economic life of the town, it is imperative that water levels be returned to and maintained at historic levels upstream of Fermoy's Kent Bridge.</p> <p>We are conscious of our obligations to the safe migration of salmon, lamprey, chad, eels etc., and our obligations under the Habitats Directive and Special Areas of Conservation (SAC), and SAC's "How Human Beings can co-exist with Wildlife, Fish and Fauna", and our proposals below reflect our commitment to this aspect of river life too.</p> <p>It is representative of the broad range of activities on the river that are important both in themselves and to the wellbeing of the overall economy, society and ecosystem of this Blackwater town. It enjoys unanimous local community and business support.</p> <p>considers three of the possible options proffered to be acceptable, and rejects out of hand all remaining options in this consultation process (namely options 1, 2, 4, 5, 6, 7 & 8).</p> <p>The workable options are:</p> <ol style="list-style-type: none"> Option 3: to reinstate the weir and fish pass to their original condition. Option 9: rough channel fish pass with reinstated weir. Option 10 (our suggestion): the Chester type weir and fish pass. <p>Option 3: To reinstate the weir and fish pass to its original condition is the only option that guarantees us historic water levels upstream on which the sporting clubs rely. This also maintains the built heritage of our town (the weir is a protected structure), which was planned and built around the river by John Anderson. Over the years, the river has generated huge revenue for the town of Fermoy through our clubs' river activities and river tourism.</p> <p>The 'Salmon Leap' and other passes along the Weir could easily be refurbished, rebuilt and restored to their former working best and be as efficient as they ever were when constructed over 200 years ago. In 2008, we went to Brussels to meet EU Commission and they confirmed to us that a simple repair/refurbishment would be acceptable to comply with their Directive. This was in complete contrast to the IFI and Department, at the time, who told us that they had No alternative but to remove the Weir or risk being fined millions of Euro by the EU!</p> <p>Option 9: The rough channel fish pass with reinstated weir may offer an acceptable compromise, but this proposal still lacks a lot of necessary detail and, in the absence of that detail, cannot be endorsed.</p> <p>After the rejection as unsuitable of the 2008 plan for a rock ramp, we understand that revised plans were drawn up in 2014, but as these have not been made available for scrutiny, they therefore cannot be accepted either unconditionally or in modified form.</p> <p>Before we can seriously consider Option 9, detailed engineering plans of all development works, including information on the consequences for water levels on the existing weir, salmon leap, slipways and also upstream, need to be made available to us in full so that our experts can inspect these proposals and comment on their viability and on intended and unintended consequences.</p> <p>It was clearly stated at our 'on-site' meeting, that the 'Mill Race' will have water flowing through it – How much in comparison to the proposed new heights and gaps proposed upstream? It was also mentioned that a solution must be found to keep the 'Salmon Leap' as a feature, but not as a working fish pass – This needs to be explained in Engineering terms.</p> <p>In order to ensure compliance with the Habitats Directive and SAC obligations, it is important that reliable data on the consequences of a rough channel for fish migration be gathered, something current plans do not factor in. A fish counter in the rough channel must be included in this plan to provide independently verifiable data of this kind. Furthermore, under option 9, fishery law would need to be amended to prevent angling/fishing on, in close proximity to or down-river from this fish pass. A fishery by-law will not be sufficient because the IFI can and will revoke such by-laws, as precedent shows.</p> <p>Option 10: The Chester type weir and fish pass proposal was recommended to us by our own retained experts, and, we believe, has been dismissed without due consideration. As this type of fish pass would appear to suit Fermoy weir and support all the</p>	3	Water Level	Chester Weir
100	18/12/2020	<p>Dear Sir/Madam</p> <p>In relation to the remedial works necessary for the Fermoy Weir, I would like to make the following submission.</p> <p>Apart from accommodating for the free movement of fish, the most important issue for mr would be that the level of the Blackwater, upriver from the bridge, be maintained to match the levels of the banks put in place by the OPW when they built the flood defences. Option 3 and option 9 would appear to accommodate this.</p> <p>An opportunity that should not be missed is the installation of turbines in the new arrangement to provide electricity for electirc car recharging stations in the mill carpark.</p> <p>Yours faithfully</p>	3	Water Level	Hydroelectric
19	01/12/2020	<p>As a regular leisure user of the blackwater, you want to ensure that the current low water levels are addressed Any modifications to the river flow should in no way make it more dangerous for leisure users who depend on the slow water flow near the weir for safety.</p> <p>The options outlined all involve changing the upstream water level except option 3 which is the full restoration of the protected weir structure.</p> <p>Lower water upstream will adversely affect all leisure activity which has been a part of life in fermoy for generations.</p> <p>The current emergency work in the river seems to have been required because the weir was damaged in the construction of the flood defence, if a protected structure was damaged by the OPW contractors originally are they not obliged to restore it to the original state at no cost to the taxpayer?</p>	3	Water Level	

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No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
20	02/12/2020	<p>As a regular leisure user of the blackwater, I want to ensure that the current low water levels are addressed, Any modifications to the river flow should in no way make it more dangerous for leisure users who depend on the slow water flow near the weir for safety.</p> <p>The options outlined all involve changing the upstream water level except option 3 which is the full restoration of the protected weir structure which is my preferred choice.</p> <p>Lower water upstream will adversely affect all leisure activity which has been a part of life in our town for generations.</p> <p>The current emergency work in the river seems to have been required because the weir was damaged in the construction of the flood defence.</p> <p>If a protected structure was damaged by the OPW contractors originally, are they not obliged to restore it to the original state at no cost to the taxpayer?</p>	3	Water Level	
21	02/12/2020	<p>My son is a regular rower on the blackwater and I want to ensure that the current low water levels are addressed.</p> <p>Any modifications to the river flow should in no way make it more dangerous for leisure users who depend on the slow water flow near the weir for safety. The options outlined all involve changing the upstream water level except option 3 which is the full restoration of the protected weir structure.</p> <p>Lower water upstream adversely affect all leisure activity which has been a part of life in Fermoy for generations. The current emergency work in the river seems to have been required because the weir was damaged in the construction of the flood defence, if a protected structure was damaged by the OPW contractors originally are they not obliged to restore it to the original state at no cost to the taxpayer?</p>	3	Water Level	
23	02/12/2020	<p>As a regular leisure user of the blackwater, I'm concerned about the current low water levels. I fear any modifications to the river flow may make it more dangerous for leisure users who depend on the slow water flow near the weir for safety.</p> <p>I've reviewed all of options and they all involve changing the upstream water level except option 3 which is the full restoration of the protected weir structure.</p> <p>Lower water upstream will adversely affect all leisure activity which has been a part of life in Fermoy for generations.</p> <p>The current emergency work in the river seems to have been required because the weir was damaged in the construction of the flood defence, if a protected structure was damaged by the OPW contractors originally are they not obliged to restore it to the original state at no cost to the taxpayer?</p>	3	Water Level	
29	03/12/2020	<p>As a regular leisure user of the blackwater, I would like to ensure the current low water levels are addressed</p> <p>Any modifications to the river flow should in no way make it more dangerous for leisure users who depend on the slow water flow near the weir for safety.</p> <p>The options outlined all involve changing the upstream water level except option 3 which is the full restoration of the protected weir structure.</p> <p>Lower water upstream will adversely affect all leisure activity which has been a part of life in Fermoy for generations.</p> <p>The current emergency work in the river seems to have been required because the weir was damaged in the construction of the flood defence, if a protected structure was damaged by the OPW contractors originally are they not obliged to restore it to the original state at no cost to the taxpayer?</p>	3	Water Level	

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No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
38	10/12/2020	<p>As a regular leisure of the Black Water, I want to ensure that the current low water levels are addressed. Any modifications to the river flow should in no way make it more dangerous for leisure users who depend on the slow water flow near the weir for safety. As a of Fermoy Rowing Club it is my responsibility to made sure the river is under Health and Safety Rules a safe place for our members to enjoy their favorite form of recreation. Our Club was established in 1882. So correct water levels are crucial to our sport that our members can enjoy in complete safety. Our Regatta is the top sporting event in The Rowing Calendar leading to the National Championships. The options outlined all involve changing the upstream water level except option 3 which is the full restoration of the protected Weir structure to its original design. Lower water upstream will affect all leisure activity which has been part of life in Fermoy for generations as is happening at present. The current emergency work in the river seems to have been required because the Weir was severely damaged in the construction of the flood defence, if a protected structure was damaged by the O.P.W. Contractors originally are they not obliged to restore it to the original state at no cost to Tax Payer? Who will be responsible for clearing the trees from the Weir every winter after high water? The silt needs to be cleared from the lower part of the river every 2 years who will be responsible for that? At the moment that is the greatest problem for fish to get up over the Weir.</p>	3	Water Level	
64	17/12/2020	<p>To whom it may concern,</p> <p>Option 3 is be my preferred option. I believe that the weir should be re-instated to the original structure and to the height levels of 2015. Option 3 also seems to be he most cost effective and as a regular river user for the past 40 years, it would re-instate the river to its former glory. The weir has been a structure in use for 200 years and it a protected structure. For the future of clubs that use the Blackwater, option 3 is the only option.</p> <p>Option 9 seems very intrusive and would have massive effects to the water level in the river. Proposed measurements for Option 9 are not very realistic and what is being suggested would make the fish pass opening too wide and the flow of the river much too fast. It would also drag boats down river and that would not be safe for members of Fermoy Rowing Club and other river users.</p> <p>Kind regards</p>	3	Water Level	

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65	17/12/2020	<p>To whom it may concern,</p> <p>Option 3 is be my preferred option. I believe that the weir should be re-instated to the original structure and to the height levels of 2015. Option 3 also seems to be the most cost effective and as a regular river user for the past 20 years, it would re-instate the river to its former glory. The weir has been a structure in use for 200 years and is a protected structure. For the future of clubs that use the Blackwater, option 3 is the only option. Option 9 seems very intrusive and would have massive effects to the water level in the river. Proposed measurements for Option 9 are not very realistic and what is being suggested would make the fish pass opening too wide and the flow of the river much too fast. It would also drag boats down river and that would not be safe for members of Fermoy Rowing Club and other river users.</p>	3	Water Level	
66	17/12/2020	<p>To whom it may concern,</p> <p>Option 3 is be my preferred option. I believe that the weir should be re-instated to the original structure and to the height levels of 2015. Option 3 also seems to be the most cost effective and as a regular river user for the past 40 years, it would re-instate the river to its former glory. The weir has been a structure in use for 200 years and it is a protected structure. For the future of clubs that use the Blackwater, option 3 is the only option. Option 9 seems very intrusive and would have massive effects to the water level in the river. Proposed measurements for Option 9 are not very realistic and what is being suggested would make the fish pass opening too wide and the flow of the river much too fast. It would also drag boats down river and that would not be safe for members of Fermoy Rowing Club and other river users.</p>	3	Water Level	
35	04/12/2020	<p>As a regular leisure user of the blackwater, I & my family wish to ensure that the current low water levels are addressed Any modifications to the river flow should in no way make it more dangerous for leisure users who depend on the slow water flow near the weir for safety.</p> <p>The options outlined all involve changing the upstream water level except option 3 which is the full restoration of the protected weir structure.</p> <p>Lower water upstream will adversely affect all leisure activity which has been a part of life in Fermoy for generations.</p> <p>The current emergency work in the river seems to have been required because the weir was damaged in the construction of the flood defences, if a protected structure was damaged by the OPW contractors originally are they not obliged to restore it to the original state at no cost to the taxpayer?</p>	3	Water Level	

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No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
6	14/11/2020	<p>Before the collapse of the portions of the mill race weir and mill island, rubbish and debris got stuck between the end of the weir and the new wall leading to the pump house. Would it be possible to extend the Mill race weir all the way down to the new wall with the two flood gates?.</p> <p>With regard to the options given for the refurbishment of the weir, i would like to see option 3 being chosen.</p> <p>And would it possible to widen, and extend the lenght of the current fish pass with more steps?.</p>	3		
55	16/12/2020	<p>Restore the weir to its original condition. The fish have managed to navigate it for the last 100 years</p>	3		
68	17/12/2020	<p>What exactly do the OPW, inland fisheries and Cork county council have against our rivers?</p> <p>Reinstate the weir to it's previous, protected status and please stop vandalising our waterways,</p>	3		
71	17/12/2020	<p>3. Remediate the existing fish pass</p> <p>This option offers the best solution as</p> <ul style="list-style-type: none"> • The structure must be preserved • The development of tourism in the town will be enhanced by the structure • The maintenance of upriver levels are an important amenity for future generations • The flood defences were designed and constructed around the existing structure • The evolution and ever changing development of the river will continue regardless of SAC's 	3		

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75	17/12/2020	To me it is totally insane to change the the weir. It is a protected construction and a BIG part of Fermoy's history. Get it repaired in it's original shape and form.	3		
98	18/12/2020	<p>Option 3 is my preferred option, but not acceptable to IFI Option 10 [Chester Weir style] is my next preferred option and one which I believe warrants another look. Option 9 is being pushed by IFI and CCC, so I have to ask the following questions surrounding Option 9.</p> <ol style="list-style-type: none"> 1. The Safety of water users must be Number One, how can this be guaranteed, with a huge inlet to the new fish pass being so big on the Northern Bank opposite the Rowing Club Slipways? 2. The Weir is a Listed and Protected, Historic Structure and it's refurbishment must restore water levels and flows to pre 2015 levels. The Rowing Club is currently reduced to 800 metres of two boat rowing and has been unable to run a regatta for the past two years, thus starving the club of funds and the town of a major crowd pulling event. The club has lost 70% of it's rowing members to other rowing clubs in Cork and some have given up rowing totally. 3. How much water will flow down the mill Stream - which is currently blocked? 4. Who will maintain the Mill Stream 5. Who will maintain the Weir (Trees normally left there for months) 6. Who will remove the islands of stone that build up over the flood season. 7. Who will maintain the inlet to the new fish pass. 8. How will the inlet water flow be controlled – We have heard figures of 12.5% to 30% - That's a huge variance. 9. What will be the height and width of the inlet? 50 Metres is outrageous. 10. What will be put in place to prevent water being stagnated under the Southern eyes of the Bridge 11. If the Old Salmon Leap is to be restored, then a system will have to designed to keep the feature, 12. I support the feature being kept, but how, without attracting the Salmon? 13. All Salmon fishing must be banned from the Rowing Club to the Sub Aqua Club 14. IFI / OPW currently accept that Salmon are getting up the Salmon Leap (recent report on Mill Island Protection works), that being the case, why can we not start with the weir refurbishment first and then water levels will rise and the Rowing club can try and get back to some normality in 2021/22 <p>I am cautiously accepting Option 9, having met the Engineers, on site, but all the above 1-12 need to be answered clearly, before planning papers are finalised.</p>	3		
103	18/12/2020	Go with option 3	3		
69	17/12/2020	<p>Weir removal is the best option. It provides connectivity fir all fish species and complies with Fisheries legislation and Water Framework Directive.</p> <p>The other options will maintain a deep channel upstream impacting on water quality.</p> <p>This is one of the best salmon rivers in Europe and with salmon as an iconic species which are currently in trouble there is no other option than weir removal.</p> <p>Weir removal is also the least cost option which provides a quick fix and brings the river back to a natural flow regime.</p>	4		

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77	17/12/2020	To whom it concerns, its clear that option 4 (complete removal of the weir) is the most beneficial choice to make. Not only will it allow unrestricted access up river to fish it will also drastically drop the rivers height. Had this been done several years ago it would have removed any necessity for fermoy's flood defenses. The loss of a rowing club is a small price to pay in exchange. Regards	4		
31	03/12/2020	Having reviewed all the proposals on the website, I would prefer to see the option 5 pursued as it satisfies many / most of the objectives and doesn't interfere with the upstream water levels or the levels of water above the mill race weir wall. This level in particular I would like to see maintained as the recent flood defence wall works outside the Garda station leave an unsightly vertical height from the water level to the top of the wall. The mill race (although no longer used) is a beautiful feature, around which the south east bank of the river has developed. This option leaves the possibility of the mill race to be restored or at least to keep a fresh fed wetland in the race channel (between mill island and Market Square) which is itself becoming a rich habitat. I understand the protected structure issue may be a factor with this option but I think it is the least invasive issue of all to breach. It may be outside the scope of this project but the proposal of a pedestrian bridge from north-south (Rathealy Road to the Mill Island) should be considered in any works that may be undertaken in the weir and river works. This bridge will happen at some stage and better to future-design it in (and maximise the ease of its' implementation) rather than have work done / undone at a later date.	5	Water Level	
9	20/11/2020	Option 7 as first preference followed by option 3. In my opinion, restoring what was a beautiful weir and mill pond to Fermoy is crucial both in terms of tourism and of providing amenities for locals. The original fish pass may not have been perfectly located but it was part of the rivers ecology for 200 years. I would hope that the old fish pass could be retained as it's fascinating. The near natural bypass appeals as it would improve fish passage without reducing water levels or significantly altering the river.	7	Tourism	

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70	17/12/2020	<p>To whom it may concern,</p> <p>The weir in Fermoy supports critical local amenities and creates a beautiful view in the heart of the town. It is vital that preservation work is carried out on the weir which supports the ecology of the river - particularly in light of its status as a Special Area of Conservation - while ensuring that the river can be enjoyed by the people of Fermoy and the many visitors it attracts.</p> <p>Having reviewed the available options, I would like to express my support for either option 7 or option 9. On balance, these options seem to best satisfy the multiple demands that any preservation works must meet. Whichever of these options is implemented, it is vital that fish are able to pass upstream with ease, that upstream water levels are maintained to support the various activities that are enjoyed on the river and that the visual impact of the works does not deter enjoyment of the river.</p> <p>The River Blackwater is a beautiful and ecologically significant place. The annual salmon migration is a special thing. Under either option 7 or 9, there is a unique opportunity to allow people to engage with this migration by adding observation platforms near the channel. This would ensure that local people are invested in the process of environmental protection. Given the increased focus of on environmental protections and sustainability, it is important that public works are carried out in such a way as to show that environmental protection does not come at the cost of people. People in Fermoy love the river - giving them an opportunity to further enjoy the wildlife that comes with that is beneficial to all.</p> <p>The mistakes of the rock pass constructed in Bandon should be avoided. That project saw criticism from local people, environmental groups and local clubs. It failed to account for the needs and concerns of those groups. As a result, the constructed Pass is visually displeasing and failed to provide the environmental protections it was required to do. The Council has a golden opportunity in Fermoy to show how public projects can effectively marry environmental concerns with the desires of local people, setting a standard for how these works should be carried out in future.</p> <p>Environmental projects are most successful when there is local buy-in and support. Ensuring people can continue to use and enjoy the river is beneficial for the local economy, attracting fishermen, walkers and sportspeople. More importantly, it is beneficial for the quality of life of people in Fermoy. Rowing and diving, talking walks up Barnane or getting a spin in the wheelie boat, kayaking downstream or simply sitting on a bench by the river quietly watching the otters are essential aspects of life in Fermoy. Any work carried out on the river must protect the river for future use.</p> <p>Thank you for considering this submission.</p>	7	Visual Impact	
32	03/12/2020	<p>I welcome this project and look forward to its completion. Based on the information provided Options 9 would seem the most appropriate with particular reference to enabling fish to pass while maintaining water levels above the weir to accommodate traditional recreational activities such as rowing and swimming.</p> <p>I think that every effort should be made when repairing the existing weir structure and adding new components that the materials used would blend in with the natural environment and the existing 19 century structure i.e., no concrete should be visible. The design should also incorporate suitable planting and landscaping to enhance the overall visual impact of the structure.</p> <p>Fermoy is one of the few towns in Ireland, indeed Europe where the annual migration of Atlantic Salmon can be experienced. Suitable viewing platforms overlooking the new fish bypass channel should be provided to enable people to fully enjoy this natural phenomenon. Indeed, it could become a tourist/visitor attraction for the town.</p> <p>With the development of the Blackwater Blueway it is also important that provision is made for the safe passage of canoes and kayaks.</p> <p>Finally, I would ask that consideration should be made to incorporating a hydroelectric powder unit into the weir structure. Archimedes Screw systems have been built on other rivers and are well suited to situations where limited water flow is available. This type of system also facilitates the safe passage of fish downstream. Such a unit would provided green renewable electricity that would help reduce the carbon foot print of Fermoy and could also prove to be an item of interest for the local community and tourists to visit.</p>	9	Amenity use	Kayaking

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41	16/12/2020	<p>has three options that may be acceptable to us and our answer to all other options 1 ,2, 4, 5, 6, 7 & 8 in this consultation process is NO.</p> <ol style="list-style-type: none"> Option 3 to reinstate the weir and fish pass to original condition. Option 9 rough channel fish pass with reinstated weir. Option 10 our suggestion the Chester type weir and fish pass. <p>Fermoy weir and fish pass is a protected structure and as well as this been reinstated we also want to see water levels returned and maintained to historic levels upstream of Fermoy weir. We are too well aware of our obligations necessary for the migration of Salmon, eels etc and the obligations there under the Habitats Directive and Special Areas of Conservation (SAC). We also understand under SAC's how Human beings can co-exist with Wildlife, Fish and Fauna. This is why it is imperative to us that our clubs and members of all disciplines, angling, rowing, swimming, wheelie boat etc can use this amenity once again as in the past.</p> <p>Option 3; To reinstate the weir and fish pass to its original condition is the only option that guarantees us historic water levels upstream and this is important to the clubs that rely on the river upstream. This also maintains our town and its historic listed and protected structure of the weir, our town was built around the river and the weir by John Anderson and over the years the river has generated huge revenue from our clubs activities in relation to our river tourism from rowing, angling etc for the town of Fermoy.</p> <p>Option 9; The rough channel fish pass add on with reinstated weir this also maintains our town and its historic listed and protected structure of the weir, this appears to be a good compromise but at the moment this lacks a lot of detail that is required in order for us to support.</p> <p>As we have seen in 2008, when a rock ramp was proposed it was suggested then that water levels would drop 4 inches up river but in actual fact when we got our own engineers to check and got surveys done. They found that the river would have dropped 18 inches which was unacceptable. We understand that new plans were drawn up in 2014 and they were not made public despite us asking. We were told this at a public meeting with IFI in relation to proposals on Careysville Weir; that they could be viewed at a later date. This never happened, so NOTHING WAS AGREED!</p> <p>We note that when the old fish pass is reinstated that a cap may be put at the head of this to prevent water going through this fish pass. When water levels are high and able to spill over the weir Salmon and other fish will try and get up this fish pass but will be met with a wall/cap at the top of the pass preventing them get upstream. This needs to be addressed or not capped.</p> <p>Before option 9 will be fully considered by us and before this would go for planning permission to An Bord Pleanála, we need to see the full detailed Engineers technical plans of all development works for the reinstatement on the existing weir and fish pass as well as the new rough channel, so that our experts can inspect these plans in full.</p> <p>We also want to see fishery law designed to prevent angling/fishing or other activities in the rough channel pass or in close proximity to the pass and down river from the base of this fish pass for 100mts, and no one should be able to cast upriver into this area. A fishery by-law will not be enough for this as we have seen in the past where IFI can and will revoke by-laws, so we will need something more substantial in this regard.</p> <p>A fish counter has not been mentioned for the rough channel either and its important to have this put in considering the SAC obligations, if a fish pass is going in like this its important to back up how well this is working for all migrating fish returning or going to sea.</p> <p>We cannot understand the logic behind how wide this new rough channel is at 28mts and the width at both ends up to 50mts when something half as wide or less would suffice, this makes no sense to us. We only recently learnt that IFI share data with Hydro Electric systems when developing all these type split river fish passes in Ireland. If this is true this is unbelievable when it comes to fish welfare and fish habitat, why is this allowed on a SAC river when there is so much concern about fish migration, habitat and the environment?</p> <p>Option 10; the Chester type weir and fish pass, this is our option and which was advised to us by our own experts, this is been dismissed without serious consideration as we believe this type of fish pass may suit Fermoy weir, a Chester type weir and fish could be adapted to work in Fermoy, we would hope that this proposal is not thrown out the window without giving it serious consideration. We believe this could have minimum impact and would work well for fish migration, the environment and our clubs and amenities on the river.</p> <p>A fishery 1km downriver from the town we are now witnessing since the breach on the weir the increased water velocity which is causing a lot more bank erosion and over the last 12 months we have seen a lot more trees and their roots falling in the river as the banks are been undercut with the increased speed of the river. If this continues at this rate we are going to have huge problems with the banks of the river downstream so how and who will address this. We can also see upstream that the banks of the river are collapsing because this time we believe they have become exposed because the water levels have dropped so much. We have seen environmental report for emergency works at the weir and we haven't seen this type of damage been mentioned in this report!</p> <p><i>It's very important that the weir and fish pass development is completed as soon as possible which a lot of clubs rely on so much for their activities and we as anglers need this done so we can see the unhampered migration of our salmon and other fish</i></p>	9	Water Level	Chester Weir
82	17/12/2020	<p>A Chara</p> <p>As ,im very concerned at the proposals for Fermoy Weir remediation as outlined in the recent plans,which were put on public display recently .</p> <p>Since the Flood Defences were put in place I have seen a noted deterioration of the Weir ,a protected structure , which has led to its enevitable collapse Why the Weir did not have an officer of the Local Authority present to ensure its protection during the build phase im at a loss to understand The buildings all around the Flood Defences had monitors fixed on them to measure any cracking or damage but the closest structure -i.e the Weir was left to disintegrate . The piling works alone would have seriously shook any structure , not least a structure built with mortar over 150 years ago and directly connected by water to those works</p> <p>My main concern , and outcomes that needs to happen after the Weir remediation,is a restoration of our beautiful town feature ,which has graced our vista since 1865 , restoration of pre 2015 water levels upriver to sustain boating and recreation on the river ,and safe and efficient passage for migrating fish upriver to spawn Option 3 is my preferred option to accomplish these aims However as Inland Fisheries Ireland [IFI] have an affective veto on works [unjustly in my opinion] it looks increasingly like Option 9 is the preferred Option To that end it is encumbent on the Weir Remediation Engineers to provide a sufficient Weir height with an allowance for the flow down the proposed new IFI fish pass to occur This will prove to be a difficult calculation and vital to "hold" water above the weir to meet the stated aim of restoring the water levels on the upper stretch up Barnane to pre 2015 levels When the Flood Defences were completed almost immediately holes started appearing in the weir,and the level of water dropped up Barnane .This necessitated the Fermoy Rowing Club having to purchase large pontoons in order to be able to launch boats safely .this outlay was in excess of 10,000 eu .</p> <p>Because of the pandemic can not sustain any further expense such as that</p> <p>The figures quoted for OD levels on the Options 1-9 were not in any way accurate and were not sufficient to make an engineering judgement .Also the "outtake" dimentions for the proposed Fish pass have been quoted as 50 m ,30 m and 20 m . Again not accurate enough to make a judgement at this time Another issue is that the "outtake " for the new Fish pass will be directly across from the Rowing Club slips and will lead to a "drag " on boats turning in that area</p> <p>A barrier may have to be incorporated in the mouth of the fish pass to prevent any disabled boats from being dragged down the Fish pass [possibly a rock ramp at the mouth]</p> <p>as a designated stakeholder reserve the right to verify the engineering figures when they are presented in order that we can verify that the build will accomplish its stated aims.</p> <p>has been fully empowered to negotiate and lobby on behalf of and as a lead in together with the other interested clubs and associations .</p> <p>I await the result of the Consultation phase and the Option that is chosen , but i reserve the right as of a stakeholder organisation to endorse the final plans [which are expected to be presented once the engineering drawings are available] Rgds etc</p>	9	Water Level	

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104	18/12/2020	<p>Dear Sir/Madam,</p> <p>Thank you to Cork County Council and TJ O'Connor & Associates for providing the public with an opportunity to participate in the options selection for the Fermoy Weir Remediation and Fish Bypass project. As someone who works in the planning process, I know that this has been an exceptionally challenging year in which to run public consultations, so the accessibility of information and the opportunity to provide feedback are very much appreciated.</p> <p>Notwithstanding the considerable time that it has taken to reach this point, credit due to Cork County Council and its consultants for the fair hearing which has been given to the various ecological, built heritage and amenity concerns relating to the weir.</p> <p>As a , a native of Fermoy and an open water swimmer, it has been disheartening over the last number of years to see the disharmony caused by a lack of mutual understanding between stakeholders on all sides of the debate surrounding the weir. For this reason, I am particularly glad to see that the project objectives and assessment of the various options have taken the requirements of all interested parties seriously, and sought to balance these in an objective manner.</p> <p>I would like to reiterate the point that the maintenance of the upstream water level at the level prior to significant collapse of the weir is essential for the continuation of activities by a number of groups, not least Fermoy Rowing Club, which, along with its (until recently) annual sprint regatta, is an integral part of Fermoy's heritage. I would like to add to that that the upstream water level is also of great importance to Blackwater Triathlon Club and many open water and marathon swimmers who train in the river. As noted in the Options Report, any change in the hydrological regime has the potential to affect Annex I alluvial woodlands upstream or downstream of the weir and this must be considered in the Appropriate Assessment Screening Report or Natura Impact Statement.</p> <p>The Options Report implies that Option 9 (rough channel-pool bypass) strikes the best balance in terms of substantially meeting all of the project objectives and also minimising construction-stage impacts. I am inclined to agree with this assessment. If executed properly, I believe that this option presents an excellent opportunity to preserve the heritage and amenity value of the weir, while also greatly improving the situation with regards to fish passage and the integrity of the Blackwater River (Cork/Waterford) SAC. I would like to emphasise that any solution must facilitate passage of not only the species for which the SAC is selected, but also European Eel, which is listed as Critically Endangered in Ireland and globally. This species is all too often overlooked and not provided for in fish passage projects/mitigation measures.</p> <p>In addition to the maintenance of upstream water levels for river users, in terms of visual amenity I believe that in an ideal scenario there would be water flowing over most of the weir at all times. However, I appreciate that maintaining such conditions for most of the year while also ensuring sufficient flow through the fish pass will pose a challenge, particularly in the context of climate change and the low summer flows which we have seen in recent years.</p> <p>The Options Report also touches on the question of landscape. On that point, I would like to highlight that the location in question has seen the loss of at least three very mature trees (as far as I can recall, the tree lost from the Triangle Field as a result of the Flood Relief Scheme was an oak and the two lost from the river bank more recently were copper beech). In my opinion, the loss of these trees has had a significant detrimental effect on the visual amenity of the town. We cannot afford to lose any more of these trees. Trees of great age, size and local distinctiveness should not, as often happens, be replaced with immature trees of another character altogether. Any trees which have to be moved as part of the weir remediation/fish bypass project must be reused as part of the landscape proposals, which should also include appropriate riparian planting to benefit fish, freshwater invertebrates, otters and birds.</p> <p>Thanks again to Cork County Council and TJ O'Connor & Associates for the opportunity to comment at this early stage. I look forward to following this project through to its completion.</p> <p>Kind regards,</p>	9	Water Level	
7	16/11/2020	<p>I have looked at all 9 options for the weir.</p> <p>After careful study of the options I believe that option 9 would be the one to full-fill all the requirements for the weir, bypass etc. My second option would be option 7.</p> <p>Because you have not included costs for these options I can not be sure if any of these are realistic.</p> <p>.</p>	9		
76	17/12/2020	<p>Hi, I believe that it is essential to reconstruct the weir using modern materials i.e. Mitigation by Record, i.e. record and replace with new. In addition regarding the fish pass I believe that the two best options are number 7 Construct a near natural bypass channel, or 9 Construct a rough channel pool bypass. I consider that the latter option number nine is the optimal choice.</p>	9		

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Summary of Responses

No.	Date Received	Submission Content	Preference	Issues Raised	Alternative Proposals
79	17/12/2020	<p>This submission is in full support of the lengthy submission of Fermoy Rowing Club and the Save the Weir Group The most important thing regardless of whatever decision is forced upon the Town and River Users is that the water levels are re-instated to pre damage to the weir. That any works do not put any river user in life changing risk due to change of currents etc.</p> <p>That the iconic image of Fermoy Weir is maintained. As noted by Fermoy Forum That the existing weir isn't turned into a feature where debris and rubbish accumulates water need to be constantly flowing at lower volumes.</p> <p>Will the Mill Race has a normal feed of water That NO manual damming system is required to maintain water levels – INLAND FISHERIES IRELAND have noted that the opening of the new bypass could be manually closed to raise the water for a regatta</p> <p>THIS IS NOT ACCEPTABLE – who would be responsible OPW INLAND FISHERIES IRELAND CCC if this was the case – this is not feasible in anyway Why had INLAND FISHERIES IRELAND withheld the drawings from day one, is this in the public interest of stakeholders NO , by withholding these drawings it doesn't allow any stakeholder get professional advice and direction.</p> <p>Since communication have being going on with TJOC Consultants measurements and heights have changed, why does the consulting agency not know these answers The INLAND FISHERIES IRELAND have being misinforming the public is this correct practice from a government department.</p> <p>The 'Chester type weir' has not been looked at closely or seriously by the INLAND FISHERIES IRELAND. There are advisors to the campaign who cannot comprehend why this cannot be addressed.</p> <p>Why are INLAND FISHERIES IRELAND closed minded in putting in plans which were never agreed or seen by any stakeholder, this is a government department bullying their own agenda which was very blatant by the head of the INLAND FISHERIES IRELAND at a meeting held in Fermoy.</p> <p>Will the INLAND FISHERIES IRELAND be forced to take the following into serious consideration; the Chester Type Weir would do this Recent public workshops carried out by Fermoy Forum clearly identinland Fisheries Irelanded the River Blackwater as our town's greatest strength and opportunity. Key elements of this are the rivers beauty, its fishing potential as well as the many amenities it supports such as rowing, boating, and swimming. The deterioration of the weir has eroded each one of these and posed a huge threat to tourism and growth of Fermoy town. It is therefore imperative that the solutions proposed are evaluated keeping these key elements in mind.</p> <p>HAS THIS PUBLIC CONSULTATION BEEN CARRIED OUT 100 % WITHIN THE GUIDELINES LAID OUT BY GOVERNMENT PUBLIC CONSULTATION PRINCIPLES & GUIDANCE, Has the department of public expenditure and reform being made aware that there could be less cost with the same results if the Chester Weir was investigated. If they have not will they be update with facts and not lies and misleading information</p> <p>The owners of the weir Cork County Council who accept that it is needed to be repaired to its former glory – why are they letting INLAND FISHERIES IRELAND railroad them. Or are the following statements lip service Mayor of the County of Cork, Cllr noted:</p> <p>The weir is a centerpiece for the river, the community, the scenery and the biodiversity of Fermoy. The decisions made now build upon works that began 200 years ago and will have long lasting impacts into the future. It is vital that the people of Fermoy have their say in a development that will have a meaningful and enduring impact on their town.</p> <p>Cork County Council, said:</p> <p>Cork County Council is committed to working alongside the communities we serve to achieve our shared economic and environmental objectives. This Public Participation process will ensure that the community has the opportunity to contribute to this signInland Fisheries Irelandcant remediation and conservation project.</p> <p>Will all queries be answered or is this a box ticking exercise regardless of Covid Climate - the manner and process is questionable and may be outside the practice guidelines of its principles</p>	10	Water Level	Chester Weir
3	07/11/2020	<p>Need to reinstate the weir and maintain up Stream water levels.</p> <p>Please consider the cheater weir fish jump.</p> <p>Regards</p>	10	Water Level	Chester Weir

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74	17/12/2020	<p>Over many years, whilst in it's magnificent glory, the weir has been a major Focal Point for both Townspeople and Tourists alike ... so many people admiring it's wonderful cascading waters – viewing it from the bridge and, seasonally, the fish as they progress upriver via the various fish passes.</p> <p>Of course our much loved Blackwater has so many other vital elements that are vital not only to the ongoing Tourism prospects of our town, but so vital also to the many social and sporting activities in the area – including all aspects of Fishing (Coarse, Trout and Salmon), Rowing, Wheelie Boat, Swimming, Sub Aqua, Triathlon, Kayaking, Walking Trails and many other aspects so important to the continuing wellbeing and development of our town. All these activities are dependent on the river being restored to it's correct level – the level at which it has always been over so many years.</p> <p>As it is a fact that Fermoy Weir is a Protected Structure and must be restored to it's former status, may I suggest that all objectives could be most efficiently and effectually achieved by restoring the Weir to it's former glory and incorporating an aspect of the “ Chester Weir Fish Jump “ at the lower end of the Weir - just in front of the Flood Gates. This would satisfy all aspects necessary for the successful restoration of our important Weir and would also allow water to flow through the Mill Race, which is also very important and is part of the Protection Order.</p> <p>(The Mill Race is currently in an absolutely awful condition and urgently needs to have a flow of water running through it) Bottom Line - whatever plan is chosen - must result in the following</p> <ol style="list-style-type: none"> 1 That the water levels on the upper stretch of river are restored to the previous levels for all sports and users 2 That the weir and Salmon Leap/Fish Pass is restored to it glory with water flowing and not just a feature to gather Debris and rubbish 3 That any works completed should be safe to every river user today tomorrow and next generations. <p>These are our thoughts on the situation. It is an issue that is very close to our hearts - having lived close to the weir for most of our lives - both personally and with the future of Fermoy very much on our minds.</p> <p>Yours sincerely</p>	10	Water Level	
1	02/11/2020	<p>On a personal basis, I have been in business in Pearse Square, Fermoy for over 55 years, having actually lived in the Square for about 30 of those years. I feel, therefore, that I am well qualified to express factually focused and well-informed comments on our very important and well admired weir.</p> <p>Over many years, whilst in it's magnificent glory, the weir has been a major Focal Point for both Townspeople and Tourists alike ... so many people admiring it's wonderful cascading waters – viewing it from the bridge and, seasonally, the fish as they progress upriver via the various fish passes.</p> <p>Of course our much loved Blackwater has so many other vital elements that are vital not only to the ongoing Tourism prospects of our town, but so vital also to the many social and sporting activities in the area – including all aspects of Fishing (Coarse, Trout and Salmon), Rowing, Wheelie Boat, Swimming, Sub Aqua, Triathlon, Kayaking, Walking Trails and many other aspects so important to the continuing wellbeing and development of our town. All these activities are dependent on the river being restored to it's correct level – the level at which it has always been over so many years.</p> <p>As it is a fact that Fermoy Weir is a Protected Structure and must be restored to it's former status, may I suggest that all objectives could be most efficiently and effectually achieved by restoring the Weir to it's former glory and incorporating an aspect of the “ Chester Weir Fish Jump “ at the lower end of the Weir - just in front of the Flood Gates. This would satisfy all aspects necessary for the successful restoration of our important Weir and would also allow water to flow through the Mill Race, which is also very important and is part of the Protection Order. (The Mill Race is currently in an absolutely awful condition and urgently needs to have a flow of water running through it)</p> <p>I attach some photos of the above mentioned “ Chester Weir and Fish Jump “. In the Photo showing the full Chester Weir, the Fish Pass is upriver. I would propose the Fish Pass would be most efficient at the lower end of the Weir in Fermoy. The second photo is a close up of the proposed Chester Weir Fish Pass.</p> <p>These are my thoughts on the situation. It is an issue that is very close to my heart, both personally and with the future of Fermoy very much on my mind.</p>	10		Chester Weir

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15	26/11/2020	I appreciate this is a complex issue. I feel none of the nine presented options fully solve the problems. I would suggest a tenth option..... the "Chester Weir" solution. I do not understand why this option was not included in your current menu of solutions.....I would appreciate your response to this question. Kind Regards.	10		Chester Weir

APPENDIX B

DAU Letter of 28/02/2020 with Observations and Recommendations



Your Ref: 19011-TJOC-ZZ-XX-LT-C-3000
Our Ref: **G Pre00324/2019**
(Please quote in all related correspondence)

28/02/2020

Suite D,
Penrose House,
Penrose Quay,
CorkVia
email

Re: Fermoy Weir Remediation and Fish Bypass Project.

A chara

On behalf of the Department of Culture, Heritage and the Gaeltacht, I refer to correspondence received in connection with the above.

Outlined below are heritage-related observations/recommendations of the Department under the stated heading(s).

Archaeology

It is noted that it is intended to engage the services of an underwater archaeologist to carry out the necessary archaeological assessment for the proposed works. This is to be welcomed. The Underwater Archaeological Impact Assessment (UAIA) shall contain the following:

- A detailed underwater archaeological assessment of the weir structure, riverbed, river bank and bridge structure, should the latter also be included in the footprint of the proposed works. The UAIA shall also include assessing the potential impact on underwater cultural heritage of any proposed access and egress routes for plant and machinery into the river, including haul roads, etc.
- The assessment shall comprise visual assessment, including photographic survey of the structures and riverbed and shall be accompanied by a hand held metal detection survey.
- A measured, scaled and geo-referenced drawn and photogrammetric survey of the weir as it currently presents, accompanied by a detailed descriptive record.
- It shall be noted that timbers were identified in the riverbed previously in the proximity of the existing bridge that may form part of earlier structures, either for an earlier bridge or earlier weir or other, previously unidentified feature. The



location of the timbers shall be confirmed and if within the footprint of proposed works or any associated works (e.g. for vehicular access to river, etc.) then shall form part of the UAIA assessment.

- A detailed desktop assessment that consults with all known and relevant sources shall inform the UAIA from the outset and shall seek to identify potential for previously unknown underwater cultural heritage to be present in the riverbed so as to enable avoidance of any impact on heritage.
- The desktop study shall consult results of previous UAIAs and other relevant archaeological assessments and shall also include accessing the Topographical files in the National Museum of Ireland and also local sources to include artefactual finds from the River Blackwater in that area. Several finds have been recovered in the past by divers that indicated the potential for more material culture to be present in the underwater environment within the footprint of the proposed works.
- A detailed impact statement shall be included in the UAIA, addressing all propose options for the remediation and repair project, and shall put forward informed recommendations addressing each option to propose avoidance, as the preferred option, or archaeological mitigation of unavoidable impacts on the underwater cultural heritage.

The engaged underwater archaeologist shall comply with the following:

- Be suitably qualified and suitably experienced (have a track record in the assessment and recording of weir structures or similar structures).
- Shall submit a detailed method statement to accompany the applications for Dive Survey Licence and Detection Device Licences.
- Shall comply with all Health and Safety Authority Regulations pertaining to diving at work.

Nature Conservation

The proposed works are within and immediately adjacent to the following European site: the Blackwater River (Cork/Waterford) candidate Special Area of Conservation (cSAC) (2170). Conservation objectives for this site is available at <https://www.npws.ie/protected-sites/sac/002170> and apply amongst others to the habitat type alluvial woodland and to the freshwater species salmon, sea lamprey, river lamprey, brook lamprey, Twaité shad, otter and white-clawed crayfish.



It is a conservation objective for both sea lamprey and Twaite shad to *restore* their favourable conservation condition in the Munster Blackwater River, by making more than 75% of the main channel length of the river accessible to these species from the Blackwater Estuary¹. This means that repair of the Fermoy weir can only be permitted where the fish pass will allow upstream access to both Twaite shad and lamprey. The design requirements for shad will be more demanding in terms of design, because, unlike salmonids, they are unable to swim against any plunging water, and they swim in shoals rather than individually. Also the flow velocities will need to avoid circumstances where shad will swim back down the fish-pass and they can abandon an unsuitable fish-pass after entry². Velocity barriers of 4.15 m/s for 6.1m or 4.5 m/s for 5m have been cited as passable by American shad³. Larnier and Travade (2002)⁴ provide design recommendations for shad fish passways and large numbers of shad have successfully passed designs used in Bergerac (France)⁵ for instance, but it is recommended to obtain site-specific advice from IFI in relation to the efficacy of the proposed fish-pass for Twaite shad and other fish species.

In order to fully assess alternatives, it is recommended that the impacts four other options on the above European site are also assessed in the NIS and ecological impact assessment, in addition to those proposed:

- 'Do-nothing' option.
- Complete or partial permanent weir removal.
- Stabilization of current breach.
- Construction of the fish pass in the breached weir area of the river channel.

Predictions of the effectiveness of fish pass options for each species based on monitoring evidence from other weir fish passes should be included.

¹ NPWS (2012) *Conservation objectives: Blackwater River (Cork/Waterford) SAC 002170*. Version 1.0. https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002170.pdf

² Castros-Santos, T. (2012) Adaptive fishway design: a framework and rationale for effective evaluations. Pp. 76-90. In: Bundesanstalt für Gewässerkunde (Hrsg.): *Monitoring, Funktionskontrollen und Qualitätssicherung an Fischaufstiegsanlagen. 2. Kolloquium zur Herstellung der ökologischen Durchgängigkeit der Bundeswasserstraßen am 07./08. Juni 2011 in Koblenz*. – Veranstaltungen 7/2012, Koblenz, August 2012.

³ Haro, A. and Castro-Santos, T. (2012) Passage of American shad: Paradigms and realities. *Marine and coastal fisheries: Dynamics, management and ecosystem science* **4**: 252-261.

⁴ Larnier, M. and Travade, F. (2002) The design of fishways for shad. *Bulletin Français de la Pêche et de la Pisciculture* **364** (Supplement): 135-146.

⁵ Travade, F. et al. (1998) Feedback on four fishpass instalations recently built on two rivers in southwest France. Pp. 146-170. ICES Annual Science Conference 1996.



It is recommended that the following conservation issues and questions are addressed in the Natura Impact Statement (NIS):

- The predicted velocity of water flow in the fish pass during lamprey and shad upstream migration, based on seasonal data.
- The predicted efficacy of the fish-pass design to allow upstream access to Twaite shad, lamprey species and eel (as an important prey of otter).
- The exact restored height of the proposed weir compared to that of the original (damaged) weir.
- Any OPW amendments to the works.
- In-combination assessment with changes to Condulane and other weirs in the cSAC, upstream and downstream.
- The need for regular downstream gravel removal as part of weir maintenance.
- Sediment deposition upstream of the weir.
- Effects on invasive species, such as dace.
- Potential for increased heron, cormorant or mink predation at the fish-pass.
- Creation of nest sites and roosting ledges on any new or replacement structures.
- Waste management plan for construction and excavation wastes.
- Mitigation measures to avoid silt release.
- Biosecurity precautions, particularly in relation to crayfish plague.
- Effects of lighting on fish-pass effectiveness.

Depending on the predicted changes in flow and velocity as a result of the preferred works option, it is recommended that the following be considered as part of survey work for the NIS and ecological impact assessment:

- Occurrence of alluvial woodland (up to 3km upstream and 2km downstream of weir)
– please contact NPWS (regional ecologist) if there are any issues with the interpretation of this habitat type.
- Occurrence of water crowfoot / starwort community (up to 1 km below the weir).
- Presence of freshwater pearl mussel (up to 150m below the weir).
- Presence of white-clawed crayfish (up to 150m below the weir).
- Presence of breeding otter (up to 150m above and below the weir).



- Spawning and juvenile habitat of lamprey species (up to 150m below the weir) - the advice of IFI should be followed in relation to survey and impact assessment for these species.
- Salmon and Twaite shad: The advice of IFI should be followed as to whether these species need to be surveyed.
- Presence of breeding river birds: kingfisher (Birds Directive Annex 1 species), grey wagtail (amber listed species) and dipper (up to 100m above and below the weir).
- Presence of invasive species (e.g. Japanese knotweed, Himalayan balsam, giant hogweed) in works area.

It is recommended that proposals for the monitoring of the efficacy of the fish-pass, particularly in relation to Twaite shad access, are included in the NIS. The use of eDNA could be considered, as primers for Twaite shad have been developed by UCD⁶.

You are requested to send further communications to this Department's Development Applications Unit (DAU) at manager.dau@chg.gov.ie (team monitored); if this is not possible, correspondence may alternatively be sent to:

The Manager
Development Applications Unit (DAU)
Department of Culture, Heritage and the Gaeltacht
Newtown Road
Wexford
Y35 AP90

Is mise, le meas

Connor Rooney
Development Applications Unit

⁶ Atkinson, S., *et al.* (2017) Assessment of the extent and impact of obstacles on freshwater hydromorphology and connectivity in Ireland.
http://www.ucd.ie/reconnect/t4media/National_Water_Event_2017_S_Atkinson_FINAL.pdf