

lascach Intíre Éireann Inland Fisheries Ireland

2021

Annual Report and Financial Statements



Mission statement

To protect, manage and conserve Ireland's inland fisheries and sea angling resources, maximising their sustainability and natural biodiversity.

Principal functions of Inland Fisheries Ireland

Inland Fisheries Ireland is the statutory body responsible for inland fisheries in Ireland. It operates under the aegis of the Department of the Environment, Climate and Communications (DECC).

The principal function of Inland Fisheries Ireland is set out under Section 7 (2) of the Inland Fisheries Act of 2010. This is the protection, management and conservation of the inland fisheries resource. The general functions of Inland Fisheries Ireland are to:

- Promote, support, facilitate and advise the Minister on the conservation, protection, management, marketing, development and improvement of inland fisheries, including sea angling
- Develop and advise the Minister on policy and national strategies relating to inland fisheries including sea angling, and
- To ensure implementation and delivery of policy and strategies developed as agreed with the Minister.

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Chairman's introduction

I am delighted to introduce you to our Annual Report for 2021. This was a year in which our whole team continued to rise to the challenges presented by the COVID-19 pandemic, while also striving to deliver on our vision to place the inland fisheries resource in the best sustainable position possible for the benefit of future generations.



Our principal mission is to protect, manage and conserve Ireland's inland fisheries and sea angling resource, as set out in the Inland Fisheries Act 2010. Our values are defined by our guiding principles: we collaborate with professionalism, transparency and integrity, while acting with respect in our role as stewards of our environment.

2021 saw the start of our new five-year Corporate Plan, which has been devised to address the pressing need to increase our conservation efforts while also protecting and developing our resources. Our Corporate Plan sets out new High-Level Objectives and a set of action plans to help us meet these. Page 9 sets this out in more detail and this report indicates where we addressed our High-Level Objectives during the year.

The Board of IFI is accountable to the Minister for the Environment, Climate and Communications and is responsible for ensuring good governance and compliance with the provisions of the Code of Practice for the Governance of State Bodies. We advise the Minister on policies and strategies on inland fisheries and sea angling. As part of our statutory remit the Board devises strategic plans and targets, takes strategic decisions on key business issues and prepares an annual business plan and budget. The Board is also responsible for maintaining adequate financial records, safeguarding IFI's assets and taking reasonable steps to prevent and detect fraud and other irregularities.

Our Chief Executive Officer (CEO), who is an ex-officio member of the Board, liaises directly between the Board and the senior management team. Together, the CEO and the senior management team are responsible for the day-to-day management, direction and control of IFI, broadly following the strategic direction set by the Board. They keep the Board informed on the implementation of strategic policies and any significant risks.

People are key to what we do: we strive to engage our staff, anglers and the general public. We enjoy valuable and continued support from the Minister for the Environment, Climate and Communications, Eamon Ryan TD, and his colleagues, for which I am very grateful. The Board and I wish to extend this gratitude onto each one of our IFI colleagues, who continue to work with unerring dedication and professionalism in delivering our fisheries services.

Finian Goman

Fintan Gorman, Chairman

Chief Executive Officer's foreword

With great pride in our successes, I welcome you to our 2021 Annual Report, along with huge gratitude to my colleagues who remain committed and professional, despite the ongoing COVID-19 pandemic.



In line with our values, we work transparently, openly and with respect, and collaborate with integrity, mindful in particular of our role as stewards of sustainability. Our actions are driven by our new Corporate Plan for 2021-2025 (page 9), which sets out our High-Level Objectives: throughout this report you can find out these were addressed in 2021.

Our mission is to protect, manage and conserve Ireland's inland fisheries and sea angling resources, and to maximise their sustainability and biodiversity. You will find some of our key accomplishments, including:

- Monitoring and conservation across multiple fish species and habitats, in new and ongoing projects, aided also by our new Mobile Support Unit
- Expanding our use of technology such as data buoys, e-bikes and drones, and improving our infrastructure
- Collaborating with other organisations, from cementing our connections with OPW and various international scientific projects, through to establishing new relationships with citizen scientists
- Education and outreach, particularly targeting in particular children, women and people with disabilities
- Focusing on sustainability, from building upgrades to reduce energy consumption through to increased use of PVs and EVs; the Sustainable Energy Authority of Ireland (SEAI) confirmed a noteworthy achievement of a 43.6% saving in energy by the end of 2020
- Advancements and collaboration across all our teams, from finance, to logistics, to the green team and procurement, as well as our field-based scientists and Fisheries Officers.

I, the Board, and all of us at IFI are hugely grateful to everyone at the Department of the Environment, Climate and Communications, who are steadfast and professional in their support, in particular Minister Eamon Ryan TD.

I would also like to express my profound thanks to all my colleagues at IFI for their unfailing rigour, enthusiasm and allegiance to our vision. I look forward to us building on our solid foundations and delivering a bright future for fish and habitats, for our own people, and for the wider community.

Jean Donel

Francis O'Donnell, CEO

IFI Board Members

Fintan Gorman, Chairman	Appointed September 2013, reappointed September 2018
Bernadette Orbinski Burke	Appointed July 2016
	reappointed July 2021
Michael McGreal	Appointed March 2019
Seamus Boland	Appointed March 2019
Marie Louise Heffernan	Appointed May 2019
Fiona Walsh	Appointed July 2019
Patrick Gibbons	Appointed January 2016
	reappointed February 2021
Seán Coady	Appointed November 2015,
	reappointed December 2020
Professor Frances Lucy	Appointed March 2015,
	reappointed December 2020
Francis O'Donnell, CEO (ex officio)	Appointed November 2020

IFI Senior Management Team

Francis O'Donnell	Chief Executive Officer (and ex officio Board member)
Mr Pat Doherty	Head of Finance & Energy Performance Officer
Ms Roisin Bradley	Head of Human Resources
Dr Greg Forde	Head of Operations
Dr Cathal Gallagher	Head of Research & ICT
Ms Suzanne Campion	Head of Business Development
Dr Ciaran Byrne	Head of Logistics

River Basin Districts	
Mr Brian Beckett	IFI Dublin, Eastern River Basin District - ERBD
Ms Lynda Connor	IFI Clonmel, South Eastern River Basin District – SERBD
Mr Seán Long	IFI Macroom, South Western River Basin District – SWRBD
Mr David McInerney	IFI Limerick, Shannon River Basin District – SRBD
Mr Pat Gorman	IFI Galway, Western River Basin District – WRBD
Ms Mary Walsh	IFI Ballina, Western River Basin District – WRBD
Dr Milton Matthews	IFI Ballyshannon, North Western River Basin District – NWRBD

Corporate Plan

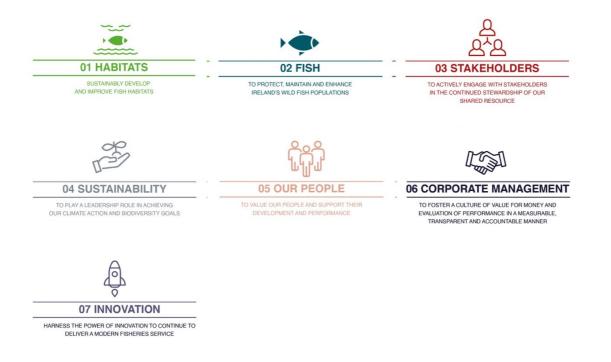
At IFI, we are guided by our Corporate Plan, which covers the period 2021-2025.

It details our Vision, Mission and Values. These drive our behaviours and focus our performance to meet our responsibilities on behalf of the public and the valuable resource that we are charged with protecting for existing and future generations.

High Level Objectives

Our Corporate Plan sets out seven High Level Objectives (HLOs) around which we structure all our activities. These are each broken down further into a set of actions and outcomes.

The seven icons representing our High Level Objectives appear throughout this report, giving an indication of how our projects seek to meet these objectives and contribute to our Corporate Plan.



Our Corporate Plan is available to read on our website.

1. Protecting and Conserving Ireland's Fisheries Resource

Inland Fisheries Ireland is responsible for the protection, management and conservation of Ireland's fisheries resource, the fish and their habitats in all inland waterways and out to 12 miles offshore from baselines.

- We protect and safeguard fisheries directly through the work of our field staff located all around the country who enforce regulations and bye-laws in relation to fish and fisheries
- We monitor water quality and ensure that those responsible for pollution or fish kills are prosecuted
- We ensure that environmental developments take account of the need to protect our fisheries and secure the future for fish.

COVID-19: impact on our operations

2021 saw a continuation of the COVID-19 restrictions with differing levels of 'lockdown' and other health and safety measures. The need to keep staff as separate as possible also had a significant impact on the ability to patrol covertly.

The lockdowns had a significant impact on protection activities in 2021. However unlike in 2020, when there was a perspective that staff were not out and about, in 2021 IFI staff were able to be much more visibly 'on the ground'.

During 2021, against the positive backdrop of the vaccination campaign, the more transmissible Delta variant gave rise to challenges and more restrictions, and in turn the Omicron variant, while more transmissible, was less severe, caused rapid spread of infection and gave rise to a certain level of 'herd immunity'. By the end of the year it seemed that the pandemic was approaching the status of an endemic.

In order to keep operations active and flexible, IFI resorted to frequent use of antigen testing to ensure the safety of staff as they worked in teams around the country. The teams were somewhat like 'pods' with people remaining in set teams to reduce the chance of cross infection. 2021 saw the continued need for additional vehicles to protect the health of staff. It is hoped that this will not be required into the future in an effort to reduce costs and climate-related impacts.

As the year progressed, we were cleared to operate and were better equipped to mount 'normal patrols'; having modified vehicles for dual occupancy and put in place appropriate safety measures to protect the staff.

Despite these significant constraints, IFI had an extremely successful year in protecting the integrity of fisheries and the environment. In 2021, IFI recruited 37 temporary seasonal Fisheries Officers to augment the protection effort throughout the summer months.



Our protection patrols

Patrol activity in 2021

In 2021, IFI Protection Staff carried out protection activities in line with a comprehensive National Fisheries Protection Plan 2021. This plan identified the areas and times of greatest risk to fish stocks and specifically allocated resources to such areas. In addition, IFI also put in place a Mobile Support Unit (MSU), the aim of which was to supplement the protection effort of existing staff, particularly in areas of known problem poaching activities where local staff are unable to ensure cover throughout the three shifts of the 24-hour period over the key summer weeks.

IFI's Protection Staff dedicated a total 167,146 hours to anti-poaching patrolling activities, as set out in Tables 1.1 and 1.2. The number and breakdown of different types of patrol is shown in Tables 1.3 and 1.4.

Hours spent on anti-poaching patrols	2020*	2021
Lake patrols	28,845	34,556
River patrols	66,951	76,048
Sea patrols	4,879	7,418
Coastal/estuary patrols	28,770	31,187
Bass patrols	10,405	12,215
BFT patrols	2,157	1,232
Total number of hours	142,007	162,656
* Note: COVID-19 restrictions affected ability to undertake certain patrols under Level 5 conditions.		

Table 1.1: Hours	spent on	anti-noaching	natrols
	spent on	anti-poatining	pations

Hours spent on anti-poaching patrols: MSU June - September	2021
Lake patrols	0
River patrols	1,359
Sea patrols	65
Coastal/estuary patrols	3,336
Bass patrols	0
BFT patrols	0
Total number of hours	4,760

Table 1.2: Hours spent on anti-poaching patrols: Mobile Support Unit

Patrol type	2020	2021
Total vehicle and foot patrols	30,882	33,307
Boat patrols	573	790

Kayak patrols	129	159
PWC patrols	56	33
Quad patrols	46	5
Bicycle patrols	1,227	1,562
Air Corps patrols	2	4
Drone patrols	136	392
Total number of patrols	33,051	36,252

Table 1.3: Number of patrols by type

Patrol type	2021
Total vehicle and foot patrols	102
Boat patrols	7
Kayak patrols	2
PWC patrols	0
Quad patrols	0
Bicycle patrols	2
Air Corp patrols	0
Drone patrols	14
Total number of patrols	127

Table 1.4: Number of patrols by type Mobile Support Unit

Whilst some of the runs of salmon were not as prolific as in 2020, the returns to many rivers were still encouraging. However, issues associated with the pandemic continued in 2021 with additional pressures being put on vulnerable fish stocks due to people not being at work. This diminished as the year progressed and life returned to nearer normality.

Some examples of our patrols in 2021

Seizures – SWRBD Cork/Kerry 2021

3,120 metres of illegal net were seized off the Kerry coast in 2021, representing an increase of 2,700 metres on 2020 and an 850% increase on the average length seized over the previous five years. The majority of nets were seized on the Dingle Peninsula and in the Brandon Head and Smerwick areas.

In line with the policy of staff working in different areas, the Kerry District team was assisted by members of the Cork District, deploying Delta 11 on joint patrols with Delta 3. The MSU was also deployed to the District during the peak season to supplement the work of the local teams and was instrumental in the seizure of six nets during that time. Thirty-one nets were seized in total, of which 22 were on the Dingle Peninsula. Fifty-two Delta RIB patrols were conducted during the year to detect and prevent illegal netting at sea in the South West River Basin District.



Images: Illegal net seized at Cahir Point, Brandon

Seizures – Shannon RBD July 2021

The ongoing surveillance operation of the Fergus River at Clonroad paid off in July 2021. After covert surveillance, which included the use of the new thermal imaging cameras, Officers apprehended two men in possession of eight salmon and three brown trout. In a follow up operation the next day, Officers seized six nets (totalling 220 metres) and an aluminium boat used in the previous night's activities. Both individuals will be before the courts in 2022.



Image: Salmon and brown trout seized on the River Shannon

Seizures – July WRBD Ballina 2021

Staff were involved in numerous cross-pollination patrols working in neighbouring Districts. During one operation, staff took part in a Delta patrol at daybreak which produced a capture when a boat was observed fishing illegally off Frenchport. Other inter-District patrols took place between Bangor and Ballina (numerous Delta patrols), as well as patrols on the Easky River with Sligo staff.



Image: Early morning patrol during which one person was apprehended off Frenchport with two illegally mounted nets

Seizures – SERBD August 2021

During the month of August, the SERBD West Waterford protection patrols seized five illegal stake nets on the upper Waterford estuary. Two nets were taken from Riverquarter with a further three being seized at Poulrone. September patrols resulted in the seizure of a further four illegal stake nets: two nets were seized at Middlequarter, Co. Kilkenny, measuring a combined 60 metres, one was seized at Riverquarter, Co. Kilkenny, measuring 50 metres and one net measuring 50 metres was seized in the Kings Channel of the River Suir in Co. Waterford. An additional net was found hidden in the tree line and seized during a follow up search by staff in Riverquarter. The East Waterford team encountered two illegal nets set on the River Barrow at Bauck and Drumin: both nets contained a salmon, one of which was released back alive. The area in which the two nets were set was known to staff, as a week previously they had come across a cot hidden in the woods.



Images: Nets seized from Poulrone, Co. Kilkenny

Bass seizure – SERBD October 2021

Significant hours were allocated to the protection of bass in the SERBD, across both recreational angler inspections and illegal netting checks. Following a surveillance operation, the Wexford team were successful in the apprehension of an individual in the Carne area. In one morning of October 2021, staff seized 25 seabass and 250 metres of net used unlawfully. The case file is with the solicitor.



Image: 25 sea bass seized at Carne pier

Several contacts/calls to the hotline were received about people illegally fishing at Bohernabreena Reservoir and Brittas Lake during 2021. IFI mobilised a number of joint patrol responses in collaboration with An Garda Síochána to great effect.



Image: Joint IFI patrols with An Garda Síochána (Dublin District)

Escapee farmed salmon – Dawros River

Officers from the Western River Basin District in Galway were alerted to the likely presence of farmed salmon by anglers fishing for wild Atlantic salmon on the Dawros River in Letterfrack, more commonly known locally as the Kylemore River. The anglers had captured fish with poorly formed fins and other distinguishing features that are associated with farmed salmon. Samples collected were relayed to Research Department who confirmed that the fish were of 'aquaculture origin' and not wild Atlantic salmon. Enquiries locally did not identify whether the fish were from the neighbouring salmon farm.



Image: Captured salmon

Sustainability patrols – bicycles

During 2021, IFI staff undertook 1,562 bike patrols, an increase from 1,227 in 2020. New e-bikes are proving to be effective as vast stretches of the canals can be covered with more ease. Feedback from these patrols is very positive from staff and indications are that they are an effective additional patrolling method.



Image: Bike patrol of Rossmore Park

Rossmore Park e-bike patrols

The Rossmore Park Lakes are located in the Coillte Forest Park on the R189, 3km from Monaghan Town. There is excellent parking but access to the lakes is difficult with foot access for the public only. Fisheries Officers regularly patrol the park and its numerous lakes by bike and/or e-bike. There are several lakes in this cluster with the most popular angling venues being the Twin Lakes, Castle Lake, Priestfield Lake and Barnhill Lake. These lakes are generally shallow and best suited to pole and float fishing. All of the lakes are regularly used by anglers and have had incidents of illegal activity. The usual patrol route is shown in the graphic and is just under 7km in total length. This is a great example of a location in which bikes and e-bikes work very well in allowing efficient patrols of this terrain, and this large area.



Image: Rossmore Park patrol route

Drone patrols

Drone technology offers exciting uses across a wide range of fisheries operations: they can monitor locations that would otherwise be hard to reach, and can cover areas more quickly, thus significantly reducing man hours.

A total of 392 drone patrols were completed in 2021, representing a significant increase on the previous year when 136 were undertaken. Drones are particularly useful in monitoring reedy areas for boats, and shorelines for floating nets and corks. They are also helpful in assisting research surveys and in support of habitat and development work. The development of an in-house app has enabled the logging of all the relevant data which avoids significant paperwork.



Image: Drone Patrol, River Vartry



Image: Illegal net with floating head-line detected by Fisheries Officers using drone technology



Image: Drone application showing drone flights completed during 2021 in ERBD

Our drones in use: some examples

- In June 2021, IFI provided Galway County Council with drone footage of the Dawros catchment to try to find a solution to the flooding issues at Kylemore, Letterfrack, Co. Galway
- In September 2021, Nuacht on TG4 filmed a drone patrol with WRBD Galway, to highlight the increase in illegal fishing activity in 2021 and to showcase the use of drones as part of the day-to-day activities of IFI personnel
- Staff in Leitrim conducted a drone survey of the confirmed route for the new N5 Ballaghaderreen to Scramogue bypass. A series of flights were made at different access points along the route searching for unmarked watercourses and areas of fisheries interest. Watercourses identified were marked, photographed and their coordinates noted and entered on to a fisheries data sheet. This enables appropriate recommendations to be made to the road construction contractors in relation to the design of infrastructural crossing points in a manner that prevents negative impact on fisheries habitat. The IFI drone reduced man-hours spent traversing long areas of bypass corridor by IFI personnel.



Images: Drone survey of N5 bypass route (fenced) with archaeological dig site below. Aerial view of watercourse assessed during drone survey of bypass route

Air Corps support for IFI patrols

Each year Inland Fisheries Ireland seeks the support of the Air Corps in patrolling the near shore area for illegal drift net and other fishing. In total four Air Corps patrols were carried out in 2021.

As the areas to be patrolled are over the sea the only suitable aeroplane is the Casa which is a twinengined turboprop plane with a long distance capability.

An inshore air patrol was carried out by the Air Corps in July 2021. The patrol left from Baldonnel Aerodrome and was scheduled to patrol the west and south coasts. Due to low-lying cloud only certain sections of the inshore coastal region were able to be patrolled. These were off the Kerry coast south of Valentia, Galway Bay and the Clare coast between Black Head and Doonbeg. There were a number of small fishing vessels seen to be operating but none were involved in illegal activity.



Image: Inshore Air Patrol carried out on 1 July 2021

In August 2021, a further Casa protection air patrol in conjunction with the Air Corps was carried out along the southern and eastern coastline, from Mizen Head to Carnsore Point to Wicklow Head. A number of small bays were inspected with the intention of detecting any illegal drift netting. This patrol covered a lot of ground quickly and a number of boats were investigated and photographed but no illegal activity was detected.

Our fisheries inspections and compliance checks

The IFI Fisheries Officer teams operate throughout the country and engage with all types of anglers from coarse fish anglers to salmon, sea trout and brown trout anglers. Furthermore, they also carry out checks on commercial salmon fishermen as well as oyster dredge fishermen. The purpose of

these inspections is to ensure that anglers and licence holders are in compliance with all the terms of their permit or licence, including those relating to method, equipment, bag and size limits, and so on. In 2021, we carried out 36,099 such inspections despite the restrictions posed by COVID-19: see table 1.5 for details of fisheries inspections.

2020	2021
629	807
13,487	15,722
16,247	17,596
1,712	1,974
32,075	36,099
	629 13,487 16,247 1,712

Table: Number of fisheries inspections

Where anglers are in minor breach of regulations or perhaps just ignorant of the regulations pertaining to a particular area, IFI issues warnings. These are also issued to juvenile anglers who may be in breach of the regulations or anglers who may not be in breach of any regulation but would seem to be about to engage in such activity. In 2021 we issued 715 such warnings or cautions. The number of Fixed Charge Penalty Notices (FCPN) issued in 2021 was 296, an increase from 240 in 2020.

Cautions and Fixed Charge Penalty Notices	2020	2021
Cautions issued to anglers	756	715
Fixed Charge Penalty Notices issued	240	293
Tables Couties and fixed shares persite seties issued		

Table: Cautions and fixed charge penalty notices issued

Cautions and Fixed Charge Penalty Notices	2021
Cautions issued to anglers	0
Fixed Charge Penalty Notices issued	3

Table: Cautions and fixed charge penalty notices issued by the Mobile Support Unit.

The Mobile Support Unit is tasked with identifying more serious issues in a specific area or issues that are causing a local team difficulty, hence this team issues very few fines or cautions.

Where an offence involves the use of a net, the matter is taken very seriously; it proceeds directly to court and no FCPN option is offered.

There was a significant increase in the number of warnings issued in 2020 and this carried into 2021. This was in part associated with the change in angler habits in 2020/2021 associated with COVID-19. It should be noted that if an angler is warned once it is unlikely that they will be given such leniency on subsequent offences.

We also carry out spot checks of fish dealers and restaurants, hotels and guesthouses to ensure that no illegally-caught fish are being made available for sale or consumption. In 2021, we carried out 308 checks: see table 1.8 for details.

Compliance checks	2020	2021
Fish dealers checked	147	224
Restaurants, hotels, guesthouses checked	33	84
Total number of compliance checks	180	308

Table: Number of compliance checks

Illegal items seized in 2021

In the course of our patrols and inspections, we came across and seized a wide variety of illegal items and legal items used illegally. In 2021 we seized 1,195 illegal fishing items included fishing rods, dinghies, engines, traps and nets. The total length of the 242 nets seized was 11,690m.

In addition to this, from June to September 2021 the Mobile Support Unit seized 66 illegal fishing items. The total length of the 33 nets seized was 2,165m.

Illegal items seized	2020	2021
Nets seized (total length in 2021 was 11,690m), broken down as follows:	250	242
Seized at sea	45	48
Seized in freshwater	81	113
Seized in estuaries	124	81
Fish seized	761	730
Rods seized	238	191
Other items seized	38	32
Total number of items seized	1,287	1,195
Tables III and its managed		

Table: Illegal items seized

Illegal items seized by the Mobile Support Unit: June-Sept 2021	2021
Nets seized (total length for June – Sept 2021 was 2,165m)	33
Seized at sea	12
Seized in freshwater	19
Seized in estuaries	2
Fish seized	31
Rods seized	2
Other items seized	0
Total number of items seized	66

Table: Illegal items seized by the Mobile Support Unit: June-Sept 2021

Bluefin tuna

In 2021, 22 angling charter vessels were authorised to take part in Tuna CHART programme, operating from ports in Donegal, Sligo, Galway, Clare, Cork and Waterford between 1 July and 12 November 2021.

IFI delta patrol vessels monitored this fishery to ensure that no bluefin tuna were killed or retained. This programme has been extremely successful in recent years.

Case Study: Bluefin tuna cases heard at Glenties District Court

Prosecution cases were taken by IFI against two Northern Ireland-based anglers in relation to two separate incidents during August 2020 in relation to suspected breaches of the Bluefin Tuna Regulations (SI 265 of 2019 and Bye-law No. 981 of 2020). Both cases were heard at Glenties District Court in July 2021. Guilty pleas were submitted in each case. The judge declined to either convict or impose the Probation Act despite the two guilty pleas, however, each defendant was required to contribute €500 to IFI's legal costs prior to striking the matters out and returning their rods and tackle. Whilst the court result was somewhat disappointing, it is clear that the regulations in place are sufficient to enable IFI staff deter unauthorised angling for bluefin tuna.



IFI staff saving lives

Fisheries Officers help injured man

In March the case of a man who sustained 'life-changing' injuries while fleeing Fisheries Officers, was struck out on condition he make a €200 donation to the ISPCA. The Fisheries Officers involved were commended for their first-aid skills and professionalism at the scene.

Ballycroy man's life saved by fishery officers

Former county councillor's leg was impaled on quad handles

Leneghan had not made a full and frank admission, it would have been a challenging prosecution.

'PINNED'

A FORMER county councillor's life was saved when fisheries inspectors saw him get into diffi-culty while illegally catching fish.

Frank Leneghan (61) of Leathanmor Court, Bangor Erris, appeared before Achill District Court on Thursday, where he admitted to catching two salmon and a sea trout illegally in the Owenduff River in Ballycroy on May 27, 2020.

InspectorPatArmstrongofInland Fisheries Ireland told the court that on that date, two fisheries officers noticed a man pulling on a net in the Owenduff River in the townland of Owenglass in Bally-croy. They the saw the person get on a quad, head up the mountain and topple over.

Inspector Armstong said the two officers went immediately to the

scene and found the defendant trapped under the quad bike. The handlebar had gone through his leg. The officers gave Mr Leneghan

first aid and contacted the emergency services.

The fire brigade had to come to the remote area to cut the handlebar away from Leneghan's leg. The Coast Guard helicopter was called, but it had trouble finding the location and had to refuel before eventually locating the casualty. Insp Armstrong said the fishery

officers found two nets in the quad along with two salmon and a sea trout

After his release from hospital, Mr Leneghan admitted he was 'out for a feed that night', and he said he is very grateful to the fishery officers

Insp Armstrong admitted that if Images: Newspaper article on the Frank Leneghan case.

MR Gary Mulchrone, solicitor for Mr Leneghan, said his client will not forget being pinned to the side of the mountain in a hurry. He explained that he had to be airlifted to Galway University Hospital for emergency surgery and spent 17 days in hospital. He also had to

have surgery later on his back. Mr Leneghan had no previous convictions, and Mr Mulchrone said he is embarrassed to find him-self in this position. He added that the incident had been a wake-up call, and he asked Judge Fiona Lydon to consider the probation

Judge Lydon said there was no doubt that Mr Lenegan had been through the mill and had learned his lesson. She added that if it hadn't been for the fishery officers, he might not be here today, and she agreed to strike out the charges if he donated €200 to the ISPCA.



Eel protection

Discovery of illegal eel fishing

A number of eel nets was seized during eel operations on Waterstown Lake and Lough Ree by Officers from IFI in 2021. The nets were hidden in a remote part of the lake. Although no people were apprehended in 2021, a number of sets of gear was seized, the loss of which will impact on the owners' ability to carry out illegal fishing.



Images: Seizure of eel nets on Lough Ree in June 2021

During extensive walks of shoreline on Lough Ree by Officers from IFI Roscommon, an eel storage container poke/barrel was discovered in a remote wooded area of Elfeet Bay. This area is notorious for illegal eel fishing and this seizure follows other seizures of nets, long lines, minnow traps and other illegal engines over the past couple of years. This barrel is used to store illegally caught eels underwater until a 'collection day'. The mesh on the bag is narrow. The barrel placed in the bag is bottomless and has hundreds of small holes in it to ensure it stays submerged. During our patrol of the shoreline, other items used for illegal eel fishing including lines and bottle floats were observed.





Images: Eel barrel (top left) and evidence of long lining for eels found on Lough Ree shoreline (top right). Fyke nets with otter skulls in background discovered by IFI Roscommon (bottom).

Supporting a member of the public

Enniscorthy staff responded to a first aid incident in July 2021. Staff were on patrol and came across an individual who had been physically assaulted. The officers noticed the individual was in a distressed state and they were informed that the individual had health issues and collapsed. The officers ensured their safety and called for emergency assistance. The individual regained consciousness and was supported until the emergency services arrived on the scene.

Prosecutions initiated and concluded in 2021

For more serious offences under fisheries and environmental legislation, Inland Fisheries Ireland initiates prosecutions. In 2021, 116 prosecutions cases were initiated for breaches of fisheries and environmental legislation. A further 12 prosecutions cases were initiated by the Mobile Support Unit.

As it takes some months to process a case to a court hearing, the prosecutions we take usually relate to incidents that occurred in the previous year. So, in 2021 we concluded 82 cases for fisheries offences and commenced a further 103 cases. We also concluded 23 cases for environmental offences and commenced a further 13 cases. Due to COVID-19 safety concerns, some courts have deferred cases until the risk of infection is lowered, which has led to a significant backlog in certain areas.

Prosecutions	2020	2021
Prosecutions initiated for fisheries offences	119	103
Prosecutions initiated for environmental offences	17	13
Prosecutions concluded for fisheries offences	52	82
Prosecutions concluded for environmental offences	8	23

Table: Number of prosecutions initiated and concluded

Prosecution at Navan District Court

In January 2021, a man was convicted of having in his possession or control a spear gun in the River Boyne at Slane on 7 July 2020. He was fined €100 and costs and expenses of €1,530.72 were also awarded against him. The spear gun and salmon were forfeited.

Prosecution at Virginia District Court (sitting in Cavan District Court)

In January 2021, a bench warrant was issued for the arrest of a man, who failed to appear on the day. The judge convicted him in his absence and also granted the forfeiture of 14 coarse fish. The offender was convicted of impeding/obstructing an Authorised Officer, taking fish from the boat pond in Virginia (contrary to Bye-law No. 862 of 2009), and also for being in possession/control of a stroke haul.

Prosecution at Carlow District Court

In a case at Carlow District Court in June 2021, the defendant pleaded guilty to three charges on the summons, namely breach of Bye-law No. 970 2018, refusing to give his name and address contrary to Section 301 of the 1959 Act and failing to produce his fishing licence contrary to Section 303. The facts were outlined to the court. In mitigation, his solicitor stated that the defendant was 38 years of age, had two children and was on social welfare. He apologised for his actions and is apparently no longer fishing.

The Judge stated that she took a particularly poor view of the defendant's refusal to give his name and address. For this offence she fined him \leq 500 and gave him 120 days to pay this fine. The other two charges were marked proved and taken into consideration. She also directed that the defendant pay costs amounting to \leq 650 plus VAT.

Noteworthy prosecution at Ballina District Court

A case was heard in Ballina District Court relating to an incident at Belderrig Pier, Co. Mayo in July 2020, where five Fisheries Officers were obstructed, threatened, and assaulted while attempting to board a boat. When two Officers did manage to get on board, they were taken out to sea against their will, where their captors threatened to throw them overboard.

The three defendants involved entered a guilty plea and the case was outlined by the Director of Public Prosecutions (DPP) and evidence was given by the Officers involved in the incident. The judge accepted jurisdiction and evidence was provided by three Inspectors, an Assistant Inspector and a Fisheries Officer, outlining the facts on what happened on the night in question.

The judge directed that all three defendants undertake an anger management course and pay the sum of €2,500 each which will then be divided between charities with a small amount to be paid to the Inspector who ended up in the sea. She also requested a Probation Report on one of the defendants. If these conditions are met, she will consider suspended sentences and adjourned all matters until late May 2022.

Prosecution at Kilkenny District Court

Breaches of Fisheries Legislation (breach of Section 97(1) of the 1959 Act) occurred when two men were observed in the act of illegal netting on the River Barrow, attempting to capture salmon. The case was heard at Kilkenny District Court in July 2021. The defendants contested the charges. Evidence was given by three Fisheries Officers. At the end of the prosecution's case the prosecuting solicitor applied for a direction on the basis that the evidence tendered was not sufficient and that if this was a jury trial it would be unsafe to leave the matter to the jury. The judge in this case refused the application for a direction. The solicitor then said that his clients would not be going into evidence. The judge proceeded to convict the defendants on all charges and in respect of the breach of Section 97(1) of the 1959 Act he imposed the following penalties on the defendants:

Defendant A - A sentence of five months' imprisonment. A fine of €2,000 together with €1,245 costs, with twelve months to pay these amounts. All of the remaining charges were marked proved and taken into consideration.

Defendant B – A sentence of three months' imprisonment. A fine of $\leq 1,500$ together with $\leq 1,245$ costs, with twelve months to pay these amounts. All of the remaining charges were marked proved and taken into consideration.

As a statutory consequence of the conviction for use of a boat contrary to Section 285(A)(1) of the 1959 Act, the boat is automatically forfeited. The judge fixed recognisances in the event of an appeal to the Circuit Court, and IFI's solicitor was subsequently served with Notices of Appeal on behalf of both defendants.

The cases were appealed to the Circuit Court and were dealt with at Kilkenny Circuit Court in October 2021. The appeals were against severity of sentence. Probation Reports on both appellants were handed into Court and the facts were outlined to the Court by a Fisheries Officer. The previous convictions of both appellants were given to the Court, together with details of the pending case against the offender. Having heard the evidence and the submissions, the judge stated that he would finalise the case that day. He ordered the offender to carry out 50 hours of Community Service in lieu of the sentence of three months' imprisonment and he reduced the fine to \notin 500 and allowed him three months to pay this fine. He confirmed the Order for costs of \notin 1,245 granted in the District Court but made no Order as to costs in respect of the appeal. This case has been adjourned to February to await a further report from the Probation Service.

Prosecution at Kilkenny District Court

A defendant pleaded not guilty to the breach of Bye-law No. 975 of 2019 in a case on illegal salmon fishing heard at Kilkenny District Court in July 2021. The basis of his defence was that he disputed that the area in question is known as 'The Bullock Hole'. His evidence was that it is known as 'An Bolg'. This distinction was rejected by the judge as being irrelevant in that the locus of the offence was clearly given on the Summons as being at Inistioge in the District Court area of Kilkenny.

The defendant also stated that when he landed the salmon it was bleeding profusely from the gills and was not going to survive. He therefore killed it humanely and took it with him. He stated that if he had returned the fish to the water it would have rotted. The judge did not accept this defence and proceeded to convict the defendant on breach of Article 3(a) of Bye-law No. 975 of 2019.

In mitigation, it was pointed out that the defendant has no previous convictions, and he is apparently in poor health. Having heard the evidence of the Assistant Inspectors, and the submissions made on his behalf, the judge imposed a fine of €300 together with €630 contribution to the costs of the prosecution. He allowed the defendant six months to pay these amounts and fixed recognisances in the event of an appeal to the Circuit Court.

Prosecution at Dundalk District Court

Inland Fisheries Ireland Officers outlined the facts of the case to Dundalk District Court in September 2021 of how two men had been observed in the act of illegally taking and killing pike on Drumcah Lough. Both men received a €300 fine each. As a statutory consequence of the conviction for use of a boat contrary to Section 285 (A)(1) of the Fisheries (Consolidation) Act 1959, the boat that was seized by Inland Fisheries Ireland is now automatically forfeited.

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Incidences of aggression against IFI staff while on duty

IFI continues to be concerned at the increasing level of hostility and aggression exhibited towards Fisheries Officers in the line of duty. Staff safety is paramount, but it is clear that not all citizens give these Officers of the State the respect deserved. In 2021, IFI staff recorded a total of 72 incidents of hostility/aggression directed towards staff in the course of their duty, an increase from 61 in 2020. In recent years, some of these have included physical injury from personal assault, being driven at by vehicles and being thrown into the water. IFI have for a long time been seeking the deployment of body cameras for teams operating in the field to help ensure the safety of staff. IFI will continue to deploy any tools possible to improve safety standards and consequences for our staff in the field.

Incident of aggression, Bangor

In July 2021, two individuals were apprehended illegally fishing the Owengarve River. Two nets, three salmon and a van were seized. During the capture, the Assistant Inspector was assaulted by one of the individuals. The staff member required medical attention and given the injury was inflicted to his face and mouth he was unable to eat for a number of days. Prosecution files were initiated and the case was heard in Achill District Court in January 2022. Having heard the facts outlined against both individuals and the subsequent mitigation offered by the defence, the judge made it very clear that she did not regard this sort of behaviour as fair play and commented upon it being blatant poaching and of a sinister nature. Given the circumstances, the charges were struck out on the basis that each individual pay €250 to IFI to assist in fisheries work and €750 plus VAT by way of a contribution to cost, with the fines to be paid within four months. The cases have been adjourned for mention to 12 May to ensure matters have been addressed satisfactorily.

Protection of water quality

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Inland Fisheries Ireland environmental and field staff carry out routine water quality inspections to assess levels of pollution in different habitats, and it is our policy to prosecute organisations and individuals in relation to environmental offences where habitat damage, pollution or fish kills occur.

Every year, significant pressure comes to bear on water courses from the spreading of slurries prematurely. There is no benefit in spreading slurry on waterlogged land or immediately prior to pending rainfall events; yet slurry spreading is permitted when grass growth is still virtually non-existent. Unless this is carried out in dry weather with a chance of growth, most of these nutrients are lost to streams and rivers and end up degrading the quality of these waters and the macroinvertebrate biodiversity therein.

In 2021, a total of 2,382 farm visits were carried out throughout the country, and warning letters were issued in cases where there were particular concerns to fisheries.

The table below summarises the different types of environmental inspections we carried out in 2021. A total of 33,308 inspections were carried out in 2021: a significant increase on those carried out in 2020.

Type of inspection	2020	2021
Agricultural inspections	1,379	2,382
Industrial inspections	873	988
Wastewater and Water Treatment Plant inspections	1,571	1,957
Civil engineering/infrastructure project inspections	1,895	1,826
Forestry inspections	412	574
Habitat inspections	19,873	25,581
Total inspections	26,003	33,308

Table: Water quality and habitat inspections

Water pollution case at Cavan District Court

IFI secured a prosecution against Irish Water on 16 September 2021 in Cavan District Court. The prosecution was in relation to a pollution event that occurred at Arvagh Sewage Treatment Plant, Co Cavan. The judge fined Irish water €2,500 and awarded costs of €3,985.17.

Water pollution case at Tuam District Court

On 8 June 2021 at a hearing in Tuam District Court, Corrib Farming Ltd., of Tuam, Co. Galway, pleaded guilty to a breach of the Fisheries Acts, on 22 September 2020. Evidence was given by the Galway Senior Fisheries Environment Officer of tracing the source of a significant pollution event on the Suileen River back to a pipe emanating from the company's farm in Tuam. The initial report was made by a member of the public to IFI and, upon investigation, heavy algal growth was found in the river. These were indicators of nutrient enrichment of the waterbody, covering approximately 4km downstream of the discharge point, whereafter it enters the Clare River.

Water samples taken as part of the investigation confirmed that the farm discharge had caused water pollution of the Suileen River. Although the company fully cooperated and undertook to remedy the situation immediately, there was significant damage caused to the water quality of the Lough Corrib catchment. The judge convicted Corrib Farming and directed that the company pay €1,000, not by way of a fine, but towards restorative works on the Lough Corrib catchment – as well as laboratory expenses of €349.32 and legal costs of €800.



Images: Polluted Suileen (top left and right) and farmyard discharge pipe (bottom)



Environmental protection projects

- An historical landfill site at Balbane, Killybegs, Co. Donegal commenced remediation works as directed by the Environmental Protection Agency and implemented by Donegal County Council (DCC). DCC has engaged RPS Consulting to formulate a site plan and in turn RPS has appointed Priority Construction to undertake the works required. The overall aim is to secure the site, provide drainage and cap the area to stop infiltration leading to leachate loss to the upper Bungosteen River, a salmonid bearing system. The site itself is extensive and very exposed and IFI staff have visited on numerous occasions, including assisting with site meetings and a drone survey. It is believed that the operation will conclude by April 2022.
- A peat slippage occurred on a section of the N56 realignment and remedial action was immediately implemented. IFI and DCC were contacted to identify and implement curtailment measures which were successful, and no material entered adjacent waters. The area has been revegetated and secured.



Images: Initial peat slippage (left) and area secured and monitored (right)

- IFI consulted with a landowner on the River Sheen, Co. Kerry, in relation to proposed rock armour bank protection work. On inspection of the site the local Fisheries Environmental Officer discussed the negative impact of hard engineering (rock armour, intrusion into the river by machinery, cost) with the landowner, versus the environmental and cost benefits of soft engineering (bank slippages reinforced with soil, reseeded and replanted to reestablish and stabilize the bank). The landowner chose to proceed with the soft engineering solution. The outcome was of benefit to the habitat and biodiversity of the riparian zone as the natural river bank was maintained and will in future provide shade, diversity of plant life and nesting locations for wildlife. It is intended to use this as an illustration of what can be achieved when dealing with subsequent consultations. This project will be monitored with a view to encouraging similar projects at other locations in order to protect fishery habitat in line with the Water Framework Directive.
- Video footage was taken of sea trout spawning on a tributary of Lough Currane, Waterville, Co. Kerry, in November 2021. Good quality images were captured in the very small tributary. The objective was to inform the landowners of the importance of even the smallest of streams and prevent works that may have a negative impact on the habitat and fish stocks.



Image: Sea trout spawning in Lough Currane tributary

• On routine patrols in July 2021, IFI staff noticed that there was a digger in the Aughnacliffe River. On investigation it was found that the landowner had engaged a contractor to remove gravel from a stretch of approximately 300m, a portion of which was spawning gravel. A file is being prepared by IFI with a view to taking a prosecution.

Fish kills

Investigating and reporting on fish kills

Every year IFI records a significant number of fish kills. While the source of these fish kills is not always apparent it is IFI's policy that where the source is identified the organisation prosecutes those responsible.

In 2021, IFI recorded a total of 41 separate fish kill events throughout the country. This represents a substantial increase on the number identified in 2020. Furthermore, the number of fish killed in these events was also significantly up with in excess of 18,000 fish identified as having been killed. IFI hope to produce a more detailed report on fish kills later in the year.

The table below summarises the origin of the 41 fish kills reported in 2021.

Fish kills	2020	2021
Total of reported fish kills	15	41
Caused by agricultural practice	5	8
Caused by industrial operations	1	7
Caused by municipal works	0	2
Other causes (disease, natural causes)	7	24
Cause unconfirmed	2	0
Estimated number of resulting fish casualties – approximate	8,000	18,410

Table: Fish kills by origin

Fish kill at Barnagrow Lake, Co. Cavan

A member of the public reported observing dead fish on the shore of Barnagrow Lake, Co. Cavan in July 2021. IFI staff investigated and found huge numbers of fish had died. Over 5,000 fish in total were counted including bream, roach, perch and pike. A severe algal bloom was noted on the lake two days prior to the fish kill and water temperatures taken were as high as 22 degrees centigrade, with accompanying low dissolved oxygen. There was no evidence of pollution identified in a boat patrol also undertaken on the lake. It was concluded that the event was from naturally occurring factors such as high temperatures and low oxygen levels.



Images: Fish kill and algal bloom on Barnagrow Lake, Co. Cavan

Fish kill at Swanlinbar, Co. Cavan

The fish kill at Swanlinbar River, Co. Cavan was as a result of the ESB restocking programme where about 250 salmon parr were found dead at the location where they stocked into the river. The ESB confirmed they had restocked on the day in question. No dead fish were found above the location and thousands of salmon parr were still visibly alive at the location also. It was probable that these fish had perished during transportation and were released into the river along with the healthy fish.



Images: Salmon parr at Swanlinbar River, Co. Cavan

Fish kill at Butler's Bridge, Co. Cavan

A report was received regarding dead fish on Annalee River at Butler's Bridge, Co. Cavan. On investigation it was noted that 17 trout, three roach, three perch and two minnow had died. Water temperatures were taken at the site and were 22 degrees centigrade with low dissolved oxygen. Water levels were extremely low also at the time. It was found that the causes were natural, as there were lots of fish swimming in the water and no evidence of any pollution.



Images: Trout dead at Butler's Bridge, Co. Cavan

Fish kill at Glasha River

An investigation into a significant fish kill on the Glasha River, a salmon-spawning tributary of the Slaney River, was undertaken by a SERBD Environmental Officer. The fish kill was found to extend over a distance of approximately 2.5km and included approximately 3,000 trout, salmon, lamprey and stickleback mortalities. The source of the kill was traced to a farm stream crossing a short distance upstream with dead fish and invertebrates downstream of the crossing and live invertebrates in evidence upstream of the crossing. In investigation it was deduced that pesticides were the source of the pollution. A file has been prepared with a view to taking a prosecution.

Fish kill at Glore River, Co. Mayo

On 3 September 2021 reports were received of a fish kill incident at the Glore River, an important spawning ground for salmon and trout, near Kiltimagh, Co. Mayo. Environmental and Fisheries Officers from WRBD Ballina attended the scene. Water and fish samples were taken from the site and removed for scientific analysis at an independent laboratory. Staff walked downstream of the incident and collected dead salmon, trout fry and parr. In this serious fish kill incident, a total of 500 dead fish were collected but the number killed is likely to have been much higher.



Image: White discharge from the Kiltimagh Water Treatment Plant river bank



Image: Dead fish recovered from the Glore River

The investigation into the serious fish kill incident has been completed. A file has been prepared with a view to taking a prosecution. Given this, no further details on the investigation will be outlined in this report.

Pollution incidents

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- A report of oil pollution at the site of Liffey Mills in Roscrea was received via the hotline. A check the next day showed the pipe running clear. Investigations with Liffey Mills point to a truck leaking hydraulic fluid as the likely source of the pollution. Liffey Mills have committed to the installation of an additional oil/silt separator at the facility.
- A call was made to our hotline reporting a pollution incident on Lough Tunny, Dungloe, Co. Donegal. On investigation, it was noted that a serious algae bloom had occurred on the lake given the high temperatures in the days leading up to the event. The lake is connected to Lough Nacre and it is expected that nutrient overloading from the old dump at Lough Nacre may have been a contributing factor. A drone was deployed to capture some images of the extent of the event.



Images: Drone footage of Lough Tunny showing algae bloom

On 16 January 2021 staff received a call to the hotline regarding a pollution incident at the Carrowbeg River in Westport, Co. Mayo. The incident involved an accidental discharge of wash into a storm drain from a detergent can which was being cleaned for recycling. The storm drain was blocked to prevent further contamination and with the assistance of the Westport House staff the pipes were washed and pumped out. The following day, a drone, kayak and shoreline survey of the adjacent shallow lake was conducted to check for any fish mortalities, however none were recorded.



Image: Carrowbeg river, Westport, showing detergent pollution

Aquaculture 2021 – Salmon aquaculture licence application

An application for a new salmon aquaculture site licence has been forwarded to IFI for comment. The proposed licence is in outer Ballinakill Bay into which the Dawros or Kylemore River flows. An existing salmon farm already operates closer inshore in this area already. IFI remains concerned about the level of salmon aquaculture being licensed adjacent to important wild salmon and sea trout fisheries as well as fisheries of importance to the severely endangered freshwater pearl mussel.

Planning observations

As part of the IFI remit to protect fisheries and their associated riparian habitat, IFI reviewed 10,281 planning applications and made specific submissions on 1,341 in 2021. Whilst it is not possible to summarise these submissions in this report, the observations are retained on the local authority files once submitted, which are publicly available.

Special Areas of Conservation recommendations

As part of an overall review of Special Areas of Conservation (SAC) in the country, IFI made a submission to the National Parks and Wildlife Service with recommendations for the revision of certain SACs around the country.

Aughrusbeg Lake, Clifden, Co. Galway

Arising out of the discovery of pike in Aughrusbeg Lake, where they had never previously been recorded, several days were spent on stock management to ascertain the level of pike in the lake. A total of 20 pike were accounted for including fish caught by two electrofishing boats, sample nets and fish reported through social media, along with those initially caught in the WFD sampling programme in 2021. The stock management programme has concluded temporarily but will resume in early 2022 prior to the pike spawning season.



Climate Action in IFI progress 2021

The Climate Action and Low Carbon Development (Amendment) Act 2021 commits Ireland to reach a legally binding target of net zero emissions no later than 2050, and a cut of 51% by 2030 (compared with 2018 levels). Under the 2021 Act, Ireland's national climate objective requires the state to pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy.

IFI Energy Results

The Sustainable Energy Authority of Ireland (SEAI) reported that Inland Fisheries Ireland achieved a 43.6% saving in energy by the end of 2020. This was a remarkable achievement and a testament to the efforts that were made by IFI staff to achieve this result. It sets IFI on the correct path to achieving net-zero emissions by 2050.

Our local and national green teams continue to play a positive role in working towards achieving the 7% annual reduction of greenhouse gas (GHG) emissions by 2030. Further energy-efficient projects have been rolled out in 2021, including rooftop solar panels, removal of old storage heating, replacement of fuse boards, power upgrades to properties and building upgrade works that included airtightness and insulation.

Next steps on climate action

IFI remains committed to optimising the sustainability and efficiency of property, fleet, waste, water management and green procurement regimes. Among the measures for 2022 are:

- Provide ongoing support and development of IFI green teams
- Install 24 EV charging points and 11 PV (Photo Voltaic) systems
- Purchase only zero-emission vehicles where available and operationally feasible from the end of 2022, enabling Inland Fisheries Ireland to go beyond the requirements of the Clean Vehicle Directive and act as a leader in this area
- Report on emissions and sustainability, resource efficiency and biodiversity activities
- Deliver a green procurement approach by including carbon pricing and climate criteria in public tenders
- Deliver further green technologies to the IFI property portfolio
- Install more electric vehicle (EV) charging points nationally
- Carry out more property surveys to achieve energy efficient savings
- Continue to be part of the SEAI partnership approach to sustainability
- Monitor waste being produced by IFI
- Ensure policies and practices do not lock Inland Fisheries Ireland into high-carbon pathways and the carbon-proofing of major decisions and programmes on a systematic basis, moving over time to a near-zero carbon investment strategy (property procurement programme)
- Continue to extend the energy audit process to additional IFI properties

- Meet SEAI specialists on near-zero energy building (NZEB) requirements, supports and strategy
- Ongoing identification of projects and actions based on energy monitoring data across all locations (shallow and then deep measures) including solar thermal and PVs, energy efficient windows, doors, cavity wall insulation, roof insulation and energy efficient heating systems
- Continue rollout of intelligent lighting systems in all IFI public buildings and continue conversion of light fittings to LED where possible
- Monitor and revise energy performance and energy reduction targets across all locations.

IFI properties

- IFI achieved five building energy ratings (BER) and seven display energy certificates (DEC) at its properties in 2021, bringing the total BER-rated properties to 19
- Planning for a 14.72kWh PV system at IFI's Ballyshannon office has been approved in 2021, with the project set to commence in February 2022
- Plans are being compiled in 2021 for a 34.7kWp system and car charging port at IFI's Galway office, this project will be implemented in Q3 of 2022
- A 6kWp PV system has been installed at IFI's Brackwansha base
- A 6kWp PV system has been installed at IFI's Lough Conn base
- A building energy survey was carried out at IFI's warehouse in 2021 and the need for insulation in the front part of the property was identified; a contractor has been assigned to insulate IFI's warehouse in Citywest in Q1 of 2022
- Energy surveys were carried out at an additional four properties in 2021; these properties will see building fabric upgrades and heating replacements
- IFI went to tender for the supply of 11 further PV installs and 24 further EV charging points

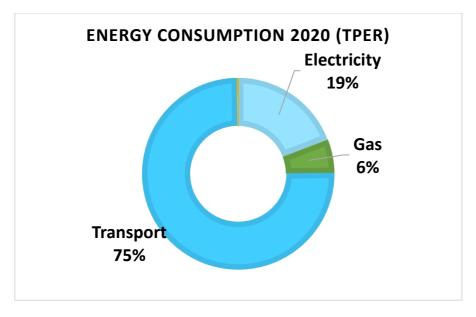


Figure: Energy consumption in 2020 shown as total primary energy requirement (TPER)

The following graph demonstrates the continued decline in electricity usage within IFI. The introduction of rooftop solar PV, new heating systems, property surveys, building fabric upgrades and employee engagement helped to reduce energy. Electricity consumption is down from 1,008,159kWh in 2020 to 931,875kWh in 2021.

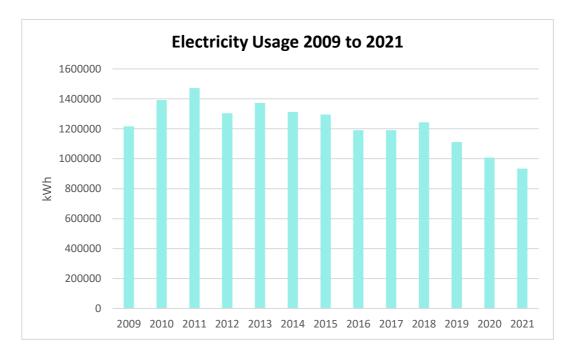


Figure: IFI electricity usage trends: 2009 to end of 2021

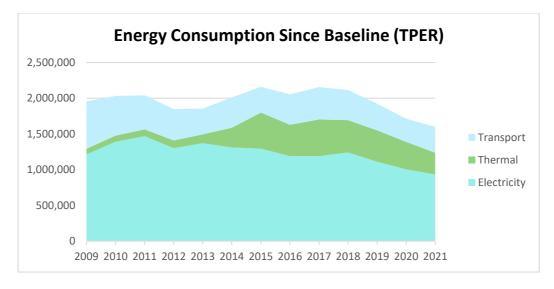


Figure: IFI energy consumption trends: 2009 (SEAI reporting baseline year) to end of 2021

Lough Arrow Base – WRBD Ballina

Lough Arrow Base in Ballina is an example of an IFI property that has been made energy efficient in 2021 through airtightness, insulation slabs, an insulated garage door and heating replacement. IFI are beginning to see a decline in energy usage at the property.



Image: Loch Arrow Base made energy efficient with solar panel roofing

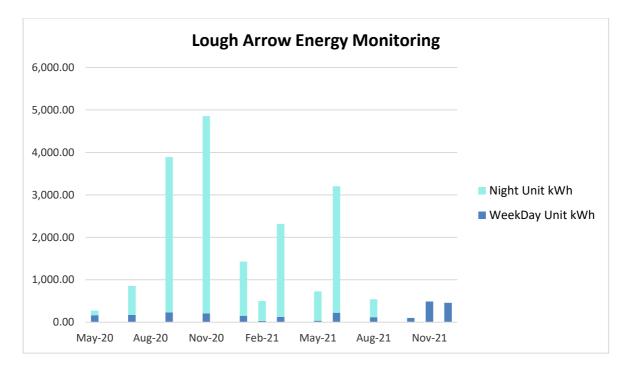


Figure: Loch Arrow energy monitoring trends in kWh May 2020 to November 2021

2. Research: Developing knowledge to inform action

Inland Fisheries Ireland's research teams provide the scientific advice that supports and informs our efforts to protect and conserve Ireland's fisheries resources. Their work ensures that we have a thorough understanding of the challenges we face and that we can develop appropriate responses to conservation issues, whether these are providing species or habitat conservation and restorational works, or measures to mitigate known environmental pressures. They also continue to develop and share knowledge and expertise relating to our fisheries and the habitats that support them. Our researchers are applied scientists who use proven methodologies and rigorous scholarship, combined with a strong commitment to the welfare of our fisheries and the environment and habitats that sustain them.

Our research covers the following:

National Research Survey Programme (NRSP)

Lakes and Rivers (NRSP-L&R) – covering individual fish species, habitats, invasive plants, surveys of individual lakes and rivers, and also meeting some of Ireland's obligations under the Water Framework Directive (WFD)

Marine Sport Fish Programme

Includes studies on particular species such as bass and bluefin tuna

Hydromorphology and habitat restoration

The physical habitat factors that underpin ecology and the connectivity of rivers

Species of conservation concern

Monitoring and reporting on the status of the fish species listed under the EU's Habitats Directive and contributing to international projects including DiaDES

Salmonid projects

A range of research and advisory projects relating to wild salmon and sea trout

National Eel Monitoring Programme (EMP)

Ongoing research and monitoring of Ireland's eel population

National Research Survey Programme (NRSP)

The main functions of the NRSP team are to provide expertise in terms of sampling methodologies and field support to several research programmes, and to carry out specific applied research projects. Monitoring fish stocks status and how they respond to changes in environment and climate is essential in supporting management and sustainability of Ireland's important freshwater fish species and habitats. The team directly supports the delivery of several closely linked programmes (detailed below) which provides a streamlined and cost-effective service. The team's work includes:

 Meeting Ireland's fish monitoring obligations under the EU Water Framework Directive (WFD)

- Conducting river and lake surveys for various research programmes and providing support to the marine/transitional water team
- Promoting the recovery of salmonid populations in the Owenriff catchment effectiveness monitoring
- Building an evidence base in relation to the impact of climate change on freshwater and estuarine fish species in Ireland
- Learning more about invasive species and how to control them
- Adding to our knowledge about coarse fish species and pike so that we can protect, manage and conserve stocks and develop a clearer understanding of their interactions with other species
- Developing innovative survey techniques, including non-invasive methods.

The main achievements in 2021 are outlined below.

Water Framework Directive (WFD) and lakes and rivers fish monitoring programmes

The Water Framework Directive (WFD) (2000/60/EC) came into force in 2000 and was subsequently transposed into Irish law in 2003 (S.I. No. 722 of 2003). The Directive requires each EU Member State to assess the current ecological status of surface water bodies (rivers, lakes, and transitional waters) by monitoring a range of physical, chemical, and biological quality elements with ongoing monitoring to assess ecological status and change over time. Inland Fisheries Ireland has been assigned responsibility by the Environmental Protection Agency (EPA) to deliver the fish monitoring requirements for the WFD in Ireland. This programme has been ongoing since 2007.

A number of significant outputs were achieved by these programmes in 2021. These include: 14 river and lake reports, a successful field season despite some remaining COVID-19 restrictions, the completion of a project to develop a new approach for selecting sites for the national fish in rivers monitoring programme index and the development of a new draft six-year fish in rivers survey programme to meet the needs of both IFI and statutory requirements (for example fisheries management and WFD).

Factsheets and reports 2020

In addition to a large WFD summary report detailing work undertaken during 2020 delivered in Q2 2021, there were 10 lake reports and three river factsheets completed. See <u>www.wfdfish.ie</u> for more details.

Field sampling 2021

A total of 26 surveillance monitoring (SM) river sites, 21 SM lakes and four transitional waters were surveyed during 2021. An additional 248 river sites and four lakes were also surveyed and WFD fish ecological status was assigned to each. Sixteen additional sites on the River Barrow were surveyed using the boom boat electrofishing boat (see image).



Image: Boom boat electrofishing on the River Barrow near Carlow (masks were still required during the COVID-19 pandemic)



Image: Sample screenshot from the new electronic form for river electrofishing

Site selection in index catchments (rivers)

Well-designed environmental monitoring programmes are essential for evidence-based decision making. If a monitoring programme is poorly devised it can fail to provide meaningful information to inform management and policy making. The existing national fish in rivers surveillance monitoring network was limited and did not provide sufficient information for fisheries management or WFD programmes of measures purposes. In 2020, IFI initiated a project to review the existing fish monitoring network and implement a more scientific and data-driven approach for selecting monitoring sites within chosen index catchments, with the final goal being to develop a six-year fish monitoring programme in order to meet the needs of both IFI and the national WFD fish monitoring programme in Ireland.

The project involved selecting index catchments (67 in total) and, within each of these, selecting an appropriate number of sampling sites using the balanced acceptance sampling (BAS) approach. To do this, catchments were selected using a range of criteria, including size, connectivity to the sea and legacy/on-going IFI work. Within each chosen catchment, all potential sites were assigned

environmental parameters including stream order, altitude, percentage forestry and land use, and run through the BAS algorithm in R statistics package.

Extensive work was carried out to validate the outputs, including producing graphical analysis, site checking using ortho-imagery and site visits. The process is outlined in a separate report which will be available shortly entitled 'Using the Balanced Acceptance Sampling Approach for Site Selection in Index Catchments'.

Knowledge transfer has also been conducted by sharing the R code with other research projects within IFI and conducting workshops to demonstrate how to implement it. This work was also presented to IFI's Data Management Group and to the EPA and will be disseminated elsewhere during 2022.

Six-year WFD monitoring programme

A new six-year sampling programme was developed for both rivers and lakes, incorporating the next two WFD monitoring cycles (2022-2024 and 2025-2027) and has been delivered to the EPA. The new rivers schedule incorporates two major components, which run concurrently: the tri-annual SM cycle (2022-2024 and 2025-2027) and one six-year index catchment cycle.

EU Environment Agency reporting

IFI was requested to report for the first time in 2021 on the fish status for various waterbody types in Ireland for 2019 and 2020 under the Water Information System for Europe (WISE). The WISE-2 dataflow was established to obtain a harmonised flow of biological data reported as Ecological Quality Ratios (EQRs) from all surface water categories across the EU: rivers, lakes, transitional and coastal waters (TRAC). The fish status for 42 river sites, 15 lakes and 18 TRACs was reported. The delivery was accepted by the system as technically valid on 9 February 2022. This process will be carried out on an annual basis from now on.

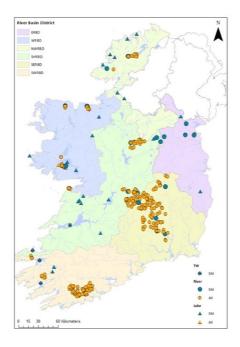


Image: Lake, river and transitional water sites and waterbodies surveyed in 2021

The Water Framework Directive (WFD) and lakes and rivers fish monitoring programmes benefitted from a host of new efficiencies in 2021. These included the rollout of the rivers field survey application; development of a lakes field survey application, compilation of a range of new standard operating procedure (SOP) documents and new statistical methods to improve operations within the programme.

Most staff received training under data management, for example using R statistics and SQL Server, and some also received training using ArcGIS Pro. Most staff are currently transitioning to using ArcGIS Pro for GIS purposes.

Data management

After the data management R statistics training was completed, staff began developing more efficient ways of generating multi-annual length frequency graphs. Knowledge transfer was undertaken by sharing the code with all members of the NRSP team and conducting two separate internal workshops.

Another piece of code is currently being written to help rearrange fish catch data more efficiently for use in the fish in rivers classification tool (FCS2-Ireland), which should expedite this element of work and remove potential human-derived errors.

Additional work has been undertaken to prepare both the rivers and lakes data for a new IFI database. This includes work on reference tables and continued work to relabel and recategorise data parameters in all relevant datasets.

Standard operating procedures (SOPs)

A suite of electrofishing SOPs have been written and/or updated in 2021/2022. These include six electrofishing SOPs and one SOP for the Cheetah Catamaran.

In addition, a new employee SOP has also been compiled to help new starts adjust more quickly to the programme and will be provided to new employees from 2022 onwards.

Other SOPs have been written to assist team members carrying out routine (yearly) GIS tasks, including obtaining environmental site data from GIS for the FCS2-Ireland classification tool.

Survey applications

The team began developing two new survey applications (for river and lake surveys) during 2020 with assistance from the IFI data management team. The rivers app was tested in the field in 2021 using ruggedised tablets and was subsequently used to enter all data collected. Further improvements have been made and will continue to be made until fieldwork commences in July 2022.

The lakes application (including field and laboratory modules) was tested in the field, on two lakes (Lough Corrib and Lough Nasnahida) and in the laboratory with fish and data from Lough Nasnahida. Further developments were made based on these trials. Further tests are planned in both the field and laboratory in 2022, with the aim of full rollout in late summer 2022.

New research boats

In 2021 two new Whaley boats were available to the lakes team. These boats were used during large lake surveys on Lough Corrib, Lough Melvin and Lough Leane. The increased speed and range of these boats improved efficiency, provided a better work platform compared with smaller lake boats and more space to carry survey nets safely, improving efficiency. Training for staff is planned for early 2022, to help improve the use of these boats on other lakes.

National Coarse Fish and Pike research programme (NCFP)

The broad objective of this research programme is to increase IFI's understanding of important coarse fish and pike species and their interactions with their environment and other resident species. The NCFP team works within the overall NRSP team to deliver joint surveys for all fish stocks present in rivers and lakes across Ireland and draws upon existing data sets to fill knowledge gaps. Specific research projects are also carried out as part of the programme.

Fish stock surveys

Fish stocks were surveyed on the main channel of the River Barrow, and on four lakes supporting coarse fisheries. A survey of a small lake in Co. Mayo, at the request of local RBD staff, revealed the presence of an exceptionally large tench population and supported development proposals on that fishery.

Four lakes on the Owenriff catchment, where pike are recent colonisers and are impacting on salmonid populations, were also surveyed. In addition, programme staff recorded pike for the first time in Lough Aughrusbeg in Connemara, and roach from Lough Atedaun on the Fergus catchment, highlighting the importance of continued monitoring programmes.

The diet of pike was assessed from 16 lakes where specimens were available from NRSP lake surveys.

All new efficiencies are outlined as per above for the WFD and the Lakes and Rivers Programme.

Promoting the recovery of salmonid populations in the Owenriff catchment

A fish population rehabilitation plan was initiated for the Owenriff Catchment, a sub-catchment of Lough Corrib, in 2018. The purpose of the plan is to develop a series of projects that can be undertaken to promote the recovery of the brown trout (both resident and migratory) and salmon populations in both lakes and rivers to prevent further decline. Baseline surveys of the fish stocks in the catchment were undertaken in 2017 and 2018 and will continue every three years to monitor change. An effectiveness monitoring programme was recommended as part of the plan. Monitoring and evaluation is essential for determining the effectiveness of measures aimed at improving fish numbers and condition.

Effectiveness monitoring

Four lakes (Loughapreaghaun, Adrehid, Ateeann or Leadmine and Shanaghree) were surveyed as part of the ongoing effectiveness monitoring in the Owenriff catchment. Twenty-six river sites (19 tributary and seven main channel) were also surveyed. A preliminary report was delivered to IFI Galway in September 2021.

A salmon catchment-wide electrofishing survey was also undertaken during late August 2021 across 31 sites. This was a repeat of a previous survey undertaken at the same sites in 2007. A preliminary report has been compiled.

Climate change

Data loggers continued to record water temperature at both main channel river and lake sites in the catchment. Water temperature data was downloaded in October 2021 and is currently being analysed.

All new efficiencies are outlined as per above for the WFD and the Lakes and Rivers Programme.

Climate Change Mitigation Research Programme (CCMRP) and Office of Public Works Climate Resilience Project (OPWCRP)

Climate change has been identified by IFI as one of the greatest current and future threats facing the wider aquatic environment and fish populations. Considerable uncertainties and research gaps remain in relation to the impacts of climate change on Irish fish species, populations and habitats. In response to this, a Climate Change Mitigation Research Programme (CCMRP) was initiated in 2019 to bridge a significant knowledge gap related to Ireland's fish species and climate change impacts. The aim is to build an evidence-based assessment programme to assess the impact of climate change on the Irish fisheries sector in both freshwater and estuarine environments and to inform and build capacity for fisheries conservation.

IFI and the Office of Public Works (OPW) also commenced a collaborative climate resilience research programme (OPWCRP) in late 2020 to investigate the climate vulnerability of arterially-drained catchments and to assess the capacity to build climate resilience for fishery conservation within these systems. Both projects will work together and share resources.

The programme will use advanced mapping tools to model stream temperature and other variables and identify waterbodies at risk from climate change impacts, assess protection and mitigation strategies and educate stakeholders.

Establish a long-term national index catchment monitoring network

A national index catchment monitoring network has been designed and installed in 12 near-natural and drained catchments. It is envisaged that this monitoring network will reveal the response of each index catchment to climate change and inform a national-scale assessment of the climatic vulnerability of freshwater fish habitat, including arterially-drained systems.

A total of 429 water temperature, water level and dissolved data loggers have been deployed across 12 catchments (rivers and lakes). Work during 2021 involved installation, maintenance, and turnaround of this important national monitoring network.

- 213 river water temperature data loggers have been installed and maintained across nine undrained index catchments to encompass east, west, north and south geographic variation (Gweebarra, Erriff, Doonbeg, Currane, Ilen, Nore, Dargle, Dodder and Vartry)
- 115 water temperature data loggers were deployed in river sites in three OPW catchments (Boyne, Moy and Inny)
- Seven dissolved oxygen loggers were installed in key river sites in the Lough Sheelin catchment
- 58 water temperature loggers have been installed and maintained in four lakes (Barra, Tawnyard, Currane and Derriana)
- A state-of-the-art lake monitoring platform (data buoy) recording water temperature at multiple depths allowing near-real time data retrieval was installed in Lough Sheelin in July 2021. A dissolved oxygen sensor was also installed near the lake surface. A second data buoy has been purchased and will be installed in Co. Kerry.
- Automatic weather stations have been installed and maintained at three sites close to, or within, index catchments. Each weather station has an integrated sensor suite and records air temperature, wind speed and direction, precipitation and barometric pressure data every 30 minutes.

Reports and factsheets

- CCMRP Annual Report 2020: this covers the installation and setup of the national monitoring network and included preliminary findings from the network
- A literature review on the impacts of climate change on freshwater fisheries was completed and accepted for publication as a book chapter in the upcoming new edition of the 'Encyclopedia of Inland Waters'
- A vulnerability assessment was completed for Ireland's freshwater fish species, and will be published during 2022
- Data buoy fact sheets: information was compiled for dissemination and distributed to relevant stakeholders.

Lough Sheelin data buoy

The newly installed state-of-the-art monitoring buoy on Lough Sheelin will monitor water temperature throughout the lake's water column. The data can be retrieved in near real time via a dedicated portal using the Internet of Things technology. This will provide important information on thermal stratification and fish thermal preference. A multiparameter water quality meter has been purchased and will be installed on the platform in early 2022. This provides an opportunity to monitor water temperature, dissolved oxygen and chlorophyll in the lake in real time through an online dashboard.

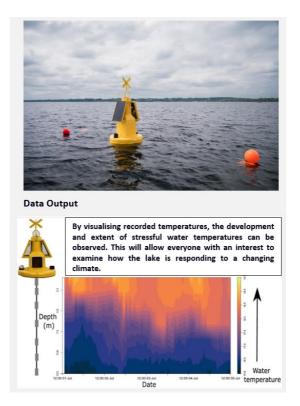


Image: State-of-the-art lake monitoring platform on Lough Sheelin

Flow measurement

An acoustic doppler current profiler (ADCP) system was introduced as part of the essential field equipment kit for the programme during 2021. This new high-precision instrument is much more advanced than traditional current meters and allows the team to standardise and measure discharge using inbuilt intelligent software. Training was provided to the team by the OPW in September.



Image: Measuring flowing using an acoustic doppler current profiler (ADCP) on the Dinin River, Co. Kilkenny

Model development

- Preliminary work began on using advanced mapping tools (stream network modelling/spatial-temporal models) to create risk maps for four catchments
- Thermal metric coding: code was developed to quickly summarise large water temperature datasets created for catchments.

Data management

- An ArcGIS Survey 123 application was developed for on-site collection of data, removing the need for paperwork on site/in office
- It is essential that all the data collected from the network is traceable and qualitycontrolled. A data management plan has been compiled and a database is being developed which will incorporate the data collected using the ArcGIS Survey 123 data and all data logger data, and provide dashboard capabilities for standardised on-site data collection and tracking logger deployment and turnover
- The weather station data is available via a free application (<u>www.weatherlink.com</u>)



Image: Early morning on the River Barrow

Marine Sport Fish Programme

Inland Fisheries Ireland is responsible for advising on policy and national strategies relating to sea angling in Ireland. The Marine Sport Fish Programme includes studies on particular species, including bass and bluefin tuna, and also covers recreational and estuarine surveys. This area of our research includes studies on particular species such as bass and bluefin tuna.

National Bass Programme

The National Bass Programme research aims to provide advice on bass stock by understanding the status of the stock through monitoring using a combination of applied research and citizen science derived data.

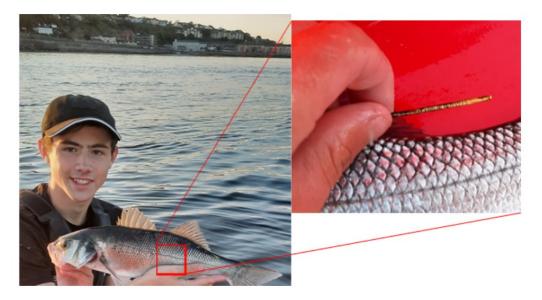


Image: Bass tagged with tag B-03272 during an IFI bass trawling survey of the Munster Blackwater in 2018, recaptured just 14km downstream at Youghal in 2021 by angler Warren Devlin

Due the collapse of bass stocks, commercial fishing for bass in Irish waters was prohibited in 1990. Since that time, bass has been managed solely for angling. Since 2013, IFI's National Bass Programme has combined fisheries research and citizen science to better understand the European sea bass found in Irish coastal waters. Four important bass nursery estuaries are surveyed annually to monitor recruitment of the juvenile life stages (age 0-4 years). Citizen scientists contribute to bass conservation by collecting bass scale samples of all sizes of bass, keeping logs of their bass angling activity and also tagging bass on behalf of IFI.

- In response to the COVID-19 pandemic, the net used in the seine-netting surveys was changed in 2020 and 2021 to a lighter, larger meshed net. This facilitated an efficiency in the number of staff necessary to undertake seine-netting surveys.
- Aligned with IFI's high level objective on Habitats, bass nursery seine-netting surveys and trawling surveys of key bass nurseries were carried out to monitor bass recruitment. This fits with the objectives of IFI's corporate plan by identifying and monitoring key nursery habitats for this sports angling species. Juvenile bass seine-netting surveys monitor young-of-the-year (0-group) recruitment at the four most important estuaries nationally, the Slaney, Barrow, Munster Blackwater and the River Lee at Tralee. These surveys indicated that bass recruitment of fry in 2021 was extremely poor across three out of four main bass nurseries (Barrow, Munster Blackwater and the Lee at Tralee). No 0-group bass were recorded from the Lee at Tralee in 2021, this follows a successful year for recruitment in 2020. Juvenile bass cannibalise younger bass groups, so it may be that the 2021 young-of-the-year were impacted by 2020's successful year-class. The Slaney recorded a moderately successful year, although young-of the year bass were small, suggesting there may be poor survival through the following winter (i.e., winter 2021/22).
- Trawling surveys of the three south coast bass nurseries (Barrow, Slaney and Munster Blackwater) provide information on the abundance of 1-4 age classes. The bass trawling surveys indicate that those bass recruited to all three estuaries in 2018 continue to thrive

in good numbers as three year olds. These were also picked up in the 2019 dataset in substantial numbers as one year olds and the 2020 dataset as two year olds.

- In summary, juvenile bass monitoring indicates that there is strong regional variation between nurseries and that neither 2020 nor 2021 were strong years for recruitment for key bass nurseries, with the exception of the Lee at Tralee in 2020.
- Citizen scientists submitted data on 78 bass through scale samples and tagging data. Additional samples collected in 2021 by anglers continue to arrive, so the dataset for the year is not yet complete. Bass reported by anglers were between 33cm and 56cm. The oldest bass recorded in 2021 was 12 years old at 56cm.
- Tagging data indicates that bass return annually to their summer feeding grounds, regularly returning to within a few hundred meters of their tagging location in previous years.
- A collaborative paper combining Irish nursery seine-netting survey data with that of seine-netting data from selected UK bass nurseries is in progress in a collaboration between IFI and CEFAS.
- An assessment of the stock using length-based angling data is also underway within IFI.

A report for anglers was published in 2021 summarising the data provided by citizen scientist bass anglers from 2018 to 2020: click <u>here</u> for the report.

Atlantic Bluefin Tuna Programme (Tuna CHART)

Atlantic bluefin tuna are the largest tuna in the world; they can reach lengths of over 4m and weigh up to 680kg (1,500lb). They are highly sought-after fish by sea anglers due to their power and speed. 2021 was the second year of a pilot data collection programme to catch, tag and release bluefin tuna in Irish waters. This fish is strictly monitored as Ireland has no quota for this commercial species, but it may be caught, tagged and released within the confines of the Tuna Catch and Release Tagging (CHART) programme.



Image: Atlantic bluefin tuna caught, tagged and released 27 August 2021 by Michael Callaghan, Donegal, authorised Tuna CHART charter skipper

This is a multi-agency collaboration between IFI, the Marine Institute, the Sea Fisheries Protection Authority and the parent government departments (the Department of the Environment, Climate and Communications and Department of Agriculture, Food and the Marine). The main objective of the programme is to understand the spatial and temporal distribution of the Atlantic bluefin tuna visiting Ireland's coast annually on a post-spawning migration route. Additionally, IFI aims to understand the potential socio-economic benefits of bluefin tuna angling to Ireland's coastal communities. With an emphasis on post-release survival and no mortalities where possible, Tuna CHART aims to maximise the sustainable nature of the bluefin tuna angling resource.

IFI Research coordinates the Tuna CHART programme, in collaboration with the stakeholders listed above. IFI Research plays a key role in the authorisation of Tuna CHART skippers annually, the methods and equipment permitted for bluefin tuna angling, the data collection and, critically, the training course. Training of authorised skippers is required by the EU and International Commission for the Conservation of Atlantic Tunas (ICCAT).

The advent of the COVID-19 pandemic influenced many aspects of this programme. The skipper training course was held online, incorporating videos, presentations, and a live video training session. Fish welfare is a key component of the Tuna CHART programme. Tuna CHART methods and guidelines were developed to maximise fish welfare and post-release survival.

Equipment and technology that was previously provided to authorised skippers upon attendance at the training course was instead delivered by courier. However, the programme was otherwise delivered on time thanks to collaborations between Research and Development, ICT and Operations. ICT is closely involved as all data is collected digitally by skippers on IFI-provided tablets. Operational staff carried out the gear and vessel inspections prior to final approval of the 22 authorised skippers to ensure that the required highest-rated equipment – rods, reels, hooks and line – were onboard and ready in order for skippers to receive their Section 14 authorisation and operate in this strictly monitored catch, release and tag survey programme. This gear was specified by Tuna CHART staff to minimise fight times and maximise good outcomes for this powerful but sensitive fish. The authorised skippers reported all bluefin tuna angling activity within 24 hours via an IFI-developed GPS-based data collection app and tablet, providing fishing and fish locations, angling information, measurements and photographic evidence of each hooked bluefin tuna.

In 2021, the Tuna CHART programme authorised 22 charter skippers from Donegal, Sligo, Galway, Clare, Cork and Waterford to operate a scientific fishery, in which anglers participated fully, to catch, tag and release 242 Atlantic bluefin tuna. These professional skippers were trained to tag, measure and record bluefin data.

- 2021 was a relatively poor year compared to the highly successful year of 2020. However, the Irish north west coast continued to act as an important site for Atlantic bluefin tuna encounters, with small numbers of bluefin recorded along the west and south Irish coasts also.
- The south coast is highly changeable in terms of catch rates: the number of bluefin tagged ranged from 3 in 2019 to 170 in 2020 and 23 in 2021. Notably, bluefin were found within close proximity of the coast, as has been recorded consistently in Donegal Bay since the programme started. Along the west coast few sightings were reported and, in combination with low fishing effort, only one bluefin was tagged in 2021. The west coast

is the least productive region for bluefin encounters, with fewer than five bluefin tagged annually to date.

- The average length of the bluefin encountered was 203cm, with the largest measuring 275cm and weighing 395kg (872lb). No mortalities were recorded over the period. With an emphasis on post-release survival and no mortalities where possible, Tuna CHART aims to maximise the sustainable nature of the bluefin tuna angling resource.
- A new innovation in 2021 was the development of an online hub in ArcGIS to report
 results back to charter skippers. Charter skippers were able to login individually and
 access maps and summary information on their own data, including on fishing locations,
 tagging locations, size of their fish etc. While this gave them easy access to their data, it
 also protected their data from other users. Additionally, the hub was a refinement to Tuna
 CHART as it reduced the requirement for summary emails to be sent to skippers by IFI
 staff as they had instant access to the data they submitted to the programme.
- A report on the 2021 programme is undergoing revisions and is due for release in Q2 of 2022.

A report on the 2020 programme for ICCAT was produced in August 2021 in collaboration with the Marine Institute and all the partners on the programme.

Marine Sport Fish Tagging Programme

The Marine Sport Fish Tagging programme is an efficient, cost-effective long-term collaborative citizen science-based programme between IFI Business Development and IFI Research, sea anglers and charter skippers. Sea anglers and charter skippers tag elasmobranchs caught on rod and line on behalf of IFI. Without the collaborative nature of this programme, IFI would not be able to report on elasmobranchs. 19% of Irish Elasmobranchs are listed as either Critically Endangered (10%) or Endangered (9%). The Marine Sport Fish tagging programme provides historical and current insight into the distribution and size of 15 species of elasmobranch.

This low-cost programme provides a repository for approximately 40,000 tagging events for multiple elasmobranch species since the 1970s. These valuable long-term data are used periodically to support species assessments and scientific publications.

This tagging programme also provides data on the inshore distribution of elasmobranchs and maintains an important tagging database. This information is not available from commercial fishing reports and addresses a key knowledge gap regarding the inshore distribution and habitat use of this group in Irish waters.

An Elasmobranch Good Handling Guide was developed in 2021 to advise anglers on best-practice techniques and equipment to maximise elasmobranch post-release survival. This output is due for release in early 2022.

In the absence of commercial fishing data, as key stakeholders, anglers play a critical, active and necessary role in the stewardship of bass through collection of bass scale and length data, angling effort logbooks and participation in a conventional tagging programme. Anglers and charter skippers, as stakeholders, play a critical and active role in tagging elasmobranchs, thereby

contributing to stewardship. Without the collaborative nature of this programme, IFI would not be able to report on elasmobranchs.

Irish Marine Recreational Fisheries Survey (IMREC)

As an island with just over 3,000km of coastline and a rich marine life, Ireland has a sea angling resource that is very highly regarded internationally. This resource offers an important recreational activity and provides social and economic benefits across rural and coastal communities. But we need to know more about this resource, so that we have a solid basis for scientific analyses of fisheries. To meet this requirement, Inland Fisheries Ireland developed the Irish Marine Recreational Fisheries (IMREC) survey in 2019, a programme that is designed to facilitate the gathering of information about recreational fish catches at sea and along the coast.

2021 was concluded with the completion of a wide-ranging pilot study that produced preliminary estimates of Irish marine recreational angling participation and multispecies catch rates for the first time. Sea angling effort data was collected through two independent surveys conducted by the Central Statistics Office and Ipsos MRBI. When combined, these data estimated that around 250,000 Irish residents consider themselves sea anglers. Of these, 76% fish from the shore, 55% fish from a small boat and 30% from a charter boat, even if only occasionally. Irish shore anglers take about eight trips per year, while small boat anglers take around seven trips per year. IFI staff carried out over 220 separate on-site angler interviews around the coastline to estimate catch rates. Staff used digital survey data collection tools to efficiently record and upload survey data to a centralised geodatabase. Analysis found that mackerel followed by pollack were the most frequently caught species for both shore and small boat anglers. Apart from mackerel and pollack, the majority of species caught during sea angling trips were released.

As a result of the pilot study, several lessons were also learned on how to improve sampling efficiency and data collection for sampling programmes planned for 2022 and beyond. This study has provided a solid platform to continue to refine catch estimates of marine recreational fishing (MRF) for input into the next cycle of the data collection framework (DCF) under the new European Maritime and Fisheries Fund (EMFF), of which routine data collection on marine recreational fisheries is a component (Regulation (EU) 2021/1139 of the European Parliament and of the Council, Commission Delegated Decision (EU) 2021/1167 and Commission Implementing Decision (EU) 2021/1168).

The information gathered through IMREC will help stakeholders to manage the fisheries resource and recreational angling. It will support the protection of the resource for both sea anglers and for those who provide the services that support sea angling and provide jobs in communities around the coast.

Estuarine fish surveys (including WFD)

Estuaries are dynamic systems, where temperature, salinity, turbidity, depth, and flow all change daily in response to the tides. This makes estuaries highly productive habitats where they provide critical habitat to a variety of species, especially juvenile fish. As ecosystems, estuaries are under threat from human activities such as pollution, habitat degradation, urbanisation and much more. To protect and monitor these habitats the European Union introduced the Water Framework Directive (WFD) (2000/60/EC) as part of a standardised approach for all Member States to manage their water resources and to protect aquatic ecosystems in 2000.

Estuarine surveys aim to classify the status (high, good, moderate, poor or bad) of selected Irish transitional waters (i.e., estuaries) and coastal waters to meet IFI's environmental governance requirement under WFD. Once the status of selected water bodies is determined, ongoing monitoring helps to track the effectiveness of measures needed to clean up water bodies and achieve 'good' status, thus protecting the fish and their habitat, while ensuring the sustainability of these valuable ecosystems. The broad-based sampling programme is designed to determine fish species presence and distribution in Irish estuaries with findings reported to the EPA, our main stakeholder. Sampling is undertaken on a rolling basis and results from 2021 can be summarised as follows:

- Five waterbodies were surveyed in autumn 2021, including: Drongawn Lough, Castlemaine Harbour, Limerick Docks, Lower Shannon estuary and Lough Gill.
- COVID-19 restrictions slightly reduced the sampling effort with fyke nets, one of the three elements for composite sampling. Traditionally, a chain of three nets is set at each sampling location. Due to social distancing and manual handling requirements, this was reduced to two nets a set per sampling site.
- Over the course of the survey, 124 samplings using nets (seine, trawl and fyke netting) were conducted. A total of 11,245 individual fish were captured, counted, and identified to species level prior to release. Forty-six different fish species were encountered over the course of the sampling programme.
- Of all sites surveyed, species richness was lowest in Lough Gill and Limerick Docks. The lack of habitat diversity, small size, and urbanisation in the case of Limerick Docks contribute to its low species richness. Conversely, the lower Shannon Estuary and Castlemaine Harbour had the highest species richness with 33 and 28 species recorded respectively. These estuaries contain complex habitats and variability which plays a significant role in promoting abundance, diversity, and persistence of species, including several important angling species.



Image: Thornback ray in the Lower Shannon estuary, September 2021

Hydromorphology and habitat restoration

The Water Framework Directive (WFD) has identified connectivity as a key factor in regard to the natural functioning of rivers. Connectivity is one component of river hydromorphology, a composite topic that deals with the physical habitat factors that underpin ecology – the quantity of water, the condition of the instream and riparian habitat and the connectivity of the channels both laterally and longitudinally. The themes in hydromorphology are consistent with Inland Fisheries Ireland's overall aims to conserve species and their habitats, as well as the aims of the Habitats Directive with regard to the various life stages of migratory fish species travelling between the sea and fresh water, listed in Annex II of the Directive.

Three signifcant hydromorphology projects, all with shared strands, were continued during 2021:

- The Interreg cross-border CatchmentCARE project
- The Environmental River Enhancement Programme (EREP) study with OPW
- The National Barriers Programme, funded by the Department of Housing, Local Government and Heritage.

CatchmentCARE

The CatchmentCARE project (2017-2022) was commenced in late 2017. Its focus is on improvement of water quality in three cross-border catchments: the Finn, Arney and Blackwater. The project has a series of catchment 'actions' platforms to examine and improve water quality (as defined by the WFD) and these include point source enrichment, diffuse source enrichment, hydromorphology measures (instream and riparian) and groundwater issues. There is a strong scientific component as well as a community engagement one.

The IFI team consists of a Research Officer for the Arney and some projects in the Blackwater, a Catchment Project Officer for the Arney and an Administrative Assistant. Within the project, IFI took the lead in the scoping work package and a report is available on the <u>CatchmentCARE website</u> detailing the status of the three catchments, highlighting the existing pressures and recommendations on remediation. IFI were tasked with delivering instream and riparian works in the Arney catchment.

The team have created plans for water quality improvement in selected waterbodies through the exclusion of livestock from water courses and the creation of buffer zones. To date, three projects have been completed accumulating in 12km of river protected by fencing with alternative drinking sources supplied to the farmers including pasture pumps, solar pumps and rainwater harvesting tanks. A range of innovative surveys are taking place to monitor the effects of these restoration works on the habitat and fish species present including mapping using drones, detailed cross sections using satellite technology to ensure accuracy of locations along with electrofishing surveys. A barrier easement project has been progressed in the Blackwater catchment with the production of a hydrological options report for Emyvale Weir, an integral step in such projects.

Several Community Incentive Schemes have been carried out by Lisa Doyle, our Catchment Project Officer in the Arney. These include clean-up initiatives along the river and a study on the movement of water, using specialised dye through the extensive cave network underlying the Arney catchment. An underground connection has been found between the Erne and the Shannon Pot drawing into doubt the real source of the River Shannon. Acoustic monitoring is taking place to record the sounds of wildlife within the Arney catchments with a video in preparation. A number of information panels have been erected providing information on local wildlife including crayfish, highlighting the dangers posed by the crayfish plague with relevant biosecurity information.

Environmental River Enhancement Programme

The Environmental River Enhancement Programme (EREP) is a long-term, multi-faceted project run in collaboration with the Office of Public Works (OPW). It applies WFD criteria to drained/channelised rivers in order to examine the status of the fish community and hydromorphology (physical habitat and connectivity). The aim is to generate baseline datasets for these drained catchments, as well as making recommendations on appropriate management strategies to retain and improve physical habitat.

During 2021, the programme conducted a catchment-wide survey examining the fish community, physical habitat and potential barriers to fish migration in the Kells Blackwater catchment, part of the Boyne system across counties Cavan and Meath. The EREP also revisits channels where studies were undertaken previously in order to build up long-term datasets on fish and habitat. A repeat survey was conducted on the Dee River, where capital works had been undertaken by the OPW and IFI in 2009, comprising fencing to exclude livestock, bank protection (both hard and soft-engineered), and reprofiling of the channel bed. Engagement with the OPW is key to the successful delivery of the programme. Various opportunities were used during 2021 to promote EREP objectives with both the OPW environment and drainage divisions. Activities included disseminating results of scientific studies, walkovers in the field to promote instream and riparian management measures consistent with best practice, along with an online training workshop delivered to engineers.

National Barriers Programme

The National Barriers Programme (NBP) (2018-2021), funded by the Department of Housing, Local Government and Heritage, was in its final year in 2021. Completed project tasks include the delivery of a national database of potential barriers to fish passage (73,092 structures), the development of a Barrier Assessment and Screening (I-BAST) tool that collects on-site data and immediately uploads this to a cloud-based server, and initial prioritisation of barriers for management in the third WFD

cycle. The NBP partnered with the OPW in the delivery of 'Design Guidance for Fish Passage on Small Barriers', a document outlining mitigation guidelines for small barriers to connectivity. The NBP is also delivering a final report outlining current and future barrier-related issues, including legislative, mitigation, fish screening, abstraction and climate change.

Applying the SNIFFER (WFD111 Phase 2a Course resolution rapid-assessment methodology to assess obstacles to fish migration 2010), a more detailed barrier assessment, the NBP has assessed 207 significant barriers to fish passage focusing on SAC catchments (Nore, Suir, Barrow, Boyne, Munster Blackwater, Liffey and Slaney). Twenty-eight SNIFFER reports on individual structures have been issued to assist in planning permission or at the request of IFI Operations. SNIFFER catchment reports assessing multiple structures have also been issued for the Rivers Deel in Limerick and Dodder in Dublin. SNIFFER catchment reports requested by IFI operations are also outstanding (surveys done and awaiting writeup) for the Rivers Liffey, Boyne and Brosna.

The programme continually integrates barrier data from IFI RBD colleagues, from the AMBER, EREP and Eel Monitoring Programme and from other state bodies as data becomes available. During 2020, the project team continued to roll out a programme of training, facilitating the involvement of IFI RBD teams in barrier surveys. These RBD, Research and NBP teams have undertaken extensive barrier assessment programmes evaluating thousands of instream structures (see diagram below). In January 2022, IFI had surveyed 25,868 instream structures using the I-BAST application and remote surveying and, of these, 6,321 structures have been identified as barriers to fish passage.

The NBP has also secured funding from the Department of Housing, Local Government and Heritage to extend the programme for a further four years.

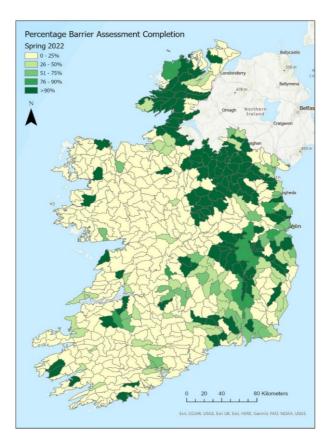


Image: Percentage barrier assessment completion in the 583 WFD sub-catchments 15 February 2022

Species of conservation concern

Inland Fisheries Ireland's Habitats team is focused primarily on meeting Ireland's obligations to monitor and report on the status of the fish species listed under the EU's Habitats Directive. The team also contributes to international projects including DiaDES.

DiadES

Under the Interreg <u>DiadES project</u>, an extensive angler survey was undertaken in St Mullins on the River Barrow during May 2020. At this time, filming and interviews were captured with local businesses, anglers and IFI research staff. These videos have been collated with footage from partner countries and have been published on the <u>DiadES YouTube channel</u>. Work progressed to age shad scales to complement analysis on the microchemistry and hybridisation studies undertaken under work package six of the programme. The DiadES and Habitats Directive team joined forces to undertake environmental DNA sampling around the spawning location of twaite shad at St Mullins. This investigative work will help us understand the spawning behaviour of shad and the environmental conditions that occur during this period. Case study reports on ecosystem services of diadromous species were completed in collaboration with economist partners in DiadES with extensive socio-economic information compiled for Waterford Harbour. We continued to gather information on the distribution of diadromous species at sea and a report on bycatch of diadromous species was prepared by examining the information from the Observers at Sea Programme.

EVOLAMP

EVOLAMP is a genetics-based project, led by colleagues from the University of Évora in Portugal and funded by the Portuguese Foundation for Science and Technology. The objective of the project is to

investigate the molecular basis of alternative life histories in lampreys, through analysis of different life stages of two closely related species with distinct life cycles, the non-parasitic and freshwater resident European brook lamprey and the parasitic and migratory European river lamprey. The Habitats team have been collaborating on the project since 2019 through the sampling and collection of the various life-history stages of these two species. The project was due to finish in 2021 but has received funding for another year. Further sampling was carried out in 2021 and tissue samples from adult and juvenile river lamprey were provided for genetic analysis.

Habitats Directive (HD) and Red Data Book (RDB) Fish Programme

The EU Habitats Directive (Council Directive 92/43/EEC) requires member states to monitor and report on species listed in Annexes to the Directive. Surveillance monitoring is required under Article 11 of the Directive and Article 17 requires reporting on the conservation status of species on a six-year rolling cycle. Inland Fisheries Ireland, on behalf of the Department of the Environment, Climate and Communications (DECC), is responsible for reporting on the Annex II/V fish species. The Annual Reports of the Habitats Directive and Red Data Book team's surveys and investigations are available on IFI's website.

The conservation status of river lamprey is currently unknown and spawning surveys to investigate its distribution in SAC and non-SAC rivers are an important focus of the current reporting cycle (2019-2024). These surveys continued in 2021 and a number of spawning locations were recorded on the Suir, Nore, Slaney, Avoca, Dee and Owenavorragh Rivers. The rollout of the revised larval lamprey programme continued and index sites within 10 catchments and five RBDs were surveyed to provide data for assessing trends in the population size of brook lamprey. Sea lamprey nest counts were carried out at spawning hotspots on SAC rivers to assess the numbers of adult spawners entering Irish rivers annually and the impact of artificial barriers. Egg count surveys and eDNA sampling were conducted over an 11-week period from April to July to investigate twaite shad spawning behaviour and the impact of a major weir at St Mullins on the River Barrow. The egg count surveys have revealed earlier-than-expected spawning events and continuous spawning over a protracted period. Further survey work is planned for St Mullins next year and it is expected that results for the eDNA analysis will be available in 2022. Habitats Directive project personnel also joined colleagues on the Bass Programme for netting and trawling surveys of estuaries in the south east. While juvenile bass is the target species, these surveys provide information on recruitment of shad and smelt through the capture of young-of-year fish.

Salmonid projects

Inland Fisheries Ireland's researchers are involved in a number of different projects relating to salmon and sea trout. Our work centres on adding to our knowledge about salmon and trout, so that we can protect and conserve stocks. In 2021, our work involved:

- Providing the information on which annual salmon management advice is based
- Managing Ireland's National Salmonid Index Catchment (NSIC) on the river Erriff
- Investigating the migration, distribution, habitat usage and survival of sea trout and salmon smolts on the west coast Salmonid West Project, including SMOLTRACK
- Implementing the Sea Trout Assessment Monitoring Programme (STAMP) at Lough Currane in Co. Kerry

- Building capacity for environmental monitoring and management of marine protected areas COMPASS project
- Brown trout research

National salmon management advice/Conservation Limit attainment

The annual scientific advice on the status of salmon stocks and associated documentation was produced by the independent Technical Expert Group on Salmon (TEGOS). To support the provision of scientific advice for the 2021 salmon season, Catchment-Wide Electrofishing (CWEF) was completed in 31 catchments or sub-catchments to assess abundance and distribution of salmon fry. This index acts as a proxy for adult salmon presence in rivers and in many systems these results provide the only data on salmon spawning in these catchments. A total of 888 sites were visited in 2021. In the first 15 years of this programme (2007-2021) a total of 541 catchment surveys in 159 catchments or sub-catchments have been undertaken, comprising 12,259 individual site surveys. In relation to scientific advice for 2021, based on these CWEF data, 11 rivers were predicted to be under their Conservation Limit (CL), but with a high average catchment-wide salmon fry index (that is, \geq 17 fish/five minutes over the 2007-2021 period), were recommended for opening on a catch-and-release angling basis.

A comprehensive series of reports on the IFI salmon management programme is available on the <u>IFI</u> website.

Based on the scientific advice provided by the TEGOS, IFI management determined that during 2022, of the 144 rivers nationally: 48 rivers would be open for a harvest fishery, 32 rivers would open for catch-and-release angling and 64 rivers would be closed. Of the 16 spring salmon rivers: 11 will be open, five open for catch-and-release angling and one closed in 2022.

The National Salmonid Index Catchment (NSIC), River Erriff catchment

The Erriff is the national salmonid index catchment for salmon and sea trout populations in Ireland. The topography of the Erriff catchment, which combines a riverine and a lake-fed tributary subcatchment, is representative of typical migratory salmonid habitat in Ireland.

Since 1985, a long-term sea trout monitoring programme has operated on the Tawnyard Lake subcatchment of the NSIC. From March through to June 2021, a total of 1,500 sea trout smolts (juveniles) and 74 sea trout kelts (spawned adults) were recorded in the downstream trap situated near the lake outflow; monitoring of returning adult salmon and sea trout was carried out and a total of 1,754 salmon and 1,032 sea trout ascended through the trap/fish counter located beside Aasleagh Falls during 2021.

The NSIC is critically important in monitoring the Erriff sea trout population currently and into the future and will allow assessment of the impact of environmental factors, including sea lice levels, on the sea trout stock. In 2014, investment was made to enhance its research and monitoring capacities. As part of this investment, an array of hydro-acoustic receivers was installed in Killary Harbour to monitor sea trout and salmon movement and residency in the marine environment. This array is central to an ongoing programme to investigate the marine phase of salmonids and is reported in the Salmonid West Project.

A new project using Passive Integrated Transponder (PIT) tag technology began in spring 2016 to determine sea trout and salmon marine survival back to the Erriff. Salmon smolts have been PIT tagged annually over the 2016-2021 period and marine survival of these tagged cohorts has ranged from 1.5-3.8%. To date, the vast majority of returning tagged fish are as one-sea-winter (1SW) grilse which reflects the predominance of this stock component in the river.

Year	Species	No. of fish tagged	Mean (cm)	SD (cm)	Min (cm)	Max (cm)
2016	Salmon	1,022	12.5	1.5	8.7	18
2016	Sea trout	667	20.2	1.9	14	26.2
2017	Salmon	553	12.8	1.6	10	21.6
2017	Sea trout	590	19.9	1.9	15	26
2018	Salmon	893	12.8	1.3	10	18.2
2018	Sea trout	548	19.8	1.9	13.5	25.9
2019	Salmon	912	12.3	1.1	10	19.2
2019	Sea trout	699	18.7	1.9	10.9	23.9
2020	Salmon	395	14	1.2	11.2	18.7
2020	Sea trout	620	19.6	1.4	13.7	24
2021	Salmon	1,302	12.4	1.2	10	17.6
2021	Sea trout	579	19.7	1.9	12.5	25.5

Table: Salmon and sea trout smolts PIT tagged in the NSIC since 2016

pecies	No. of fish tagged	Total no. returned	% Marine survival	% 0 SW	% 1SW	% 2SW	% Repeat spawners
Ilmon	1022	36	3.5	0	83.3	16.7	2.7
Imon	553	11	2.0	0	100	0	0
lmon	893	34	3.8	0	94.1	5.9	0
Imon	912	29	3.2	0	89.7	10.3	*
lmon	395	6	1.5*	0	100	*	*
ea trout	667	115	17.2	100	0	0	3.5
ea trout	590	29	4.9	100	0	0	6.9
ea trout	548	132	24.1	96.96	2.27	0.76	8.3
ea trout	699	20	2.9*	90	10	0	35*
ea trout	620	64	10.3*	84.4	15.6	*	17.2*
ea trout	579	82	14.2*	100*	*	*	*
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*potential for additional and repeat returns in year 2022+

Table: PIT tag detections from returning adult salmon and seat trout tagged in the NSIC

The marine survival of Erriff sea trout based on PIT tagging ranges from 2.9% to 24.1% over the 2016-2021 period. Fish predominantly return as finnock (i.e., in the same year as they migrated as smolts) with 1SW maidens only a minor to moderate stock component in the time series to date (2.3% to 15.6%). Repeat spawners are a notable but variable feature of the Erriff sea trout stock (8.3% to 35%). Sea trout marine survival is strongly influenced by salmon farming activity in Killary Harbour with much reduced survival when large grower fish are present.

The Erriff weather station continued its operation throughout 2021. The station was first installed in late 2019 as part of an IFI Climate Change project. In addition, a catchment-wide temperature monitoring network was expanded and maintained to further support this research initiative.

Salmonid West Project (including SMOLTRACK)

In 2021, two telemetry projects, grouped under the Salmonid West Project umbrella, were undertaken in the Erriff catchment to investigate migration, distribution, habitat usage and survival of sea trout and salmon smolts in the marine and freshwater environment on the west coast of Ireland and to determine factors that may influence migration and survival. IFI's research programme focuses primarily on sea trout while the EMFF funded <u>SMOLTRACK</u> project is focused on salmon. The studies are conducted on the River Erriff, IFI's National Salmonid Index Catchment (NSIC), to make efficient use of the NSIC's infrastructure. Both studies use innovative telemetry technology to track fish migration in the River Erriff, Killary Harbour and the surrounding coastal waters.

The overall goal is to protect, maintain and enhance salmonid populations by tracking their movement through a variety of habitats. Providing these data allow for development of evidencebased management measures designed to improve overall survival. The NASCO-managed SMOLTRACK project actively engages with project partners/stakeholders from Denmark, Finland, Sweden, Portugal, Spain, Northern Ireland and England.

Highlights of the Salmonid West Project

- 60 sea trout smolts and 15 sea trout kelts acoustically tagged at Tawnyard trap. Survival was low as the salmon farms in Killary Harbour were in production and sea lice levels were elevated. Survival (fish that made a marine migration and returned to the River Erriff) for sea trout smolts and kelts was 8% and 13% respectively in 2021.
- Under SMOLTRACK, a total of 100 salmon smolts were acoustically tagged at Tawnyard trap in a truck-and-transport experiment to test viability of transporting smolts around a predation bottleneck identified in prior tagging studies. Half the smolts were transported around the bottleneck while the half – a control group – were allowed to navigate through the bottleneck. Survival was over three times higher for the transported groups. However, survival was low for both groups, with 18% and 6% of the transported and control group respectively successfully migrating out of Killary Harbour.
- Climate change has been flagged as a major threat to the long-term survival of salmon. Yet, measured data on the thermal environment experienced by migrants, initially in freshwater, and subsequently in transitional and marine/oceanic waters, are limited. To monitor the thermal experience of smolts, some 100 were tagged with data storage tags (DSTs) on the River Erriff. These tags will record temperature at regular intervals for the duration of their migration.



Image: DST and PIT tag implanted in salmon smolts

Currane STAMP Project

The Currane Sea Trout Assessment and Monitoring Plan (STAMP) was implemented in 2019 to evaluate the current status of sea trout in the Waterville area of Co. Kerry. The overall objective of the STAMP was to apply a suite of ecological monitoring tools to answer specific questions related to concerning declines in adult sea trout stocks in the area. A core aim of the STAMP was to initiate an acoustic telemetry monitoring programme which would shed light on the spatial behaviour, migration strategies and rate of marine survivorship of sea trout smolts as they undergo their initial transit to sea. Acoustic monitoring of sea trout smolts commenced in April 2019, when 50 fish were implanted with acoustic tags, whilst in May 2020, an additional 59 sea trout smolts were tagged. Continuation of the acoustic monitoring programme in April and May 2021 resulted in 133 sea trout smolts being tagged. Fish traps were installed at the outflow of Lough Derriana and Butler's Pool in spring to assist in sea trout tagging and to provide additional ecological data pertaining to both sea trout and salmon smolts. The existing marine acoustic receiver array was also expanded to highlight sea trout dispersal ranges outside of Ballinskelligs Bay and to determine whether these movements overlap with an operational salmon farm in the locality. In 2021, IFI collaborated with the Marine Institute to conduct health assessments in sea trout smolts in May and these assessments were repeated in returning finnock in July. The goal of this health screening was to identify if Currane sea trout are exposed to freshwater or marine pathogens. In August and September, electrofishing surveys were repeated at all 35 long-established monitoring sites in the Currane to determine annual trends in juvenile salmonid populations.

The extensive dataset, including environmental, fisheries and biological data, collected over the three-year term of the project, are being analysed for publication in a detailed report in 2022.



Images: Screw trap in operation at Butler's Pool (left) Salmon smolts released from screw trap at Butler's Pool (right)

COMPASS project

COMPASS – Collaborative Oceanography and Monitoring for Protected Areas and Species – is a transnational project focusing on the coastal seas between Ireland and western Scotland. Inland Fisheries Ireland is working with Agri-Food and Biosciences Institute (AFBI) on the salmonid work package. To date, over 450 sea trout and salmon, mainly at smolt stage from several rivers (Boyne, Castletown and Shimna), have been tagged with acoustic transmitters under the project. The main objectives of this work are to understand habitat utilisation and migration behaviour of salmonids in the near shore marine environment identifying important habitats for sea trout. This work also aims to identify routes or pathways of salmon smolts as they migrate from fresh water into the marine environment.

- Despite COVID-19 restrictions, 86 salmon smolt were tagged in the Boyne in May. Acoustic receiver arrays in the lower reaches of the Boyne and the estuary tracked the movement of smolt to sea entry. Further detections of these fish from an extensive temporary offshore array of 22 receivers, deployed by partners AFBI in March 2021, across the North Channel confirmed the northerly trajectory of salmon smolts once they leave the Boyne.
- Analysis of marine environmental data is being undertaken to identify factors that may influence salmonid movements at sea. Tagged salmon locations and swimming depth in the water column, sea temperature, ebb and flow current/tidal states etc. are being reviewed to investigate factors that may determine smolt migration patterns/behaviour.
- GPS coordinates of pick-ups were used in ArcGIS to track and create maps of sea trout
 movements along the east coast of Ireland between the Boyne system and other receivers
 in Irish Sea. Preliminary findings and maps produced have displayed useful metrics and
 visual interpretations which will accompany final COMPASS project reports. For sea trout,
 data are being explored in ArcGIS using new modelling tools which are being enhanced to
 allow for refined analyses and accessible mapping of habitat usage. Preliminary results
 have shown that sea trout, for example, appear to be mainly confined to inshore habitats,
 often in discrete areas.
- With salmon numbers generally declining across the natural distribution of the species, and generally reduced survival in the marine phase, more information on oceanic migration, routes and early post-smolt survival is vital to the conservation of this iconic species. Salmon smolts were tagged and tracked as they migrated to oceanic feeding

grounds. Early findings indicate that these fish take the shortest route to the deep waters of the central Irish Sea, possibly to avail of the prevailing currents which are likely to assist their journey northwards to the feeding grounds in the north east Atlantic.

- The fundamental migration insights gained will help policymakers direct management actions. It is clear that collaborative research efforts, nationally and internationally, are needed to help better understand the complexities of managing a moving target migrating through international waters.
- Protection of migrants within identified migration corridors is necessary and may require innovative tools to effect conservation.

Brown trout research

Liffey project

Angling clubs across the Liffey catchment have noted and commented on apparent decline in brown trout catches over the last few years. Several requests have been made to address their concerns and determine the current state of Liffey brown trout populations. IFI has commenced a review of all available data for the catchment. A number of fish stock surveys have been conducted (1986-2019), with partial and full spatial coverage. Initial investigations in 2021 focused on a review of:

- Brown trout abundance, e.g. records from electrofishing, redd counts and angling returns
- Genetic structure in studied brown trout populations
- WFD ecological status and fish status, including presentation of brown trout data
- Anthropogenic pressures: angling, water quality, hydromorphology and urban development.

Once this review was completed in February 2021, the research group collaborated with the ERBD to conduct electrofishing along the Liffey main channel and a small number of tributary sites to aid comparison with previous survey work.

The Liffey brown trout fisheries have several aspects that make them good candidates for stakeholder collaboration and citizen science. Notably, management of Irish brown trout is limited by the absence of catch and effort data, for example, creel sampling. Such Catch Per Unit Effort (CPUE) data could provide simple, ongoing insight into the state of exploited populations, and allow a more rapid response by IFI when anglers raise concerns about local fisheries. Collection of creel data requires a healthy relationship among stakeholder groups, especially anglers and scientists. Current open communication between IFI and Liffey angling groups suggests potential for developing an ongoing interaction.

Innovation

IFI is developing an R package (Shiny app) that provides an accessible user interface for using existing lake survey data to support data-limited single-species stock assessment.

Management of many exploited marine fish stocks is typically based on stock assessments that model how fishing pressure and target population state change over time. IFI has made world-leading advances in size-based assessment of data-limited inland fish stocks. These methods use measured fish population size-distributions to quantify fishing pressure and the health of a stock with reference to an unexploited population.

The river and lake monitoring programme at IFI conducts an annual programme of fish community surveys. These surveys provide standardised catch-per-unit-effort (CPUE) and population size distribution for fish species including brown trout. Previous work at IFI has shown that these data can support length-based stock assessment for populations where other data are limited or unavailable. In 2021, IFI made major progress on developing a Shiny app to provide an accessible tool for researchers to quickly assess potential fishing mortality effects on exploited lake populations surveyed as part of standardised fish surveys. This tool will help support management of wild brown trout in Irish lakes.

Brown trout genetics

IFI, Queens University Belfast (QUB) and several local angling associations have collaborated in collecting scale samples and conducting analyses to specify genetic structure in the brown trout populations of several lake and river catchments. Two reports on this research were completed during 2021. There is subsequent potential for integrating the genetic data at national scale for landscape resolution studies of genetic structure, and possibly investigating environmental drivers of apparent patterns. Work on brown trout genetics may provide a route to complementary approaches using emerging eDNA technology.

National Eel Monitoring Programme (EMP)

In 2021 the National Eel Monitoring Programme (EMP) contributed to the national report on the implementation of the National Eel Management plan and responded to the International Council for the Exploration of the Sea (ICES) data call as requested by the EU Commission. The next reporting cycle to the EU is due in 2024 and covers the period 2021-2023.

The EMP team has been monitoring glass eels in the Boyne Estuary since 2018 between the months of January to June (see images below). 2021 was a poor year with a very low number of glass eels captured, when compared to catches from 2018 and 2019. Continued monitoring over the next few years will be necessary to see if the catches go back up. Additional recruitment monitoring is undertaken by regional IFI staff in key locations: Corrib, Maigue, Feale and Inagh. These are long-term index monitoring sites. While the Corrib trap had a good year, generally the poor recruitment in Ireland was matched with a similar pattern across Europe. The latest ICES advice (2021) reports recruitment at 5.4% (provisional) for 'elsewhere in Europe' series and 0.6% (provisional) for the 'North Sea' series (both down from final 2020 values of 7.1% and 0.9% respectively). To increase public awareness of the status of the European eel, a citizen science elver monitoring programme was initiated with the NoreVision River Trust. Despite the large effort undertaken, low numbers were recorded and further highlighted a general decline in recruitment. As part of this work, a talk and demonstration were organised to the citizen science team and local school children (see images below).



Images: (Left) An early pigmentation phase glass eel on a measuring board and (right) the refugee glass eel trap pictured with Beaulieu sluice in background



Images: (Left) Talk and demonstration given to NoreVision citizen scientists and local school children and, right) citizen scientist looking for elver at one of the selected sites

A repeat electrofishing survey for yellow eels was undertaken on the Kells Blackwater Eel Index catchment in 2021. Thirty-one sites were fished and only four eels were captured at two of the sites. This compares with 93 eels caught when the catchment was last surveyed in 2014. Research carried out by the team in previous years shows a good population of eels in Lough Ramor in the Kells Blackwater catchment but this study shows the absence of eels in riverine habitat. The EMP team also carried out River Hydromorphology Assessment Technique (RHAT) surveys as part of the yellow eel monitoring survey. A total of 27 out of the 31 sites were RHAT surveyed using the spot check methodology. The results of these surveys showed that the majority of the sites fell into a 'moderate' or 'good' status (37% and 52% of the total sites respectively). One site was reported as having 'high' status and two sites were noted as being 'poor' in terms of the hydromorphological assessment of available habitat. There were no 'bad' category sites noted in the results. These RHAT surveys effectively removed the possibility of poor habitat being responsible for the under-utilisation of sites by eels.

To address the management objective in relation to barriers and their impact on eels, the team, in collaboration with the NBP, carried out an assessment of potential barriers in the Broadmeadow catchment in 2021. A total of 637 sites were assessed; of these 21 were recorded as barriers and were marked for further assessment, the remaining 616 were either not barriers to fish migration (461) or were marked for further assessment at a later date (155).

Silver eel fishing was carried out in the Barrow and Fane catchments in 2021. A total catch of 550kg (1,203 eels) was caught over 22 nights on the Fane with 196kg (1,200 eels) caught on the Barrow over 20 nights.

As part of the final scope of the scientific eel fishery in 2020, an investigation into the use of eDNA to supplement traditional methods was implemented and this was continued in 2021. As the eel population has decreased in certain habitats, it is important to capture whether the eels are absent or are present in such low numbers that they are not recorded in the fyke nets or electrofishing programmes. This study has multiple aims in both yellow and silver eel sampling. The yellow eel studies focus on:

- Investigating the concentration of eDNA in two eel lakes (Lough Muckno and Lough Owel) and the variances in eel eDNA concentration throughout the year
- Confirming the presence or absence of eels from the upper reaches of the River Barrow as indicated in previous netting and electrofishing surveys and comparing this with eel distribution in the lower reaches of the catchment

The silver eel study aims to investigate:

• The potential correlation between eDNA signatures for eels in water samples and the net catches at the Fane and Barrow Fisheries. The water samples were taken from locations upstream of the fishing points.

This work could be developed into a supporting methodology for the assessment of the silver eel escapement. The results will be reported once all samples from 2020 and 2021 are processed and analysed.

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3. Sustainably developing our angling resource

Ireland's inland fisheries and sea angling resource supports a viable, thriving, and sustainable angling industry in Ireland; worth close to €1 billion to the economy. Supporting this, Inland Fisheries Ireland has a wide statutory remit, encompassing a diverse range of projects and initiatives which involve multiple stakeholders. Recognising wider government policies, frameworks and initiatives in areas such as climate action, biodiversity, tourism, rural development, health and education, the Business Development team played a central role in the delivery and communication of these projects and initiatives in 2021.

The functional areas of delivery for Business Development are: fisheries development, promotion and marketing, education and outreach, salmon management and communications. The following pages outline the key achievements and other items of note for 2021.



Fisheries Development

The Projects Management Office (PMO) is responsible for the promotion and administration of several funding schemes operated by Inland Fisheries Ireland which enable and deliver physical fisheries development projects. The PMO is also charged with supporting staff in their development and implementation of projects using a standard approach to planning and execution.

Key 2021 achievements

- The collaborative National Habitats and Conservation Programme effort yielded 34km of river habitat maintenance, 21km of instream habitat enhancement and 20km of previously inaccessible river habitats were opened for salmonids and lamprey.
- The Salmon and Sea Trout Rehabilitation, Conservation and Protection Fund awarded a total of €766,566 to 17 applications.
- The Midlands Fishery Fund awarded a total of €41,278 to three applications.
- The first river habitat restoration forum was established as a Community of Practice for internal IFI staff which included staff from the PMO, Research and the River Basin Districts (RBDs), to collaborate and knowledge share on planning and executing appropriate river habitat restoration projects.
- A successful application was made to the Department of Rural and Community Development under the Outdoor Recreation Infrastructure Scheme for the maintenance of angling infrastructure, with €491,317 awarded to IFI.
- Successful application for funding from the Department of Agriculture, Food and the Marine's Farm and Community Biodiversity initiative for spawning and nursery habitats in the Lough Sheelin Catchment. €185,000 was awarded to IFI for a European Innovation Partnership (EIP).

The PMO utilises experience in fisheries management, research, development, engineering, administration and environmental assessment to ensure that projects are delivered in compliance with relevant legislation and internal procedures.

The PMO supports Inland Fisheries Ireland staff in delivering projects that aim to maintain and restore fish habitats. This is done at several different scales. At the macro scale, we work with River Basin Districts (RBDs) and Research and Development to deliver large-scale plans (e.g., the Great Western Lakes and the Corrib Catchment Pilot project). At the site scale, we prepare work breakdown structures with the relevant RBD staff and provide assistance with environmental assessment, plan design, flood risk assessment and planning applications. Lastly, at the micro scale, we provide templates of tender documents for the procurement of construction equipment or templates for planning applications. Some notable projects that were delivered in 2021 are listed below.

The plan for the Great Western Lakes

In Q3 2021, the PMO was tasked with preparing a comprehensive plan that contained a suite of actions to protect, conserve and, where possible, enhance the natural attributes and native biodiversity of the Great Western Lakes. This will, in turn, optimise their potential as sustainable wild brown trout and, in some cases, Atlantic salmon recreational fisheries. The plan set out actions required under the following headings to help to achieve its objectives:

- Stakeholder engagement
- Climate action and biodiversity
- Water quality
- Invasive species
- Stock management
- Habitat restoration and
- Research

The plan was prepared in consultation with the Research and Development team, local RBD staff and the Board of Inland Fisheries Ireland. The plan was presented to the Department of the Environment, Climate and Communications (DECC) in October 2021.

Corrib Catchment Pilot project

The objective of this project was to identify the reaches of rivers in the Lough Corrib catchment that were most in need of habitat rehabilitation. This was to enable Inland Fisheries Ireland to focus its resources on areas that are most important from a habitats perspective and are likely to yield the most favourable outcomes in terms of salmonid stock and biodiversity improvement.

The project identified 40 sites where river habitats were damaged. These 40 sites were then surveyed and prioritised according to which site could yield the best value in terms of habitat improvement for Inland Fisheries Ireland. The need for habitat enhancement works at river sites was prioritised based on the degree to which they had departed from their natural state. RBD staff from several districts were also trained in the assessment technique so that habitat surveys could be carried out on a broad range of sites in a relatively short timeframe.

The output of this project led to a prioritised list of 31 sites where river habitat restoration works will take place between 2021 and 2025. This project took two years to complete and involved input and active collaboration from local staff, Research and Development and associated stakeholders.

Following on from the Corrib Pilot Project, development plans were prepared for the Cloondahamper, Kilroe, the Sinking River and Rosshill sites. Project Supervisors for the Design Process (PSDP) were procured from our framework of Health and Safety consultants for each of these projects. These plans were screened for Appropriate Assessment (AA), and Natura Impact Statements (NIS) were prepared for the Cloondahamper, Sinking River and Rosshill sites using our framework of Environmental Consultants. During 2021, the instream works for the Sinking River, Cloondahamper and Kilroe projects were carried out. Furthermore, Environmental Consultants were procured to deliver the appropriate assessments required for the seven Corrib projects that are planned for 2022.

In 2021, we continued to cooperate with groups with whom we have established Memoranda of Agreement (MOU). In the Lough Sheelin catchment, we worked with the Lough Sheelin Trout Preservation Association (LSTPA) in delivering instream works over 2km in Dromone. Additionally, in partnership with the LSTPA, we secured €185,000 in funding from the Department of Agriculture, Food and the Marine's Farm and Community Biodiversity initiative for a European Innovation Partnership (EIP) to carry out habitat restoration works (spawning and nursery habitats) in the Lough Sheelin Catchment.

In the Clare River catchment, we continue to work with Cairde an Claire. In 2021, we delivered habitat restoration works at the Sinking River and Cloondahamper. We also procured the assessments required for the 2022 Clare River Projects. These are the Suileen, Pollaphuca and the Omaum sites.

River habitat restoration

In 2021, the PMO worked closely with our colleagues in the RBDs to deliver habitat restoration projects. The aim of these projects is to restore river habitats that have been damaged by human activity. These restored habitats provide better spawning and nursery environments for salmonids. The projects include the Drumone project in the Inny catchment and the Deel, the Trimblestown and Hartion's Bridge projects in the Boyne catchment.



Image: Paired deflectors on the River Deel

In addition to assisting our colleagues on projects, we enable the restoration of fish habitats through our active promotion and communication of best practice and environmental governance. In 2021, the PMO established a river habitat restoration forum. The forum was established as a community of practice for staff from the PMO, Research and the RBDs, to collaborate on planning and executing appropriate river habitat restoration projects. The aim is for the forum to meet every six months and to include site visits to demonstrate innovations in habitat restoration. We hope this will spark discussion on best practice and for all parties to share lessons learned.

Appropriate Assessment (AA)

Using our own expertise, and our framework of Environmental Consultants, we were able to assist our colleagues in the RBDs and in Salmon Management to carry out Appropriate Assessment (AA) screenings and Natura Impact Statements (NIS). The scale of activities assessed ranged from the nationwide salmon tagging regulations, to the transplanting of mayfly from Lough Sheelin to Lough Carra. In 2021, we assisted with 24 AA screenings and 14 Natura Impact Statements.

Each of these assessments was referred to the external Environmental Assessor who reviewed them and provided specialised feedback to the author, in order to ensure that Inland Fisheries Ireland could be satisfied that the assessment was adequate.

During 2021, the PMO developed a protocol for how Inland Fisheries Ireland shares its determinations with the public, in relation to Appropriate Assessment (AA).

In 2021, we continued to utilise our Frameworks to fill skills gaps in the delivery of habitat conservation projects. These frameworks include Environmental Specialists, Engineers, Computer Aided Design Specialists and Health and Safety Specialists. These Frameworks can be called upon at short notice to provide services.

National Habitats and Conservation Programme

During 2021, the PMO continued to work with the RBDs to report on the work being carried out on the National Habitats and Conservation Programme. This programme includes all habitat conservation works undertaken by Inland Fisheries Ireland throughout the country. In 2021, the PMO consulted regularly with RBD staff to monitor the progress of the various projects as they were carried out. Through this process the PMO were able to share experiences and examples of best practice from other parts of the country and identify where Frameworks or technical experts could help to complete projects. It also helped identify efficiencies in procurement where similar materials or work were required in different RBDs. During 2021, Inland Fisheries Ireland carried out habitat and conservation work with the following significant outputs, leading to improved spawning and nursery habitats for salmonids:

Key achievements		
45	Environmental reports	
34km	Instream maintenance	
33	Design plans	
21km	Instream rehabilitation	
60km	Spawning habitat opened up	

These outputs have also contributed to improving both habitats and water quality, alongside supplementing Ireland's effort on the national biodiversity plan and building climate resilience into our river systems.

As part of the Habitats and Conservation Programme, ERBD staff worked on the River Dodder Flood Alleviation Scheme, Fisheries Protection and Habitat Rehabilitation Programme with Dublin City Council and the Office of Public Works (OPW) (and third-party experts) through much of 2021, in the section of the River Dodder between Ballsbridge and Beaver Row Weir. Works included the placement of cobble riffle bars across the river, deflectors upstream and downstream of Herbert Park Hotel Bridge, and scour protection works along the haul road. In order to ensure the protection of fish populations throughout the project, water quality monitoring was reported every 15 minutes during the works by contractors; parameters included temperature, pH, dissolved oxygen, turbidity and conductivity.

SERBD staff have been working closely with Carlow County Council on the council's project to remove a major barrier at Brook Lodge Bridge on the Mountain River in Borris, Co. Carlow. The National Parks and Wildlife Service (NPWS) were also involved due to the presence of pearl mussel. IFI contributed €20,000 in match funding, ensuring that the existing old bridge was removed and replaced with a clear span structure. This will improve access for both salmon and trout to approximately 40km of spawning and nursery habitat upstream.



Images: Brook Lodge Bridge pre-works (left) and bridge under construction (right)

Sourcing of funding for habitat restoration

In 2021, on the back of plans and assessments carried out on habitat restoration projects developed with our colleagues in the Shannon RBD, we applied for funding from the Department of Agriculture, Food and the Marine's Farm and Community Biodiversity initiative. We were successful in our application and were granted €185,000 to carry out works that would keep cattle out of important spawning and nursery habitats in the Lough Sheelin catchment.

Salmon and Sea Trout Rehabilitation Conservation and Protection Fund

In 2021, 20 applications for funding were received by the Salmon and Sea Trout Rehabilitation Conservation and Protection Fund (SSTRCPF) with a total value of €939,000. These were reviewed by an evaluation panel, and it was recommended that funding totalling €766,566 be awarded to 17 of the projects. This was a significant increase in funding awarded, as the previous year there were 10 applications for funding, totalling €150,000.

During 2021, the PMO engaged with grantees and paid out €263,837 for the completion of four SSTRCPF projects.

Midland Fisheries Fund

In 2021, three applications for funding were received by Midland Fisheries Fund (MFF) with a total value of €41,278. These were reviewed by an evaluation panel and it was recommended that the requested funding be awarded to the three projects.



Collaborating with other agencies

In 2021, we continued to meet with the OPW on a monthly basis to plan for habitat restoration projects on drained channels. These works are delivered in collaboration with the OPW, which typically provides the plant and labour to deliver the projects. Inland Fisheries Ireland prepares the development plans, carries out the Appropriate Assessments (AA), provides the materials and supervises the works on site.

Following damage to spawning beds by drainage maintenance activities in the closed season, IFI and OPW staff identified certain drained channels in the Moy catchment that were effectively selfmaintaining and did not need to be maintained every five years. This allowed the OPW to focus resources instead on the channels that did require maintenance.

The PMO, Research and RBD staff also interact with staff from the NPWS and Coillte on a regular basis. The PMO advised Coillte on the potential benefits that re-wilding some of forest sites could have on fish habitats.



Working with other stakeholders

In 2021, we continued to assist the North Atlantic Salmon Conservation Organisation (NASCO) with the administration of their International Year of the Salmon Education and Outreach fund.



Image: Still from one of the video projects funded by NASCO

Modernising our angling infrastructure

In 2021, IFI continued to manage the existing stock of angling infrastructure. Over 2,700 angling assets were audited from a safety and maintenance perspective to ensure recreational anglers were not at risk of harm. The work carried out on angling assets can be summarised as follows:

Angling assets	New structures	Repaired structures	Replaced structures
Access stiles	19	42	181
Angling stands	21	262	101
Footbridges	10	52	74
Car parking spaces	7	0	0
Improved trails	2km	0	0

The maintenance of angling assets was carried out using IFI resources, in addition to funding granted by the Department of Rural and Community Development under the Outdoor Recreation Infrastructure Scheme (ORIS). A further application for funding was made to ORIS for the maintenance of angling infrastructure in 2022. The application was successful and a grant of €491,317 was awarded. An example of the projects undertaken can be seen on works which were carried out to the existing boardwalk and mooring at Finea Bridge on the River Inny. This had fallen into disrepair and was deemed unsafe for the imminent increase in its use for the season. Repairs were carried out to make it safe for use.



Images: The old timber on Finea Bridge was removed (left) and replaced with composite timber in a similar style (right).



Supporting other (non-IFI owned) fisheries

In addition to the funding provided through the SSTRCPF to develop and restore fisheries habitats, over €148,000 was paid out to eight grant-awarded projects in 2021. Included in the list of completed projects was The Angling for All Hub on Lough Ree.



Image: Lough Ree Angling for All wheelchair accessible boat (courtesy of the National Lottery)

Salmon and sea trout management

2021 saw IFI deliver on the following:

Key 2021 achievements

- 83 rivers were open for salmon and sea trout fishing
- 49 rivers were open for harvest of salmon and sea trout fishing
- 34 rivers were open for 'catch-and release only' angling
- 15,547 angling licences sold in 2021
- 57% of logbooks returns by anglers who purchased licences in 2021
- 24,668 salmon caught by anglers
- 11,900 salmon harvest by anglers
- 12,768 salmon released by anglers
- 6,480 salmon caught by commercial fishermen.

Salmon and Sea Trout Tagging Scheme

In 2021, based on scientific advice, Inland Fisheries Ireland management recommended the opening of 83 rivers in total for salmon and sea trout fishing (for sea trout measuring over 40cm). Forty-nine rivers were open, with surplus for harvesting, and 34 rivers were open for catch-and-release angling only.

A system of brown gill tags was in operation in selected rivers to ensure river-based salmon angling quotas were not exceeded. Sixty-four rivers were closed, since they failed to meet the thresholds required to open rivers for salmon and sea trout angling. The angling Statutory Instrument and Bye-Laws (S.I. No. 667/2020, Bye-Laws Nos. 982,984,985 and 986 of 2020, C.S 331 of 2020) also ensured additional protection was afforded to salmon and sea trout stocks in certain closed and catch-and-release fisheries.

Salmon catch

The 2021 Wild Salmon and Sea Trout Statistics show that the total number of salmon caught by all methods (including catch-and-release) was 31,148 salmon and 1,595 sea trout respectively. This represents an increase of 11.9% on the total salmon catch recorded in 2020 (27,829) and an increase of 14.4% on the total sea trout catch recorded in 2020 (1,394).

The 2021 commercial catch was 6,480 salmon and 57 sea trout (over 40cm) which represent 93% of the Total Allowable Catch (TAC) of 7,037 fish allocated to the commercial fishing sector.

The biggest landing of commercial salmon catches in 2021 were in Kerry and Cork. The River Laune had 2,130 salmon (33%), the Blackwater had 1,755 salmon (27% of the commercial catch), Castlemaine Harbour had 672 salmon (10% of the commercial catch) and the River Lee had 539 salmon (8% of the commercial catch).

The 2021 angling catch (fish caught with a rod and line) was 24,668 salmon and 1,595 sea trout. Of the 24,668 salmon caught by anglers, 11,900 were harvested and 12,768 subsequently released. Commercial fishermen caught 21% of the catch in 2021, compared to 22% in 2020. Recreational anglers caught 79 % in 2021 compared to 78% in 2020.

The most recent Wild Salmon and Sea Trout Statistics Report (2001-2020) can be downloaded from: www.fisheriesireland.ie/media/wild-salmon-and-sea-trout-statistics-report-2020.

Salmon catch	2021	2020
Angling and commercial	31,148	27,829
Total angling and commercial salmon catch		
Commercial	6,480	6,179
Total commercial salmon catch data		
Angling		
Total salmon harvest	11,900	10,562
Total salmon caught and released	12,768	11,088
Total salmon angling catch	24,668	21,650

Table: Details of 2021 salmon catch by all methods compared to 2020 figures

Licence sales and logbook returns

15,547 salmon rod licences were sold to anglers from 32 different countries in 2021, which represents an increase in sales of 10% over 2020. The majority of licence sales (82%) were made to residents within Ireland, with 10% to Northern Ireland. A further 3.5% of angling licence sales were made to UK residents, with a significant number of anglers also coming from France (1.5%) and Germany (1%).

Anglers returned 8,462 logbooks in 2021, with a national return rate of 54.4% down from 56.4% on 2020 logbook returns.

Table 2 shows the summary statistics for the total numbers of rod licence sales from 2001-2021 and the numbers and percentage of logbooks returned by salmon anglers.

Year	Licence sales	Logbook returns	% Return
2011	19,899	14,414	72%
2012	19,588	14,597	75%
2013	19,109	14,035	73.5%
2014	18,085	12,880	71%
2015	18,460	13,010	70.5%
2016	18,303	12,562	68.6%
2017	18,212	9,923	54.5%
2018	16,755	9,557	57%
2019	17,281	9,979	57.7%
2020	14,138	7,969	56.4%
2021	15,547	8,462	54.4%

Table: Salmon and sea trout angling licence sales and logbook return 2001-2021

Public consultation

The Wild Salmon and Sea Trout Tagging Scheme was first introduced two decades ago and, since then, Ireland has seen a seismic shift towards buying and selling online, with many technological

advances along the way. From October 2021, IFI opened a public consultation process that allowed the public, especially those involved in the angling sector, to have their say on the management of how licences, tags and logbooks are issued and distributed in the future. The consultation closed on 1 December.

Bye-laws and special instruments

The Wild Salmon and Sea Trout Tagging Scheme Regulations, S.I. No. 585 of 2018, was amended by S.I. No. 667 of 2020, and provides the quotas of fish that can be harvested by angling and commercial fishing from those rivers identified in the regulations. This includes the use of blue and brown tags in specified rivers, which are identified in the regulations.

The principal bye-laws introduced for the 2021 season were for the conservation of salmon and sea trout stocks. Bye-laws were set in place at both national and local levels in order to facilitate bag limits for salmon and sea trout angling (Bye-law No. 983 of 2020), the opening of fisheries on a catch-and-release only basis (Bye-laws No. 984, 985 and 986 of 2020), and the closure of certain fisheries where additional protection to salmon and sea trout stocks was considered necessary (Bye-law No. 331 of 2020).

Further restrictions were set in place for all angling methods on certain closed and catch-and-release fisheries prohibiting the use of any fish hooks, other than single barbless hooks, and the use of worms as bait in angling where it was considered necessary to afford additional protection measures to salmon and sea trout stocks (Angling Bye-law No. 982 of 2020).

Commercial fishing for salmon and sea trout, detailing the rivers where commercial fishing was permitted along with the opening and closing season, was set out in Bye-law No. 988 of 2021. The Control of Fishing for Salmon Order (S.I. No. 102 of 2021) set out the authorisation of commercial fishing licences and the maximum number of commercial licences that may be issued.

Education and Outreach

Inland Fisheries Ireland delivers an annual Education and Outreach programme, which was impacted by COVID-19 in 2021. Education and Outreach activities within Inland Fisheries Ireland for 2021 were primarily undertaken by the team of Education and Outreach Coordinators, who were working on programmes financed by the Dormant Accounts Fund (DAF). The coordinators were supported throughout the year by RBD divisional staff and IFI's Education and Outreach Team.

As threats from climate change increase, so does the need for urgent action to address them. Raising awareness of climate action, adaptation and mitigation are all part of Education and Outreach activities to ensure appropriate stewardship of our precious inland fisheries and sea angling resources.



Key 2021 achievements

•	1,051 people took part in 'Go Fishing' programmes during 2021; a virtual Go
	Fishing Week took place exclusively online at the end of April and 645 members
	of the public registered for webinars
•	The 'Nurture Transition Year Angling' programme was rolled out to three

- schools
 <u>Getting hooked</u> A Fishing Handbook' was published with Scouting Ireland
- 12 women took part in workshops and began their journey to becoming angling coaches
- We had over 100 entries for the national 'Something Fishy' acrostic poetry competition for primary schools
- We developed a new game for anglers with 'Leave No Trace' in Ireland to raise awareness of litter generated by anglers and how long it takes to recycle.

In 2021, IFI operated the third and final year of Dormant Accounts Funded (DAF) measures that address economic, social or educational disadvantage, or support people with a disability. Go Fishing was the sole measure delivered in 2021.



Images: Preparing the ground bait at Lough Gara and pier fishing in Donegal

Go Fishing

The Go Fishing measure involved six Education and Outreach Coordinators, who were regionally based to attract and deliver bespoke fishing programmes to the DAF target groups. Go Fishing was aimed at anyone who wished to take part, however it targeted in particular teenagers and also people who are marginalised. Participants had often never fished before, or were returning after a long absence. The programme was tailored to each group's needs and abilities, and ran from May when COVID-19 restrictions ended, right up until the middle of December. The sessions covered environmental stewardship and we plan to make the resources available to a public audience as a legacy project.

IFI continued to offer two types of programmes, through a mix of online engagement and outdoor practical classroom-type settings: the 'Try Fishing' programme is for people who have never tried fishing before and the 'Go Fishing' programme is for people who already enjoy fishing, and will benefit from a more in-depth programme.



Images: Go Fishing sessions with teenagers and adults

Many adults took part in our sessions, including members of Acquired Brain Injury Ireland, Rehab Care and disability groups through local sports partnerships.

Increasing participation by women in the sport of angling is aligned with Government policy. Two successful programmes took place relating to women in sport in 2021. Firstly, Cavan Sports Partnership teamed up with IFI to run a four-week programme for novice women anglers. Secondly, a group of experienced women anglers came together online to build confidence in becoming coaches. A number of these women have since progressed to becoming angling coaches with their relevant national angling governing body.



Images: Advertisement for the Go Fishing for women (left) and example of media interest in women fishing generated from one of the competitions during Go Fishing Week (right)

Beginner's angling guide

<u>'Getting Hooked'</u> is a beginner's guide to fishing and was developed by IFI in partnership with Scouting Ireland.

The first group to get involved were the 31st Cork Lissarda Scouts who travelled to Coachford to fish at Inniscarra, and also took part in a media campaign to launch the Getting Hooked Handbook in 2021.



es: Getting Hooked Handbook (top) and scouts fishing at Inniscarra (bottom)

The online Go Fishing courses, which were a major feature in 2020, continued up until May 2021. From May onwards, these courses moved primarily outdoors. Sessions were easily adapted to outdoor classroom models.



Images: Outdoor classroom: casting on the grass (left) and transition year students at Oaklands (right)

Several transition year students at DEIS (Delivering Equality of Opportunity in Schools) schools took part in programmes during May and September 2021, as they were within walking distances of venues. Throughout all events, strict COVID-19 protocols were in place and every precaution was made to sanitise all angling and safety equipment, using a certified virucidal surface sanitiser. IFI followed Sport Ireland's 'Return to Sport' protocols.



Images: Poster to launch Dublin Angling Initiative (DAI) and anglers with disabilities facility at Aughrim, Co Wicklow (right)

Since 2019, funding under the Go Fishing measure allowed for expansion of the Dublin Angling Initiative (DAI) to offer a year-round programme for target groups. In addition to staff, there was also a key network of coaches and volunteers who assisted with the running of these fishing programmes. This was fundamental to its success. Some of the groups have also become selfsufficient after receiving funding through the 'Angling for All' grant in 2020.



Images: A typical set up at Go Fishing sessions

The new 'Nurture Programme', which is aimed at transition year students with additional needs, was rolled out to three pilot schools in September 2021.



Images:The Nurture Programme educational poster (top) and school children enrolled in the Nurture Programme pilot project (bottom)

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Angling for All

Most groups that received funding in 2020 from the 'Angling for All' grants began preparing and running events towards the end of 2021, in compliance with COVID-19 public health measures. Other groups had plans in place for rollout in 2022.

One group in particular, Lough Ree Access for All, were funded to purchase specially-adapted rods for anglers with disabilities. The group featured prominently in a national TV advertising campaign in 2021, funded by the National Lottery, which has generated renewed interest in angling within disability groups.

Inland Fisheries Ireland ceased its Dormant Accounts funded programmes at the end of 2021. The legacy of Go Fishing and Angling for All continues through the 33 groups/angling clubs that were awarded funding at the end of 2020. These awards ensured impact on the ground, allowing, and continuing to allow, target groups to access angling through angling organisations and community and voluntary groups. These groups continue to engage and grow angler numbers in the disadvantaged sectors, through the availability of inclusive equipment and safe access to angling for all. Further legacies exist through the availability of the various lesson plans, videos, publications, games and more, developed as part of the programme.



Images: Angling on the Lough Ree Access for All boat (left) and fishing trip at Sligo (right)

Cranmore Community Cooperative Society in Sligo is another example of a group getting involved with a 'Try Fishing' day. This was held on the newly-installed floating jetties, funded through the National Strategy for Angling Development (NSAD) scheme on the Garavogue River.

The DAI has assisted the James' Street Project in the Liberties in Dublin for the last number of years. Now the project is self-sufficient, having received Angling for All funding from IFI in 2020 to buy fishing equipment (including: rods, clothing and PPE). Each year, this project introduces a new set of transition year students from CBS James' Street to the world of angling and the environment.

Something Fishy

'Something Fishy' is the main educational programme within IFI. It is aimed at fifth and sixth classes, working through an established partnership with local Education Centres. One hundred and four primary schools originally signed up to the programme, but due to COVID-19 public health restrictions, class visits or field trips could not take place in 2021.



Image: The new Something Fishy logo

Region	Number of schools
NWRBD	18
WRBD	31
SRBD	21
ERBD	6
SWRBD	13
SERBD	15
Total schools	104

Table: Distribution of schools for 2019/2020 Something Fishy programme

In February, in conjunction with <u>Blackrock Education Centre</u>, IFI launched a very successful Something Fishy poetry competition for primary schools. Primary school students around the

country were challenged to create an acrostic poem in which the first letter of each line spells out the word 'Stream.' Students were also welcome to enter the competition as Gaeilge, spelling out the word 'Sruth'.

CatchmentCARE

CatchmentCARE is an EU-funded project that aims to improve freshwater quality within the north western and Neagh Bann international river basins. The project is focussed across three cross-border catchments: the Arney, Blackwater and Finn. IFI are one of the partners involved, taking part in the educational element of the project.

Another project, 'Finn Through the Lens', is also part of the CatchmentCARE Community Incentive Scheme (CIS). It promotes discussion and understanding of the role of the river in the local community environment. Seventeen schools within the River Finn catchment were invited to join online video workshops and IFI delivered a workshop looking at the geography of the River Finn and the biodiversity found in, on and around it.



Images: Filming with Catchment Care (left) and online presentation (right)

A new game was developed in 2021 (based on an existing one from <u>Leave No Trace</u> (<u>www.leavenotraceireland.org</u>) to raise awareness around how long it takes angling rubbish to breakdown, decay or be recycled.

Two publications were completed in partnership with Leave No Trace. Firstly, a responsible angling guide and secondly, a <u>handy checklist</u> to encourage the angling community to follow the <u>seven</u> <u>principles of Leave No Trace</u>.



Image: Angling checklist to promote environmental stewardship

Go Fishing Week

A very successful online Go Fishing Week took place from Sunday 25th April to Monday 3rd May 2021. The main aims of the week were:

- To get people involved in fishing and to make it more accessible to all
- To connect with anglers, clubs and the general public to promote all kinds of fishing
- To raise awareness of key issues and information through different daily themes during the week.

Go Fishing themes

Nine themes were explored and various events took place during the week to support these:



- 1. Accessibility: making angling accessible for all
- 2. Habitats: sensitive habitats, biosecurity and protection from invasive species
- 3. Wellbeing: health benefits from angling as a recreation
- 4. Safety: for anglers on and near water
- 5. Culture: cultural significance of our waters and fish
- 6. Rare and threatened fish species: creating greater exposure to these species
- 7. Climate change and biodiversity loss: exploring how fisheries are affected
- 8. Sustainability in angling: catch, photo, release, Leave No Trace, line recycling
- 9. Go fishing for novice anglers: getting involved and the next generation



Images: The character of 'Sinann', a Celtic name for the river goddess of the Shannon, was introduced

During the week, a large programme of webinars was hosted, for which 645 members of the public registered. All webinars are available on <u>Inland Fisheries Ireland's YouTube channel</u> (www.youtube.com/c/InlandFisheriesIreland) for year-round access.

Forty videos were created by IFI staff under the following headings:

- Why people <u>love to fish</u>
- Fisheries habitat improvement and angling infrastructural works
- <u>'How to' videos</u> for anglers
- **Documentary** videos
- Going fishing and live streams
- <u>Safety</u> and <u>angling sustainably</u>.

Three competitions took place to encourage engagement from members of the public. These competitions also generated further awareness of the work of Inland Fisheries Ireland.





Images: Poster winner (top) and photo winner 'My favourite fishing place' (bottom)

Due to COVID-19, there were no large public events attended by IFI until November 2021. In 2021, Ballyhoura Development in Co. Limerick coordinated a successful one-day event at Croom Sports

complex, to promote Science Week. Inland Fisheries Ireland provided an interactive display of juvenile salmon from the ESB hatchery for up to 500 attendees.



Images: IFI taking part at Science Week in November 2021 at Croom, Limerick

Links to other Government policy

Within the National Biodiversity Action Plan 2017-2021, Inland Fisheries Ireland is listed as one of the state bodies with a role in biodiversity conservation. During 2021, the focus was to increase awareness and appreciation of biodiversity and this was achieved through the use of outdoor classroom events, which took place from May to December.

In 2016, the National Council for Special Education (NCSE) published policy advice for children with Autism Spectrum Disorder (ASD). In its review it called for all Government departments to develop a national day activity programme during the month of July that provides a structured, safe and social environment for students with complex needs.

During 2021, upskilling and training of Inland Fisheries Ireland staff, who were involved and interested in delivering Education and Outreach programmes, took part in the following training:

- Autism in sport
- Disability awareness
- Mental health first aid

This training has upskilled staff to become more aware of how we engage with our stakeholders in all aspects of our work. Creating equal opportunities is important, but providing equity for our stakeholders also means that we must provide access to the same opportunities.

In alignment with '<u>Action Plan for Rural Development - Realising Our Rural Potential</u>', we have continued to feed into 'Pillar 3 - Maximising our Rural Tourism and Recreation Potential'. Primarily for Education and Outreach, this is achieved through the delivery of the Something Fishy national schools' programme, throughout rural Ireland. This informs and educates students on fish, water, angling and the environment in their local areas.

'Healthy Ireland' is a Government-led initiative aimed at improving the health and wellbeing of everyone living in Ireland. Fishing can provide both physical and mental health benefits, a message that was included in all initiatives in 2021.



Angling promotion

The Sustainable Tourism Working Group of the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media aims to promote sustainable tourism practices (outlined in their Statement of Strategy 2021-2023), and this mirrors the obligations included in IFI's corporate plan of stakeholder engagement and stewardship of the inland fisheries and sea angling resources.

The guiding principles are:

- Working together with industry towards achieving a sustainable tourism sector
- Achieving sustainable tourism growth in a manner that focuses on overall economic benefit, ahead of the number of tourists
- Supporting economic growth in communities throughout the country and with a greater spread of demand across the year
- Delivering high quality tourism experiences that exceed our visitors' expectations, in a manner that minimises any negative environmental or community impacts
- Protecting our natural landscape and our historic and cultural assets for the next generation
- Promoting responsible behaviour by our visitors to maximise the mutual benefit of tourism to Ireland's people and place.

Key 2021 achievements

- Complete redesign and relaunch of the IFI corporate website
- Publication of booklet on angling regulations in 10 languages
- ESRI Angler Panel found that domestic anglers contribute €633 million per year to the Irish economy, with total angling spend (including tourism) amounting to almost €1 billion
- <u>Documentary on the Galway Fishery</u> produced, which led to coverage on RTE's nationwide programming
- Weekly Irish Angling Update e-newsletter was issued 52 times in 2021 and achieved 12,086 active subscribers.

State fisheries: access to angling

Inland Fisheries Ireland has over 180 State-owned fisheries, with approximately half of those under third-party management.

These fisheries can vary in size and character and the term 'State fishery' can describe anything from a short section of stream to a whole river catchment encompassing dozens of loughs.

In 2021, the process of digitally mapping the known State-owned fisheries continued. Over 900 individual river or lake sections were mapped in this manner, to make it easier for angling clubs and individuals to identify the boundaries of these fisheries. The mapping project hopes to increase awareness of State-owned fisheries and, ultimately, improve access to them by offering the capability to purchase permits for these fisheries through our online shop.

In relation to the third-party management of State fisheries, a standard and transparent process is in place for the tendering and licensing of these fisheries. We have a policy of ensuring that all State-owned fishery assets are openly available to the public, and for that reason, angling clubs who are awarded a State fishery licence must make the fishery available through day/weekly/season tickets to all visiting anglers. This ensures that all State fisheries can be enjoyed by local and tourist fishers alike. In 2021, Inland Fisheries Ireland licensed 91 State-owned fisheries to 54 angling clubs and organisations, generating income of €51,695.

Websites

Our websites play an important role in communicating with all of our stakeholders. Through our corporate site, we can share important information regarding our various functions and activities. The site also enables and facilitates our public consultations. Different users can apply for a range of services, which can vary from ordering fish online from our fish farms to registering interest in an overseas trade show. A complete redesign and development of the website was completed in 2021, modernising the website and creating an improved user experience.



Our angling websites are available in five different languages and allow us talk directly to the angling market at home and abroad. The site is both an informative and important marketing platform. The model that is employed involves pushing customers to the various angling provider websites, enabling providers to sell their goods and services directly to customers. These are a diverse group and can include tackle shops, angling guides, charter boats, salmon fisheries, coarse angling festivals and more. In 2021, Inland Fisheries Ireland embarked on an ambitious project to overhaul the website <u>fishinginireland.info</u>. The new-look site uses a number of directory-based and mapping solutions, which make it easier for anglers to find services and fishing in their area.

We published 1,258 angling reports on the English, French, German, Dutch and Italian websites.



We finished 2021 with 12,086 active subscribers to the Irish Angling Update ezine. During the year we issued 52 ezines. The average open rate was 36.6% and went as high as 53.5% in 2021. Click throughs were as high as 15% and averaged 13% through the year. This compares very favourably with industry averages which are a 24.6% open rate for sports ezines, with just 3.1% for click throughs.

We also have project-specific websites for defined services like Something Fishy and activities funded by European programmes.

Brochures and publications

In 2021, Angling Advisors produced a series of new angling brochures. These brochures contain detailed information and maps to assist anglers who are looking to go fishing in Ireland. These resources also help Inland Fisheries Ireland to promote angling as a recreational activity to both domestic and foreign anglers. The brochures included the following:

- North West Sea Angling Guide (update)
- River Inny Angling Guide
- River Nore Angling Guide
- River Boyne Angling Guide (Dutch)
- Annagh Lake Angling Guide (update)
- IFI partnered with Scouting Ireland to publish 'Getting Hooked', a beginner's guide to fishing
- Thirty-two videos, including a <u>documentary on the Galway Fishery</u> (35 mins) was produced for Go Fishing Week.



Images: Cover pages of IFI's various angling brochures and publications

Journalist visits

Due to COVID-19, no journalist visits could be facilitated in 2020. In 2021, early plans had to be rescheduled to later in the season, and included four journalist visits hosted by Inland Fisheries Ireland staff from across Europe, with two from France, one from the UK and one from Denmark (detailed below).

France:

1. Pascal Leherissier from Brochet Sandre magazine. An article is due to appear in a 2022 issue of the magazine.

2. Julien Lajournade editor of Voyages de Pêche magazine and owner Stéphane Uzan. We anticipate an article in Voyages de Pêche in early 2022.

UK:

Visit from Andrew Flitcroft and Rob Hardy of Trout & Salmon magazine, during which fishing took place in Lough Corrib, Lough Mask, River Erriff and Galway Fishery. We anticipate two or three articles in spring 2022.

Denmark/Scandinavia:

A visit from Danish journalist Thomas Vinge in September saw him take part in trout fishing on the River Suir and sea bass fishing along the Dungarvan coast. We anticipate articles in several Scandinavian magazines.



Image: Double page spread in Fishing & Travel magazine

A TV crew also visited from France to film for Écrans du Monde, a show which airs on the Saisons channel, which has 800,000 subscribers. Additional footage was provided by the Angling Advisor team and the documentary is due to air in February 2022.

Angling tourism industry and trade expositions

Due to travel restrictions, most international angling expos were cancelled in 2021.

Inland Fisheries Ireland did attend two international expos in Germany, however, under the 'Angling Ireland' brand. Each expo provided a different mix in terms of angling products and target markets. The Angelwelt fair in Berlin (Germany's biggest angling fair) covers all main disciplines such as game, pike, coarse and sea angling. However, the more specialised fly fair in Munich (Experience the World of Flyfishing) focuses mainly on game anglers. Inland Fisheries Ireland staff provided relevant product and market knowledge to visitors at both.

Inland Fisheries Ireland also supported a member of the Irish angling industry at the venue in Berlin. In addition, media leads were generated resulting in five media visits planned to take place in 2022.



Image: Representation for Ireland at international angling fairs

Promotional collateral: new content

Extensive footage of fisheries was recorded for angling promotion during the 2021 season. A <u>documentary on the Galway Fishery</u> (35 mins) was produced for Go Fishing Week. Thirty-one other videos were edited for Go Fishing Week, some provided by staff and others by the public. Many of these offer an ongoing resource and feature on the IFI YouTube channel, with an emphasis on sustainable angling.



Additionally, footage was captured of various environments, fish and habitats that will be available for future film projects as a library resource of clips.

Sponsorship Programme

Inland Fisheries Ireland runs an annual Sponsorship Programme to fund projects and events that support novice and junior anglers, whilst also supporting those that help to grow angling tourism in Ireland.

Pre-pandemic, the IFI Sponsorship Programme would normally receive upwards of 100 applications from fishing clubs, angling federations and tourism service providers to assist with the smooth running of angling related events and initiatives. In 2020, the programme had to be effectively cancelled due to restrictions on organised group activities and international travel.

In 2021, there were some signs of recovery, with 40 applications for support for various events held in Ireland, these included:

- 10 applications for large-scale international angling festivals and competitions to be held in Ireland
- 26 applications for novice coaching events or junior competitions
- Four applications for fisheries awareness events or other initiatives.

Socio-economics

The Economic and Social Research Institute (ESRI) continued their Angler Research Panel throughout 2021. During analysis of angling-related expenditures during the years 2018-2020, the ESRI found that recreational fishing activity was strong in 2020 despite the restrictions on organised group activities and travel within Ireland. Analysis of Irish anglers' direct expenditures found that €568 million was spent in 2018, €642 million in 2019 and €689 million in 2020. These figures provide an estimate of total fishing trip expenditure for Irish anglers over the period and the items include all those associated with their fishing trips (such as food, accommodation, fishing equipment, boat hire and licence fees).

Allowing for leakages from the economy, and then using the multipliers developed by Tourism Development International for the 2013 Study on Recreational Angling in Ireland, we can estimate that Irish anglers alone contributed over €937 million to the Irish economy in 2021.

Data is currently not available to assess the impact of overseas angling tourism, however, Fáilte Ireland estimated a 75% reduction in overall inbound tourism travel for 2021 when compared against 2019. Based on this figure, the economic contribution of overseas anglers could be estimated at over €31 million, giving an overall economic contribution to the Irish economy within touching distance of €1 billion euros for the first time.

Confidential 24-hour hotline

Inland Fisheries Ireland has run a 24-hour hotline since 2010, to enable the public to report suspected pollution, illegal fishing or poaching and to make general enquiries. For the first 10 years of service, the average volume of calls per year was about 380. In 2021, call volumes increased considerably. By the end of December, 772 calls had been made to the hotline. This amounts to a

200% increase on the average call volume. While all call types saw an increase, the greatest increase was in general queries, which alone rose to 334 calls.

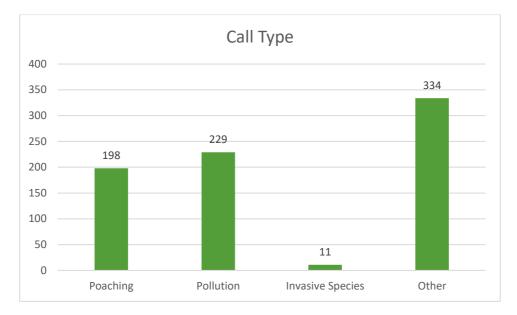
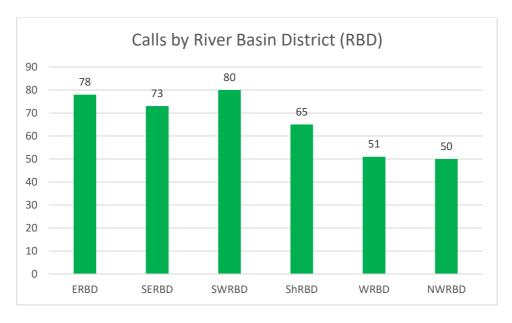


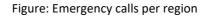
Figure: Bar chart displaying volumes of call type

Regional distribution of calls

The Eastern and South Western RBDs had the highest number of emergency calls in 2021. They both received 20% of the total number of emergency calls (approximately 80 calls each).

The South Eastern and Shannon RBDs accounted for 18% and 16% of the total number of calls, with the Western and North Western RBDs received the remaining **26% of calls (13 each)** to the 24-hour hotline.





Calls are not evenly distributed through the year and reflect those periods of greatest angling activity (when more people make more reports), and to a degree the periods of greatest risk, salmon

runs, low water level pollution incidents and other events that normally occur during summer months.

Support sustainable angling and angling tourism

The Angling Advisor team support a viable, thriving, and sustainable angling industry in Ireland, worth close to €1 billion to the economy. 'Catch-and-release' (C&R) is increasingly a feature of Irish angling tourism. Pike and coarse fishing is close to 100% C&R, 51% of salmon anglers now practice C&R, and many sea and trout anglers also release all their fish. The messaging in all angling content features C&R heavily and promotes sustainable angling consistently throughout.

Responsible environmental behaviour that conserves habitats is also heavily promoted, with the principles of Leave No Trace prominent in our messaging.

Sustainability is not just about reducing emissions; it is also about meeting of the needs of the present (e.g. maintaining employment in rural areas) without compromising the ability of future generations to meet theirs. Maintaining fish stocks and habitats fulfils these criteria, and promotion of angling that does not impact on these is important to this aim.

Corporate communications

Working with all departments internally, the role of the Communications team is to capture Inland Fisheries Ireland's corporate plan priorities, positions, challenges and achievements and convey those effectively to our target audiences and stakeholders.

Key 2021 achievements

- An increase in the levels of awareness of Inland Fisheries Ireland among the general public
- €3.3 million in Advertising Value Equivalent (AVE) achieved through earned media coverage
- 350 national and local press releases issued, aligned with the Corporate Plan's High Level Objectives
- 129 media requests managed
- Growth in audience figures across all social media platforms
- Production and internal rollout of promotional materials for the new 2021-2025 Corporate Plan.

Inland Fisheries Ireland has a wide statutory remit, encompassing a diverse range of projects and initiatives which involve multiple stakeholders.

Working with all departments internally, the role of the Communications team is to capture Inland Fisheries Ireland's corporate plan priorities, positions, challenges and achievements and convey those effectively to our target audiences and stakeholders.

The Communications team runs Inland Fisheries Ireland's press office and media relations service.

In 2021:

- 350 national and local press releases were issued on behalf of Inland Fisheries Ireland, with messaging aligned with the 2021-2025 Corporate Plan
- Approximately 129 requests from members of the media were managed (such as requests for interviews, photography and further information)
- Seven workshops were held for Inland Fisheries Ireland staff to help them prepare for different types of interviews and speaking engagements.

According to a report from Kantar Media, the AVE of media coverage, which referenced Inland Fisheries Ireland in the domestic market in 2021, was €3,360,527 with a combined reach of 109,706,543.

IFI 2021 media coverage	
775	Print media clippings (across local/national newspapers)
684	Online media clippings (across Irish-based websites)
628	Broadcast media clippings (across local/national TV and radio)

Several integrated cross-channel campaigns were rolled out in 2021, which included:

- Go Fishing Week
- Seasonal Fisheries Officers Recruitment Campaign
- Something Fishy poetry competition
- Changeover of confidential hotline number.

For example, the 'Go Fishing Week' PR campaign resulted in 92 items of 'earned' media coverage, worth just over €108,000 in AVE. Eighty-four organic posts on Facebook covering the campaign reached a total of 170,817 people. In addition, the Communications team played a central role in the internal launch of Inland Fisheries Ireland's new 2021-2025 Corporate Plan, coordinating promotional videos and helping to run virtual townhalls for staff.

Increasing awareness of 'who' Inland Fisheries Ireland are, and our important role as a State agency, remains a key objective of the Communications team. Inland Fisheries Ireland placed a set of questions in an online Omnibus Survey through Amárach Research in July 2021, to help assess awareness levels.

According to this survey, awareness levels of Inland Fisheries Ireland have increased steadily over the last five years, as follows:

- 2021: 61% of respondents were aware of Inland Fisheries Ireland
- 2019: 56% of respondents were aware of Inland Fisheries Ireland
- 2017: 50% of respondents were aware of Inland Fisheries Ireland

Several high-profile media interviews took place in 2021, to help raise awareness of Inland Fisheries Ireland's role at a national level. These included:

- RTÉ Prime Time report on the water quality in Ireland's rivers and lakes
- RTÉ Six News and Nine News report on the effects of rising water temperatures on fish
- RTÉ Nationwide report on the facilities for anglers with disabilities.

Social media

There was an increase in followers/subscribers across all four of Inland Fisheries Ireland's social media channels in 2021.

Ŧ	Inland Fisheries Ireland's Facebook page had 19,000 followers at the end of 2021, up 6.4% with 1,142 new fans compared with 2020. There were 383 posts published on the platform during the year, with just over 3.3 million impressions.
y	Inland Fisheries Ireland saw its followers on Twitter increase to 4,877 (up 8% from 2020) and monthly tweet impressions peaked at 122,000 (May 2021). In 2021, there were over 1,177 tweets sent from this channel.
in	Inland Fisheries Ireland's LinkedIn page had 2,633 followers at the end of 2021(up 28% from 2020 with 578 new followers). The total number of impressions for 2021 was 143,850.
YouTube	Inland Fisheries Ireland's YouTube subscriber numbers nearly doubled during 2021, reaching 842 subscribers (up 92% from 2020). Videos on the channel received a total of 39,924 views in 2021, with 2,800 hours of content watched. The most viewed video during this period was the Galway Fishery Documentary with a total of 9,214 views and an average of 9:38 minutes watch time.

4. Supporting our work: efficiency and effectiveness

Inland Fisheries Ireland's Corporate Services provides all of the corporate management, human resources (HR) and financial management, logistics and IT services that enable the organisation to run smoothly and to deliver on our mission to protect and conserve Ireland's fisheries resource in an efficient and effective manner. These services also cover responsibility for health and safety, learning and training procurement, facilities management and data governance.



Our people

In 2021, the HR team in IFI continued to manage and lead staff safely while working during a global pandemic. The HR team lead the COVID-19 taskforce, which facilitated changes to work practices so that operational service delivery could continue uninterrupted, whilst ensuring best practice in terms of safe ways of working.

The HR team have worked collaboratively with IFI trade unions in line with the provisions of the COVID-19 protocol issued by the Labour Employer Economic Forum (LEEF) pertaining to their guide for Irish workers: 'Returning to Work Safely'. Flexible home working arrangements were facilitated and a 'Hybrid Working Policy' was developed and issued to staff, for implementation in early 2021, in line with public and civil sector timelines.

Throughout 2021, the HR team focused on corporate wellness by implementing a host of staff wellbeing activities and measures, many of which were delivered online (e.g. competitions, healthy eating tutorials, expert personal financial consultations, coffee mornings and more). Inland Fisheries Ireland also underwent the application process for the Ibec KeepWell Mark programme. This involved working through a host of key areas such as leadership, mental health, absence management, physical activity and healthy eating under the guidance of experts in the area of corporate wellness. An audit was undertaken in Q3 of 2021, and IFI was successful in achieving the accreditation in December 2021.

Following two years of development, the HR team has now launched a new performance management system built and championed by staff. The new system is called Performance and Development Review (PDR) and aims to provide a modern, dynamic and evolving system to match the needs of our organisation. The new PDR process places a strong focus on regular conversations between managers and their team, whilst also promoting staff to take responsibilities in both their working and learning goals.

The HR team ran a very successful seasonal recruitment campaign in 2021 despite the global pandemic. IFI was successful in hiring 37 seasonal Fisheries Officers (assigned to protection and development activities) along with 14 seasonal Research Assistants (assigned to various research programmes). The HR team processed over 2,000 applications and carried out in excess of 280 interviews. Training for new officers was adapted to be carried out predominately online, in order to meet pandemic restrictions, and so the HR team were able to hire, train and onboard 51 seasonal staff to start their seasonal contracts in June 2021.

Towards the end of 2021, in anticipation of developing and launching an internal communications strategy, the HR Team carried out in-depth working groups with a cross section of staff right across the organisation. The data collected and collated as a result of this process has been paramount in devising the right strategy to improve internal communications for the organisation. The data collated will be utilised to not only develop an internal communication strategy but also to prioritise an action plan. This will determine improvements and help to devise a roadmap to remove roadblocks, creating effective communications within IFI.

Learning and Training

We aim to continually develop our staff to ensure they have the right knowledge, skills and abilities to effectively perform their role within IFI. We work with staff and management to organise all necessary training, provide opportunities for staff and ensure future development of IFI.

We appreciate all the support from our staff in delivering training and opportunities for learning. Such opportunities are realised through the training college, Management Development Programme (MDP) and manual handling. Other IFI staff help us organise training both from an administrative perspective but also in terms of procurement etc.

Key 2021 training figures

- 1,940 individuals participated on our training courses
- 62 different training courses are offered
- €399,309.36 spent on staff training and skills development.

Focus for 2021

In 2021, we were still impacted by COVID-19, which restricted our abilities to offer in-person staff training. Yet, in some instances, we were able to overcome this by either converting the training to an online module on Safety Hub, or by delivering the training via video calls.

We were delighted to welcome 37 seasonal Fisheries Officers and 14 Fisheries Assistants to IFI this year. Although less than ideal, the two weeks of virtual training was delivered successfully by the training college.

In the spring of 2021, we critically needed RIB Crew training and a number of other courses to prepare our staff for the busy season ahead. These included Commercial Endorsement, VHF Radio, RIB Capsize, Casualty Care and Personal Survival Techniques, among others. Once trained, our RIB Crews were well equipped to deliver our essential patrols along Ireland's coastline.

We organised all of the relevant health and safety education for staff such as First Aid and Manual Handling as well as delivering the following training (and much more):

- Electrofishing for Operations and Research (see photo)
- Fish Handling and Welfare
- Data Management training including R, SQL and Arc GIS Pro
- Drone Pilots

- Safety Representative course
- City & Guilds Chainsaw and Polesaw courses
- Management Development Programme
- Procurement training
- Media training
- High Performance in Safety Critical Team (for our RIB Crews)
- PWC Jetski training (see photos).



Images: PWC Jetski training course taking place



Images: Electrofishing for Operations and Research course in action

Derformance management

In 2019, a Performance Management Development System (PMDS) design team of 14 volunteer staff was created with the objective of delivering a new performance management system for IFI. The new Performance and Development Review (PDR) process was rolled out to staff in Q1 2021. The rollout was delivered by six PDR design team members and included 18 virtual staff training sessions and five virtual line manager training sessions. We created an online module for any staff member or line manager who was unable to attend the virtual training. This was made available on

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the Safety Hub. The primary focus of this new PDR is to ensure conversations between the line manager and staff continue to take place throughout the course of the year.

Health and Safety

As an organisation, IFI works in collaboration with our people to support their development and performance. In 2021, IFI attained KeepWell Mark Accreditation from the Irish Business and Employers Confederation (Ibec). The process assesses our commitment to leadership, mental health, absence management, health and safety, a smoke-free working environment, physical activity, healthy eating and an avoidance of intoxicants. The accreditation process involved rigorous auditing with over 90 criteria, and included staff and management focus groups.

We are now recognised and included in the 'Top 100 Companies Leading in Wellbeing' index. The index acknowledges companies across Ireland who are leading the way on employee wellbeing and who, through their commitment to instilling a best practice approach, have made a lasting impact on their employees and on the business community.

We intend to build on our initial accreditation with a view to continuously improving in our commitment to employee wellbeing.

Logistics

COVID-19

The work of IFI, all other State Agencies and society generally were fundamentally impacted by the COVID-19 pandemic. From IFI's perspective, the challenge was pivoting the organisation from one which primarily worked in offices and the field, to one which worked from home, and in the field when permitted.

Sourcing of COVID-19 personal protective equipment (PPE) remained a challenge in Q1, but global supply chains improved during the year and costs reduced in line with the improved availability of products. The spread of COVID-19 continued in 2021 with the evolution of a new variant in Omicron, which meant that the challenges of the pandemic persisted.

The majority of the logistics team continued to work from home through the year, with no impact on the quality of the service provided to the organisation. However, three members of the team continued working on site in IFI's headquarters, Lake Drive in Citywest, Dublin and logistics facility, Castle House. This was to manage the sourcing and supply of PPE and associated equipment required to ensure IFI could continue to operate in some capacity, depending on the particular restrictions in place at the time.

The total expenditure on PPE and other materials related to COVID-19 sourced by the logistics team from January to December 2021 amounted to &89,000. The materials included: antigen testing kits, face masks, hand sanitising gels and wipes, face shields, protective glasses, protective aprons, gloves, coveralls, waste bags and driver screens. In Q1, the logistics team published a tender for antigen testing kits in anticipation of the need for the continued and increased use of these. The tender was awarded in Q2, and the total spend on antigen testing kits for the year amounted to &72,000 (included in the aforementioned &89,000).





The logistics team worked closely with the IFI COVID-19 Taskforce and IFI's Health and Safety Executive to provide appropriate equipment and to develop and implement new COVID-19-compliant Standard Operating Procedures (SOPs).

During the pandemic, elements of the logistics team's 2021 business plans had to be deferred. It was towards the latter part of the year, when a new form of 'normality' emerged, that the focus could once again shift toward delivering on the 2021 business plan and, in this regard, a number of the objectives were achieved.

Vehicles

IFI's overall fleet number grew to 189 in 2021 with the addition of seven new vehicles, sanctioned by the board to replace seven long-term hire vehicles. A further 15 older vehicles were selected for replacement with new fleet, including five new electric vehicles (EVs). All 22 new vehicles were delivered in Q1/Q2, and the seven long-term hire vehicles were returned to the supplier. A decision was taken to retain the 15 IFI vehicles being replaced for 2021 to reduce the increased dependency on short-term hire vehicles due to reduced vehicle occupancy. The 15 vehicles retained are now due for sale in 2022.

The logistics team continued to monitor the fleet using telemetrics software to better understand utilisation and more efficiently deploy vehicles across the organisation. The team also supported ongoing IFI operations through the provision of additional hire vehicles as required during the year.

Electric vehicles

As part of IFI's commitment to reducing its carbon emissions and achieving its emissions targets, the CEO has requested that for all future fleet requirements, electric or hybrid vehicles must be considered ahead of petrol or diesel options. Petrol or diesel vehicles will only be considered where there is an operational requirement which cannot be met by an electric or hybrid vehicle.

As part of the ongoing process of decarbonising IFI's fleet, a review was undertaken with the aim of removing diesel vehicles from the fleet. Several existing IFI vehicles were earmarked for replacement and an order was placed in Q4 for a further 32 EVs comprising 12 Peugeot e-Expert vans and 20 Kia Niro electric cars.

The delivery of the 32 EVs is due in Q1 and Q2 2022 and upon delivery will increase the IFI EV fleet to 45. A tender process for the installation of EV charging infrastructure at IFI premises is due to be published in Q1 2022. The installation of this charging infrastructure will greatly enhance IFI's capability to move to EVs.

IFI facilities in Citywest

IFI's headquarters on Lake Drive, Citywest has remained mainly underoccupied since March 2020 as a result of staff being mandated to work from home where possible due to the pandemic. However, IFI's adjacent logistics facility, Castle House, has been fully functional during the entire period.

The decision was made to continue limited access to Lake Drive to a need-only basis and all nonessential Heating, Ventilation and Air Conditioning (HVAC) systems have been shut down or run at minimal levels both to save money and also to reduce unnecessary emissions. Despite the reduced utilisation of both buildings during 2021 as a result of staff working from home, all essential maintenance continued in 2021 as planned. As part of IFI's commitment to reduce energy consumption and CO2 emissions, electricity and gas utilisation monitors were installed in both buildings and the results from this monitoring will be used to inform a more detailed energy consumption strategy.

Following a tender process in 2020, a new facilities management company was appointed to service both Lake Drive and Castle House.

Boats

IFI have 46 boats that are certified biannually by the Marine Survey Office (MSO). During the year the logistics team worked with other IFI teams and the MSO to ensure that all boats retained their certifications and were passed fit for service. In 2018/2019, IFI introduced 12 new fit-for-purpose sea-going RIBs to increase its operational presence at sea. Consequently, over the following years a number of RIBs, which were past their Useful Economic Life (UEL) with IFI, were disposed of.

Safety

During 2021, the logistics team continued to work with our trailer maintenance partners, Murcon Engineering Ltd., on a full-service schedule for IFI's trailer fleet.

A full reissue of workwear and rainwear commenced in Q2 to all staff on a need-only basis. A tender for replacement life jackets and personal locator beacons was concluded in Q4 with delivery expected in Q1 2022. Three members of the logistics team acted as COVID-19 safety leads during the period.

Tenders

Several major tenders were awarded or published in 2021 including: vehicle telemetrics, antigen testing kits, surveillance drones, trail cameras, boat training, personal flotation devices (PFDs) and personal locator beacons (PLBs).

The logistics team provides support and guidance on the e-tendering process to all sections within IFI throughout the year, including the publishing and award of tenders.

Environment

The logistics team has played an active part in IFI's effort to reduce its carbon footprint and meet its emissions targets in 2021 through participation in projects such as: EV deployment, ongoing assessment of vehicle utilisation, and the active management of both Citywest properties.

The temporary decommissioning of IFI's headquarters on Lake Drive has resulted in a reduction in fuel bills and CO2 emissions and the logistics team will continue in its efforts to reduce our carbon footprint. The addition of a further 32 EVs to the fleet will further reduce the organisation's dependency on fossil fuels.

Recruitment

Following an internal recruitment campaign, in Q2 a Procurement Officer was appointed, a role that will form a vital part in improving the procurement processes of the organisation.

5. Supporting our work: finance, information and transparency

Finance

In line with our Corporate Management high level objective, we seek to foster a culture of value for money and sustainability while evaluating our performance in a measurable, transparent and accountable manner, in line with the <u>Public Spending Code</u>.

Value for money and sustainability

We completed four internal audits during 2021, in the areas of energy usage, research and development, HR and workforce planning and internal financial controls.

The overall IFI budget was agreed by the Board, and management accounts based on this budget were monitored on a monthly basis by the Board, Senior Leadership Team and budget holders. A new dashboard facility was rolled out by the Finance Director to enable improved analysis of monthly accounts by the budget holders. Significant progress was also made on paperless journals during 2021, with adoption expected early in 2022.

The use of business cases and the tender process are the key drivers in attaining value for money. IFI's Finance division undertake reviews of various aspects of the business to establish value for money.

Capital appraisals and capital effectiveness of capital items is carried out pre and post-purchase respectively.

Best practice corporate and environmental governance

The adherence to the Code of Practice for the Governance of State Bodies was reviewed by our parent department and was found to be compliant.

There were no significant issues in the management letter from the Comptroller and Auditor General C&AG for the 2020 financial year.

All four internal audits in 2021 listed above achieved a satisfactory assurance from ASM Ltd, IFI's internal auditors.

In agreement with the Department of the Environment, Climate and Communications, the drawdown of funds from the 2021 allocation to IFI were reduced by just over €6m to take account of funds already provided and retained by IFI. This was to ensure that the funding arrangements were in line with the 'Circular 13/2014 (Management of and Accountability for Grants from Exchequer Funds) as regards the provision in relation to matured liabilities.



Information and transparency

Freedom of Information

As a public body, Inland Fisheries Ireland is subject to the provisions of the Freedom of Information Act 2014. We received 49 Freedom of Information (FOI) requests during 2021. Of these requests, eight were granted in full, 11 were part-granted, eight were withdrawn and a further two were handled outside the FOI process. One request was transferred to another agency and 19 FOI requests were refused. The majority of refusals were made where: records did not exist, release would harm or prejudice the functions of a public body, where records contained commercially sensitive information or where records were already in the public domain. There were two outstanding requests at the end of 2021. We received two requests for internal review in 2021 and there were no requests which were subject to appeal to the Office of the Information Commissioner.

Access to Information on the Environment (AIE)

The European Communities (Access to Information on the Environment) Regulations 2007-2018 (S.I. No. 133 of 2007, S.I. No. 662 of 2011, S.I. No. 615 of 2014 and S.I. No. 309 of 2018), provide legal rights to those seeking access to information on the environment from public authorities. Subject to certain specific exceptions, information relating to the environment held by, or for, a public authority must be made available on request to any person.

Inland Fisheries Ireland received 17 AIE requests in 2021, a marked increase from the four received in 2020. Of these requests, five were granted in full, three requests were part-granted and six were refused on the basis that the requested information was not held by Inland Fisheries Ireland, or was subject to ongoing legal proceedings. One request was refused and transferred to another Public Authority who held the required environmental information. We received two requests for internal appeals, one of which was due to it not being responded to within the one-month statutory timeframe. There was one request which was subject to appeal to the Office of the Commissioner for Environmental Information. There were two outstanding requests at the end of 2021.

Parliamentary questions and Oireachtas queries

As part of our commitment to Dáil information flow, we supplied material for 63 parliamentary questions (PQs) answered by the Minister in 2021.

Protected disclosures

Section 22 of the Protected Disclosures Act 2014 requires the yearly publication of a report relating to the number of protected disclosures made in the preceding year and any actions taken in response to such disclosures. There were no protected disclosures in 2021.

Complaints

Inland Fisheries Ireland received 18 formal complaints for the year ending 31 December 2021. These related to stock management, access to angling, pollution, interactions with IFI and social media postings.

Staff awareness

eLearning modules on whistleblowing and managing conflicts of interest were delivered to all staff in Q4 of 2021.

Data protection

The development of Data Protection Impact Assessments (DPIAs) is an important mechanism for IFI to demonstrate accountability and enables the organisation to understand and manage personal data processing risks. DPIAs also facilitate adherence to the fundamental concepts of data protection by design and data protection by default (Article 25 GDPR). The projects for which DPIAs were conducted in 2021 included operational drones and pilot programme for Body Worn Cameras.

IFI continued the rollout of online data protection training to inductees throughout 2021 which included three learning modules: GDPR Awareness Training, Information in the Workplace and Information Security Awareness Training.

The Data Protection Officer (DPO) issued communications to staff on data protection issues regarding the processing of employee health data (COVID-19). IFI recorded three data breaches during 2021, one of which rose to the level of mandatory reporting to the Data Protection Commission (DPC). These breaches occurred as a result of an accidental disclosure/human error and malicious intent. IFI received three Subject Access Requests (SAR) for copies of personal data pursuant to Article 15 of the GDPR for the year ended 31 December 2021.

Glossary

Term	Description	
АА	Appropriate Assessment	
Acoustic Telemetry	Tagging fish with sound-emitting devices that are detected by listening stations	
Algal bloom	The overgrowth of microscopic algae or algae-like bacteria in fresh, salt, or brackish waters	
ARC	Audit and Risk Committee	
C&R	Catch-and-release	
Citizen science	The collection of data relating to the natural world by members of the general public, typically as part of a collaborative project with professional scientists	
Coarse fishing	Any freshwater fish other than salmon and trout.	
DAF	Dormant Accounts Fund	
DECC	Department of the Environment, Climate and Communications	
DPIA	Data Protection Impact Assessments	
DPO	Data Protection Officer	
Elasmobranchs	A group of marine fish that have cartilage-based skeletons e.g. sharks, rays, and skates	
Electrofishing	A fishing technique that uses direct electricity to affect the movements of nearby fish so that they swim toward the current, where they can be caught; this technique is commonly used by scientists to survey rivers and assess what fish are present	
ERBD	Eastern River Basin District	
EV	Electric vehicle	
Finfish aquaculture	Farming of fish with fins (fish farming)	
Finnock	Sea trout that migrates to sea between April and June, and returns to freshwater to spawn after the summer migration	
Fish stocks	The living resources in a particular fish species community or population that are self-sustaining.	
Great Western Lakes	The seven lakes within the 'western lakes' groupings are: Loughs Corrib, Mask, Carra, Cullin, Conn, Sheelin and Arrow	
Grilse	A salmon that has returned to fresh water after a single winter at sea	
Hydroacoustics	The study and use of sound in water. Hydroacoustics also describes the use of sound (sonar) to monitor fish and other underwater features. An array of hydroacoustic receivers is a series of listening stations, listening for fish tagged with an acoustic (sound transmitting) tag	
IFI	Inland Fisheries Ireland	
Kelt	A salmon that has recently spawned and is usually in poor condition	

NASCO	North Atlantic Salmon Conservation Organisation	
NPWS	National Parks and Wildlife Service	
MDP	Management Development Programme	
MSU	Mobile Support Unit	
NIS	Natura Impact Statements are reports comprising the scientific examination of a plan or project and the relevant European Site or European Sites, to identify and characterise any possible implications of the plan or project individually or in combination with other plans or projects in view of the conservation objectives of the site or sites, and any further information including, but not limited to, any plans, maps or drawings, scientific information or data required to enable the carrying out of an Appropriate Assessment.	
NSAD	National Strategy for Angling Development (NSAD) scheme	
NWRBD	North Western River Basin District	
OCAG	Office of the Comptroller and Auditor General	
ORIS	Outdoor Recreation Infrastructure Scheme	
OPW	Office of Public Works	
Parr	A young salmon (or trout) between the stages of fry and smolt, distinguished by dark rounded patches evenly spaced along its sides.	
PDR	Performance and Development Review	
PMDS	Performance Management Development System	
РМО	Projects Management Office	
PPE	Personal protective equipment, commonly associated with COVID-19 safety measurements	
PV/Photovoltaics	The direct conversion of light into electric power using semiconducting materials such as silicon; used in panels to generate electricity for lighting etc.	
PWC	Personal Water Craft such as a kayak or jetski	
R&D	Research and development	
RBD	River Basin District	
River hydromorphology	The physical characteristics of a river e.g. flow regime, sediment transport. Examples of alterations to natural hydromorphology are channelisation and man-made weirs	
SAR	Subject Access Request	
SEAI	Sustainable Energy Authority of Ireland	
SERBD	South Eastern River Basin District	
Smolt	A young salmon (or trout) after the parr stage, when it becomes silvery and migrates to the sea for the first time	
Spring salmon river	A river that receives salmon between January and May. These salmon are generally larger as they spend more than one winter at sea	

SRBD	Shannon River Basin District
SSTRCPF	Salmon and Sea Trout Rehabilitation Conservation and Protection Fund
State fisheries	Inland Fisheries Ireland owns a wide variety of fisheries in locations all across Ireland, where there is a fishery, there is a right to fish and Inland Fisheries Ireland owns the fishing rights to a wide range of these fisheries in Ireland.
SWRBD	South Western River Basin District
TRaC	Transitional and coastal waters
Transitional waters	Waters that are influenced by both tidal and freshwater flows e.g. estuaries, fjords and lagoons
WFD	Water Framework Directive: an important piece of environmental legislation which aims to improve water quality. It was given legal effect in Ireland by the European Communities Regulations 2003
WRBD	Western River Basin District

Appendices

Appendix A: Audit and Risk Committee Annual Report 2021

Appendix B: Statement of Internal Control

Appendix C: Financial Statements 2021

Appendix A: Audit and Risk Committee Annual Report 2021

1.1 Foreword

Welcome to Inland Fisheries Ireland's Audit and Risk Committee (ARC) 2021 Annual Report.

Inland Fisheries Ireland, like many other organisations, found 2021 to be a particularly challenging year. The impact of COVID-19 was significant and seen most acutely on operations and service delivery.

Given the ongoing pandemic, the Committee continued to meet remotely and to focus on the oversight of: the organisation's systems of risk management, compliance audits, policy review, provision of assurance and the review of management accounts, budgets, and financial statements in advance of these being presented to the Board of IFI.

IFI continues to implement the Code of Practice for the Governance of State Bodies 2016 and completes an annual review of compliance by the Department of the Environment, Climate and Communications (DECC).

I would like to take this opportunity to thank my colleagues on the Committee, Ms Fiona Walsh, Ms Marie Louise Heffernan, Prof. Frances Lucy, and Mr Patrick Gibbons for their dedicated work and commitment during a difficult year.

I would particularly like to thank the Chairman of the Board, Mr Fintan Gorman, for all his support during my time as Chair of the Committee and indeed all Inland Fisheries Ireland staff who are responsible for delivering the important work of inland fisheries protection, conservation and development.

Ms Bernadette Orbinski Burke

Chair of the Audit and Risk Committee

January 2022

1.2 Control measures implemented during COVID-19

IFI COVID-19 Task Force

The IFI COVID-19 Task Force set up in 2020 continues to communicate Government-led guidance to staff in relation to administrative and operational protective measures. The work of Inland Fisheries Ireland is considered an essential service and the measures taken during 2021 included:

- **COVID-19 advice on an agile basis** to staff to reflect restrictions as they were modified by Government
- Video conferencing meetings and training continued
- **Personal Protective Equipment (PPE)** distributed to staff and products (gels and sprays) for workspace, equipment and vehicle sanitisation
- **Offices** equipped with Government COVID-19 signage, sanitisation stations, distancing instructions, special/extra outsourced cleaning arrangements continued
- Training on correct hand sanitising and donning/doffing masks continues to be delivered to new staff
- **COVID-19 compliance leads** 40 members of staff were assigned as location compliance leads
- Operations staff delivering services outdoors adhered to advice on **vehicle occupancy** in modified vehicles (fitted with polycarbonate panels)
- Health and Safety supports communicated and available on the IFI intranet:
 - IFI Vehicle Dual Occupancy FAQ
 - IFI Suspected COVID-19 Case Response Procedure
 - Level 5 Guide for Work in IFI
 - Working from Home during COVID-19 Policy
 - IFI Employee Safety Handbook: COVID-19 Version
 - Level 5 IFI COVID-19 Risk Assessment WRBD Stock Management
 - IFI Supplementary Delta COVID-19 SOP (Version 3 May 2021)
 - COVID-19 Risk Assessment Phased and Staggered Return to Work SOP (September 2021)
 - COVID-19 Risk Assessment Return to Regular Vehicle Occupancy SOP (September 2021)
- **COVID-19 related training** rolled out via the Safety Hub:
 - COVID-19 Induction Training
 - Hand Washing and Using Hand Sanitiser
 - Working from Home Health and Safety
 - Rapid Antigen Testing Self-Test
- HR-implemented staff wellbeing activities/measures.

1.3 Membership and meetings of the Audit and Risk Committee

Members of the Committee during 2021	Appointed		
Ms Bernadette Orbinski Burke (current Chair)	13/01/2021 (as Chair)		
Ms Fiona Walsh	16/04/2020		
Ms Marie Louise Heffernan	25/09/2020		
Prof. Frances Lucy	01/03/20211		
Mr Patrick Gibbons	25/03/2021 ¹		
¹ Date of re-appointment			

All members of the ARC are non-executive members. Each member serves for a period of three years on the Committee; this may be renewed for (but is limited to) a further three years or to the end of their term of office as a Board member.

Committee meetings during 2021

The ARC met eight times during the year:

- 10 February
- 19 March
- 20 April
- 9 June
- 20 July
- 6 October
- 4 November
- 1 December

Standing invitees:		
Francis O'Donnell, CEO		
Pat Doherty, Head of Finance and Energy Performance Officer		
Michael Martin, Finance Director		
Other invitees		
Fintan Gorman, Board Chair		
Roisin Bradley, Head of Human Resources		
Greg Forde, Head of Operations		
Suzanne Campion, Head of Business Development		
Dr Cathal Gallagher, Head of Research and Development		
Brian Beckett, Director, Eastern River Basin District		
Patrick Gorman, Director, Western River Basin District (Galway)		
Ian Carroll, ICT Manager		
Mary Walsh, Director, Western River Basin District (Ballina)		

The members met on one occasion, 20 July, without the executive present.

1.4 Comptroller and Auditor General

The Audit and Risk Committee has a professional working relationship with the Office of the Comptroller and Auditor General (OCAG). Following an invitation extended to the Auditor General (or their nominee) to attend a meeting of the committee, Ms Hillary Murphy, Senior Auditor and Ms Mary Henry, Deputy Director, attended the 9 June meeting of the Audit and Risk Committee.

Ms Murphy reviewed a paper issued to the Committee, the OCAG's 'Audit Planning Memorandum', as a useful tool in providing an overview of the OCAG approach to audit. Also, discussed were the recommendations in the Management Letter in respect of the audit of the 2019 Financial Statements. These included the status of credit cards and expense claim transparency. Ms Henry advised reporting on changes implemented and verifying that controls continue to work. She recommended the 'OCAG Audit Insights – Impact of COVID-19 on the Control Environment' guidance (published in September 2020) for organisations to use as a checklist in reporting controls implemented.

1.5 Internal Auditor

IFI's appointed Internal Auditor, ASM Ltd., attended six meetings of the Committee:

- 10 February
- 19 March
- 9 June
- 6 October
- 4 November
- 1 December

1.6 ARC programme of work 2021

The Committee engaged in the following activities and made recommendations on its findings to the Board.

1.6.1 Internal Audit programme 2021

The nature of the 2021 Internal Audit (IA) programme was approved by the Board in December 2020 Terms of reference of each of the IA reviews were agreed and the following risk-based audit reviews were conducted.

Review of energy usage

Corporate Risk Register – risk of non-compliance with national public service carbon reduction target resulting from ongoing operational requirements, financial constraints and SEAI baseline energy calculation (risk 7)¹.

Objectives:

- To consider the adequacy and effectiveness of the measures implemented by IFI to identify potential energy management programmes, across all elements of its activities and assets, including the process for selection and approval
- To consider the adequacy and effectiveness of the measures implemented by IFI to assess whether its estate remains fit for purpose from an energy usage perspective when considered in relation the level of utilisation of buildings, their energy usage levels and the implications of a further shift towards home and remote working post COVID-19
- To consider the adequacy and effectiveness of the measures implemented by IFI to calculate and report on the actions they are taking to improve their energy performance in line with SEAI guidelines, including mandatory annual statements and the requirement to display up-to-date energy certificates in buildings over 250m²
- To consider the adequacy and effectiveness of the measures implemented by IFI to ensure Green Procurement practices for equipment and facilities
- To consider the adequacy and effectiveness of measures implemented by IFI to engage staff in being part of the solution, including green initiatives and working practices

FINDING: Satisfactory [6 Recommendations: 1 x priority 2, and 5 x priority 3]

Review of Research and Development, including EU programmes

Objectives:

- To assess the adequacy and effectiveness of governance structures established by IFI in relation to the selection, prioritisation, and approval of Research and Development (R&D) projects
- To ensure that R&D projects are practical and applied and that R&D projects and the R&D strategy are directly aligned with IFI's strategic objectives

¹ IFI Corporate Risk Register as at January 2021

- To ensure that R&D projects deliver valuable, practical outcomes for the organisation and that appropriate structures are in place to consider these outcomes and IFI's corporate and operational response to them
- To ensure that IFI leverages the R&D work being undertaken by other organisations with overlapping responsibilities and challenges, and that appropriate formal and informal mechanisms are in place to enable research developments and outputs to be communicated amongst organisations
- To assess compliance of R&D projects with organisational, national, European and international reporting requirement
- To ensure that IFI's Research and Development projects are compliant with Section 7(7)(a) of the Inland Fisheries Act 2010.

FINDING: Satisfactory [4 Recommendations: 3 x priority 2, and 1 x priority 3]

Review of internal financial controls

Corporate Risk Register – risk of financial fraud (inappropriate use of resources such as assets) (Risk 19) and risk of failure to maximise value for money (Risk 20)².

Objectives:

- To ensure that IFI's policies and procedures are up to date
- To ensure that there are appropriate and effective key internal financial controls in place in the following areas:
 - Payments process
 - Procurement process
 - Capital assets
 - Financial reporting system
 - Payroll
 - Tax compliance

FINDING: Satisfactory [5 Recommendations: 5 x priority 3]

Review of Human Resources and Workforce Planning

Objectives:

- To ensure adequate and appropriate Human Resource policies and procedures are in place, subject to regular review and are being effectively communicated to staff in IFI
- To consider the adequacy and effectiveness of IFI's approach to recruitment and selection processes and ensure that recruitment undertaken during the year has been in accordance with existing policies and procedures

² IFI Corporate Risk Register as at January 2021

- To consider the adequacy of performance appraisal processes established for all IFI staff, to ensure these are conducted in a timely manner and that training and development requirements are identified as part of this process
- To consider the adequacy of policies and procedures established to manage staff absence, including return-to-work processes, support for staff returning from periods of absence and the regular monitoring and reporting of absence statistics
- To consider the adequacy of IFI's approach to workforce planning and HR's role in developing the workforce plan and, in particular, to ensure that the workforce plan is costed, based on input from HR and the wider business, and funded to reflect the new strategic requirements of the organisation. To ensure that mechanisms are in place to identify, monitor and review progress against the workforce plan.

FINDING: Satisfactory [12 Recommendations: 1 x priority 1, 5 x priority 2, 6 x priority 3]

Review of previous internal audit recommendations

An annual review of outstanding internal audit recommendations was undertaken and progress on unimplemented recommendations reported to the Committee.

Dormant Accounts Fund disbursement review

Objectives:

- To confirm what Dormant Accounts Funding (DAF) was received by IFI
- To provide a detailed breakdown of how those funds were spent, analysed by outcome i.e., the particular activities, projects, schemes and staff roles etc. that the monies were spent on;

to provide a detailed breakdown of how those funds were spent analysed by spend type i.e.,

whether the monies were spent on:

- Permanent IFI staff costs
- Temporary IFI staff costs
- Agency staff costs
- Project overheads or contributions to IFI overheads
- Project specific consumables
- Project specific equipment
- Third party services and supplies
- Grant funding to third parties
- Other categories
- In respect of the spend analysed under 'agency staff costs', to provide additional granularity in respect of the volume and value of transactions undertaken with third parties and to provide high level details of the recruitment, procurement or grant awarding mechanisms used in support of these categories of spend

- To confirm whether the projects identified and the categories of spend identified are consistent with the Dormant Funds Act, the Dormant Funds Action Plan and the information provided by IFI in bidding for these funds
- To capture the composition of the decision-making panels for the disbursement of these monies (with details of the recruitment to these positions) whether or not there was independent representation on the panel and, if so, how and by whom the independent members were recruited.

FINDING: Narrative feedback was provided to the Committee in relation to:

- High-level review of transactions with third parties, how IFI's grant award and tendering processes were applied to spend incurred under the DAF
- An assessment of the alignment of IFI expenditure relating to the two DAF funded measures, to the target DAF funding groups
- While activities were undertaken which clearly benefitted the DAF targeted groups, it was not always possible to demonstrate full alignment between every aspect of the expenditure incurred and the DAF targeted groups or to appropriately measure outcomes from the activities undertaken.

1.6.2 Draft Financial Statements 2020

In advance of presentation to the Board for adoption, at its meeting on 19 March 2021 the Committee conducted a review of:

- The draft Financial Statements for 2020
- The draft Statement of Internal Control for 2020
- The Governance Statement and Board Members' Report 2020

In its review of the financial statements the following were considered:

- Accounting policies, completeness of financial statements, anti-fraud policy and that losses are properly recorded and accounted for
- Suitable processes are in place to ensure that regularity, probity and propriety is achieved
- Issues raised by the external auditor have been comprehensively and appropriately dealt with
- The financial statements present fairly the financial position of IFI
- The comprehensiveness and meaningfulness of IFI's Statement on Internal Control and review of the Letter of Representation before issue.

1.6.3 Risk management

The ARC continued its risk management review work. Key aspects of the risk framework were considered by the Committee:

- Review of the organisation's Risk Management Policy and Procedure
- Consideration of IFI's Corporate Risk Register
- High level review of various organisational risk registers:

- Health and Safety Risk Register
- Communications Risk Register
- Salmon Management Risk Register
- Project Management Office (PMO) Risk Register
- Compliance Risk Register.

1.6.4 Review of effectiveness of the IFI Audit and Risk Committee

The review of effectiveness of the IFI Audit and Risk Committee did not take place as scheduled and will be completed in Q1 of 2022.

1.6.5 Other areas considered by the Committee

- Tendering process for the appointment of Internal Audit services
- Review of the implications of COVID-19 on costs and operations in relation to IFI's seasonal officer recruitment campaign for 2021
- Briefing on IFI's **role in Sustainable Development** in respect of environmentally sensitive areas in planning decisions
- Briefing on cost/benefit and tender process surrounding a contract for weed removal at Lough Corrib
- Briefing on the value for money review of Fisheries Protection Patrols
- Review of IFI's Working Capital Contingency Fund
- Review of the work to **implement recommendations of the OCAG** arising from its audit of the 2019 Financial Statements
- Briefing on measures in place to protect the organisation from cyber attacks
- Review of legal advices obtained
- Review of IFI's vehicle insurance process
- Review of IFI's governance policies
- Review of the most recent management accounts at each meeting
- Review of the quarterly **supplementary pensions report**
- Update, review and adoption of the Internal Audit Terms of Reference (Charter)
- Review of the IFI financial procedures manual (SOP)

1.6.6 Priorities for 2022

- Ongoing review of Health and Safety and Operational risk associated with COVID-19
- Oversee the implementation of previous recommendations of the Internal Auditor
- Review the Statement of Internal Control (SIC) and the Annual Financial Statements for 2021 (Q1)
- Conduct a review of effectiveness of the Audit and Risk Committee (Q1)
- Ongoing monitoring and review of cost saving, accountability and compliance measures

- Oversight of IFI's compliance with the Code of Practice for the Governance of State Bodies 2016
- Approve a risk-based Internal Audit Plan for 2022.

1.7 Conclusion

The Audit and Risk Committee is satisfied that, in general, there are adequate systems of control across the organisation and makes its recommendation in respect of same to the Board.

The members of the Committee would like to thank the staff of IFI for their professionalism and commitment to the high standards of governance of IFI throughout what continues as a particularly challenging time for society.

Appendix 1 – Internal audit assurance ratings and priority levels

Level of assurance	Definition
Satisfactory	<u>Overall</u> there is a satisfactory system of governance, risk management and control. While there may be some residual risk identified, this should not significantly impact on the achievement of system objectives.
Limited	There are significant weaknesses within the governance, risk management and control framework which, if not addressed, could lead to the system objectives not being achieved.
Unacceptable	The system of governance, risk management and control has failed or there is a real and substantial risk that the system will fail to meet its objectives.

In prioritising recommendations for action, we have used the following definitions:

Priority rating	Definition
1	An issue which requires urgent management decision and action without which there is a substantial risk to the achievement of key business / system objectives, to the reputation of the organisation, or to the regularity and propriety of public funds.
2	An issue which requires prompt attention, as failure to do so could lead to a more serious risk exposure.
3	Improvements that will enhance the existing control framework and / or represent best practice.

Appendix B: Statement of Internal Control and Financial Statements Year End to 31st December 2021

1. General Information

Address	3044 Lake Drive Citywest Business Campus
	Dublin 24, D24 CK66
Bank	Bank of Ireland
	College Green
	Dublin 2, D02 VR66
Auditor	The Comptroller and Auditor General
	3A Mayor Street Upper
	Spencer Dock
	Dublin 1 D01 PF72
Solicitors	George Maloney & Co
	Solicitors
	6 Farnham Street
	Cavan
	Co. Cavan, H12 V658
	Arthur Cox,
	Earlsfort Terrace
	Dublin 2, D02 T380
	Liam Keane & Partners Solicitors
	The Old Toll House
	Dunshaughlin
	Co. Meath A85 DR68
	Patrick J Durcan & Co.
	Solicitors
	James Street
	Westport
	Co. Mayo F28 KC52

Solicitors continued:

MacHale Solicitors Pearse Street Ballina, Co Mayo F26 K7C7

D.G. O'Donovan & Co 5th Floor, Riverpoint Lower Mallow Street Limerick V94WC6A

John M Forde & Son 2, Montpellier Terrace Sea Road Galway H91 A6P3

Kelly & Ryan Solicitors Teeling Street Sligo F91 YH99 VP McMullin & Son Solicitors Donegal Street Ballybofey Co. Donegal F93 DE63

Mason Hayes & Curran South Bank House Barrow Street Dublin 4 D04 TR29

James Reilly & Sons 4, Brighton Place Clonmel Co Tipperary E91 X9V2

Coakley Moriarty Solicitors New Road Kenmare Co Kerry V93 N880

Kevin Quirke & Co

72 South Mall Cork T12 VX9A Fieldfisher Capel Building Mary's Abbey Dublin 7 D07 N4C6

Byrne Wallace Law Firm

88 Harcourt Street Dublin 2 D02 DK18

2. Governance Statement and Board Members' Report

The Board of Inland Fisheries Ireland was established under **Section 6** of the Inland Fisheries Act 2010. The functions of the Board are set out in **Section 7** of this Act. The Board is accountable to the Minister for the Environment, Climate and Communications and is responsible for ensuring good governance and that the principal functions of the agency as set out under **Section 7**, are performed. The Board performs this task by setting strategic objectives and taking strategic decisions on all key business issues. The regular day-to-day management, control and direction of Inland Fisheries Ireland are the responsibility of the Chief Executive Officer (CEO) and the senior management team. Their focus is on delivering on the broad strategic direction set out by the Board, ensuring that all Board members have a clear understanding of the key activities and decisions related to the entity, and of any significant risks likely to arise. The CEO acts as a direct liaison between the Board and management of Inland Fisheries Ireland.

2.1 Governance

The work and responsibilities of the Board are set out in its 'Statement of Board Responsibilities'. Matters specifically reserved for Board decision are under a 'Schedule of Decisions Reserved' to the IFI Board of Directors'.

Standing items considered by the Board include;

- Declaration of interests
- Climate Action Plan
- Setting Board Strategy, in agreement with the Minister
- Reports from committees
- Financial reports/ management accounts
- Performance reports
- Reserved matters, and
- Risk

Section 46 of the Inland Fisheries Act 2010 requires the Board of Inland Fisheries Ireland to keep, in such form as may be approved by the Minister for the Environment, Climate and Communications (DECC) with consent of the Minister for Public Expenditure and Reform (DPER), all proper and usual accounts of money received and expended by it.

In preparing these financial statements, the Board of Inland Fisheries Ireland is required to;

- Select suitable accounting policies and apply them consistently,
- Make judgements and estimates that are reasonable and prudent,
- Prepare the financial statements on a going concern basis unless it is inappropriate to presume that it will continue in operation, and
- State whether applicable accounting standards have been followed, subject to any
 material departures disclosed and explained in the financial statements.

The Board is responsible for keeping adequate accounting records which disclose, with reasonable accuracy at any time, its financial position and enables it to ensure that the financial statements comply with **Section 46** of the Inland Fisheries Act 2010. The maintenance and integrity of the corporate and financial information on Inland Fisheries Ireland's website is the responsibility of the Board.

The Board is responsible for approving the annual budget and business plan, this was completed at its meetings on 1 March and 30 June 2021, respectively.

The Board is also responsible for safeguarding its assets and for taking reasonable steps for the prevention and detection of fraud and other irregularities.

COVID 19

The dedicated COVID-19 Taskforce that was formed in 2020 continued to implement government advice, coordinating mitigations in terms of health and safety, operational, finance and compliance risk. The Board were kept apprised on the impact the pandemic was having on the organisation and its funding. COVID savings amounting to €159k were returned to the Department of Environment, Climate and Communications during 2021.

A budgetary review was undertaken by the Executive in July of 2021.

The Board considers that the financial statements of Inland Fisheries Ireland give a true and fair view of the financial performance of the financial position of Inland Fisheries Ireland at 31 December 2021.

2.2 Board Structure

The Board consists of a Chairperson and nine ordinary members, seven of which are nonexecutive members. Two members of the executive are represented, the CEO and the elected staff nominee (appointed by the Minister under **Section 13** of the Inland Fisheries Act 2010). The Chairman, non-executive members of the Board and the staff representative are appointed for an initial period of five years. With reference to the Circular 14/2020: Code of Practice for the Governance of State Bodies Annex (2020) on Gender Balance, Diversity and Inclusion, there were two members reappointed during the period for a period of 3 years, in line with this circular.

The Board meets no less than six times a year and met 13 times in 2021.

There were three resignations from the Board in 2022 and two in January 2023. Under s.18(1)d of the Inland Fisheries Act 2010, Minister Eamon Ryan TD removed the remaining members of the Board, on a 'no fault' basis, on 14 February 2023, appointing two persons under s.18(5) to perform the functions of IFI for a period of up to 6 months, pending the reconstitution of the IFI Board. These appointees were also tasked with progressing protected disclosures received by the organisation during 2022 and initiating an external review of governance within IFI.

There was a Board in place for the duration of these Financial Statements covering the year to 31 December 2021 and they had signed off on a draft of these Financial Statements, however as outlined in the above paragraph the Board was replaced on 14th February 2023 by the two Appointees under Section 18(5) Mr Barry and Mr Neely and they are now the signatories.

Position	Name	(Re-) Appointed	Nomination
Chairman	Fintan Gorman ¹	10/09/2018	Ministerial
Ordinary Member	Frances Lucy ³	07/12/2020	Joint Oireachtas
Staff Nominee	Sean Coady 1	07/12/2020	Staff
Ordinary Member	Patrick Gibbons ^{2,3}	16/02/2021	Joint Oireachtas
Ordinary Member	Bernadette Orbinski Burke ^{2,3}	01/07/2021	Ministerial
Ordinary Member	Michael McGreal 1	22/03/2019	Ministerial
Ordinary Member	Seamus Boland 5	22/03/2019	Ministerial
Ordinary Member	Marie Louise Heffernan 4	01/05/2019	Joint Oireachtas
Ordinary Member	Fiona Walsh 4	12/07/2019	Ministerial
Executive	Francis O'Donnell	29/11/2020	CEO

2.3Board Member Listing

1 Re-appointed for second term of 5 years

²Terms of office ending in 2021: P. Gibbons (January 12th, 2021); B. Orbinski-Burke (June 30th, 2021)

³Re-appointed for second term of 3 years

4 Appointed for 5-year term

⁵ Appointed for shorter term of 3 years, 8 months (closing out on previously incomplete term of office)

The Board has established and currently operates one standing committee, and four other sub-committees as follows;

Audit and Risk Committee (Standing): comprises five Board members. The role of the Audit and Risk Committee (ARC) is to support the Board in relation to its responsibilities for issues of risk, control and governance and associated assurance. The ARC is independent from the financial management of the organisation. In particular, the ARC ensures that the internal control systems including audit activities are monitored actively and independently. The ARC reports to the Board after each meeting, and formally in writing annually, in the form of the 'Annual Report of the Audit & Risk Committee'.

Members of the Audit and Risk Committee are:

Name	(Re-)Appointed	Term
Bernadette Orbinski Burke ^{1, 2}	27/06/2019	2 nd 3-year term
Marie Louise Heffernan	25/09/2020	1# 3-year term
Fiona Walsh	16/04/2020	1# 3-year term
Frances Lucy 1	27/09/2018	2 nd 3-year term
Patrick Gibbons 1,2	27/06/2019	2 nd 3-year term
	Bernadette Orbinski Burke ^{1, 2} Marie Louise Heffernan Fiona Walsh Frances Lucy ¹	Bernadette Orbinski Burke 1,2 27/06/2019 Marie Louise Heffernan 25/09/2020 Fiona Walsh 16/04/2020 Frances Lucy 1 27/09/2018

1 Re-appointed for second (or remaining) term of 3 years

²Board terms of office ending in 2021: P. Gibbons (January 12th, 2021); B. Orbinski-Burke (June 30th, 2021)

There were eight meetings of the ARC in 2021; the CEO, Head of Finance and Finance Director are standing invitees to each meeting.

Joint Fish Farm Working Group: this committee was formed in September 2016. This working group was established following a joint meeting between the Board of Inland Fisheries Ireland, the Trout Angling Federation of Ireland (TAFI) and the National Anglers Representative Association (NARA) in relation to the organisation's trout production facilities. Members of the Joint Fish Farm Working Group are:

Position	Name	(Re-) Appointed
Chair	Fintan Gorman	29/09/2016
Ordinary Member	Prof. Frances Lucy ¹	26/05/2021
Executive Member	Francis O'Donnell	02/11/2020
Executive Member	Mr Pat Doherty (Head of Finance)	29/09/2016
Executive Member	Dr Cathal Gallagher (Head of R&D)	29/09/2016
TAFI* Representative	Martin Kinneavy	29/09/2016
TAFI* Representative	Eamonn Moore	29/09/2016
NARA** Representative	Michael Callaghan	29/09/2016
NARA** Representative	Pat Foley	29/09/2016

* Trout Anglers Federation of Ireland

1 Re-appointed

^{**} National Association of Recreational Anglers

There was one meeting of the Fish Farm Working Group in 2021.

Strategic Human Resources Sub-committee: this committee was formed in August 2019, with the primary purpose of overseeing the development of a Strategic Human Resources Plan. Members of the Strategic Human Resources Sub-committee are:

Position	Name	Appointed
Chair	Seamus Boland	06/08/2019
Ordinary Member	Michael McGreal	06/08/2019
Executive Member	Francis O'Donnell (CEO)	29/11/20201
Executive Member	Roisin Bradley	27/11/2019

Date of appointment as CEO

There were three meetings of this sub-committee during 2021.

Property Sub-committee: this committee was formed in November 2020, with a primary purpose to oversee the preparation and delivery of an annual Property Optimisation Plan for IFI.

Position	Name	Appointed	Departure
Ordinary Member	Michael McGreal	12/11/2020	Not applicable
Executive Member	Sean Coady	12/11/2020	Not applicable
Ordinary Member	Patrick Gibbons	26/05/2021	Not applicable
Executive Member	Francis O'Donnell (CEO)	29/11/2020	Not applicable

There was five meeting of this sub-committee during 2021.

2.4 Schedule of Attendance, Fees and Expenses

A schedule of attendance at the Board and committee meetings for 2021 is set out in <u>Note 7</u> of the Financial Statements for 2021. This includes the fees and expenses received by each member: Two Board members, Professor Frances Lucy and Sean Coady did not receive a Board fee under the One Person One Salary (OPOS) principle.

2.5 Key Personnel Changes in 2021

Dr. Ciaran Byrne left Inland Fisheries Ireland on 10 September 2021.

2.6 Disclosures Required by the Code of Practice for the Governance of State Bodies 2016

The Board is responsible for ensuring that IFI has complied with the requirements of the Code of Practice for the Governance of State Bodies ('the Code'), as published by the Department of Public Expenditure and Reform in August 2016. The following disclosures are required by the Code.

Employee Short-term Benefits

There were 69 employee short-term benefits in excess of \in 60,000. See <u>Note 6</u> of the Financial Statements.

Consultancy Costs

Consultancy costs include the cost of external advice to management and exclude outsourced 'business-as-usual' functions. See <u>Note 5a</u> of the Financial Statements.

Travel and Subsistence Expenditure

Travel and subsistence expenditure is categorised as follows:

Remuneration and Other Pay Costs

	2021	2020 €
	€	
Travel & subsistence - National *	715,935	641,770
Travel & subsistence – International	8,908	9,256
	724,843	651,026

No international travel and subsistence payments were made for travel undertaken by Board members.

Legal Costs and Settlements

Legal Fees are for prosecution cases under fisheries legislation and corporate legal advice. Total legal costs in 2021 for prosecution cases were €235,508. IFI instigated a Judicial Review of the Granting of an Aquaculture Licence - Shot Head, Bantry Bay, Co. Cork, costs for this process during 2021 were €90,659. In 2021, IFI paid 1 ex-gratia payment, 5 redundancy payments and 5 settlements totalling €65,232.

Hospitality Expenditure

	2021	2020
	€	€
Staff hospitality	7,100	4131
Client hospitality	2,050	0
	9,150	4,131

Statement of Compliance

The Board has adopted the Code of Practice for the Governance of State Bodies (2016) and has put procedures in place to ensure compliance with the Code. Inland Fisheries Ireland was in full compliance with the Code of Practice for the Governance of State Bodies for the period 2021.

On Behalf of IFI

Seamus Neely

9.3.2023

Date

3. Comptroller and Auditor General Report



Ard Reachtaire Cuntas agus Ciste Comptroller and Auditor General

Report for presentation to the Houses of the Oireachtas

Inland Fisheries Ireland

Opinion on the financial statements

I have audited the financial statements of Inland Fisheries Ireland for the year ended 31 December 2021 as required under the provisions of section 46 of the Inland Fisheries Act 2010. The financial statements comprise

- the statement of income and expenditure and retained revenue reserves
- the statement of comprehensive income
- the statement of financial position
- the statement of cash flows, and
- the related notes, including a summary of significant accounting policies.

In my opinion, the financial statements give a true and fair view of the assets, liabilities and financial position of Inland Fisheries Ireland at 31 December 2021 and of its income and expenditure for 2021 in accordance with Financial Reporting Standard (FRS) 102 — The Financial Reporting Standard applicable in the UK and the Republic of Ireland.

Basis of opinion

I conducted my audit of the financial statements in accordance with the International Standards on Auditing (ISAs) as promulgated by the International Organisation of Supreme Audit Institutions. My responsibilities under those standards are described in the appendix to this report. I am independent of Inland Fisheries Ireland and have fulfilled my other ethical responsibilities in accordance with the standards.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Report on information other than the financial statements, and on other matters

Inland Fisheries Ireland has presented certain other information together with the financial statements. This comprises the annual report, the governance statement and Board members' report, and the statement on internal control. My responsibilities to report in relation to such information, and on certain other matters upon which I report by exception, are described in the appendix to this report.

Governance concerns

The Chairperson of the Board of Inland Fisheries Ireland resigned in April 2022. A new Chairperson was appointed in May 2022 and resigned in January 2023. There were a further four resignations from the Board during 2022 and in January 2023. As a result, the Board became unable to reach the required quorum to meet and to make decisions.

In accordance with the provisions of the Inland Fisheries Act 2010, the Minister for the Environment, Climate and Communications removed the remaining Board members on a 'no fault' basis in February 2023, and appointed two persons for a period of up to six months to perform the functions of Inland Fisheries Ireland pending the reconstitution of the Board. These persons were also required to progress the handling of a number of disclosures received by Inland Fisheries Ireland during 2022, and to initiate an external review of governance within Inland Fisheries Ireland.

Report of the C&AG (continued)

Statement on internal control

The statement on internal control discloses information about a number of matters relating to cost effectiveness and value in the operation of a variety of Inland Fisheries Ireland functions, and other maters raised during the audit of the financial statements relating to financial controls and the conduct of public business.

Investigation of disclosures

A number of disclosures were made in 2022 to the Department of the Environment, Climate and Communications and to Inland Fisheries Ireland. These disclosures resulted in the commissioning of a number of reviews and reports. The statement on internal control outlines the status of these reviews at the date of signing of the financial statements.

Potential fraud report

Following an internal review, the Chief Executive reported a potential fraud to An Garda Síochána in 2022.

Uninsured vehicles

Due to an administration error, 16 vehicles leased by Inland Fisheries Ireland in 2021 were uninsured for a period of time. The matter only came to light when one of the vehicles was involved in a road traffic accident. Inland Fisheries Ireland anticipates that a legal action will be taken against it over the incident. The liability accruing from the incident is currently uncertain.

Change of Chief Executive's work base

In November 2021, the Chief Executive's normal place of work was changed from Inland Fisheries Ireland's headquarters in Dublin to the regional office in Ballyshannon. Any decision regarding the Chief Executive's terms of employment is a matter for the Board of Inland Fisheries Ireland. There is no contemporaneous written record of the proposal for the work location change or of its financial implications, or of a decision in that regard by the Board.

The Chief Executive claimed subsistence allowances totalling €5,416 in respect of attendances at meetings and events in Dublin on 29 occasions between November 2021 and 31 December 2022.

Search Mc Car by.

Seamus McCarthy Comptroller and Auditor General 29 March 2023

Responsibilities of Board members

As detailed in the governance statement and Board members' report, the Board members are responsible for

- the preparation of annual financial statements in the form prescribed under section 10 of the Inland Fisheries Act 2010
- ensuring that the financial statements give a true and fair view in accordance with FRS102
- ensuring the regularity of transactions
- assessing whether the use of the going concern basis of accounting is appropriate, and
- such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Following resignations from the Board in 2022 and 2023, the Minister for the Environment, Climate and Communications in accordance with the section 18 of the Inland Fisheries Act 2020 removed the remaining board members in February 2023 and appointed two persons for a period of up to six months to perform Inland Fisheries Ireland's functions pending the reconstitution of the Board. The two persons appointed under section 18 signed the financial statements on 9 March 2023.

Responsibilities of the Comptroller and Auditor General

I am required under section 10 of the Inland Fisheries Act 2010 to audit the financial statements of Inland Fisheries Ireland and to report thereon to the Houses of the Oireachtas.

My objective in carrying out the audit is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement due to fraud or error. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with the ISAs, I exercise professional judgment and maintain professional scepticism throughout the audit. In doing so,

- I identify and assess the risks of material misstatement of the financial statements whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- I obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal controls.
- I evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures.

- I conclude on the appropriateness of the use of the going concern basis of accounting and, based on the audit evidence obtained, on whether a material uncertainty exists related to events or conditions that may cast significant doubt on Inland Fisheries Ireland's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my report. However, future events or conditions may cause Inland Fisheries Ireland to cease to continue as a going concern.
- I evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I report by exception if, in my opinion,

- I have not received all the information and explanations I required for my audit, or
- the accounting records were not sufficient to permit the financial statements to be readily and properly audited, or
- the financial statements are not in agreement with the accounting records.

Information other than the financial statements

My opinion on the financial statements does not cover the other information presented with those statements, and I do not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, I am required under the ISAs to read the other information presented and, in doing so, consider whether the other information is materially inconsistent with the financial statements or with knowledge obtained during the audit, or if it otherwise appears to be materially misstated. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact.

Reporting on other matters

My audit is conducted by reference to the special considerations which attach to State bodies in relation to their management and operation. I report if I identify material matters relating to the manner in which public business has been conducted.

I seek to obtain evidence about the regularity of financial transactions in the course of audit. I report if I identify any material instance where public money has not been applied for the purposes intended or where transactions did not conform to the authorities governing them.

4. Statement of Internal Control

4.1 Scope of Responsibility

On behalf of IFI, I acknowledge the Board's responsibility for ensuring that an effective system of internal control is maintained and operated. This responsibility takes account of the requirements of the Code of Practice for the Governance of State Bodies (2016).

4.2Purpose of the System of Internal Control

The system of internal control is designed to manage risk to a tolerable level rather than to eliminate it. The system can therefore only provide reasonable and not absolute assurance that assets are safeguarded, transactions authorised and properly recorded, and that material errors or irregularities are either prevented or detected in a timely way.

The system of internal control, which accords with guidance issued by the Department of Public Expenditure and Reform (DPER), has been in place in IFI for the year ended 31 December 2021 and up to the date of approval of the financial statements.

4.3 Capacity to Handle Risk

IFI has an Audit & Risk Committee (ARC) comprising of five Board members with members skills sets incorporating; governance, legal, financial and audit expertise. The ARC met eight times in 2021. IFI has outsourced its internal audit function, and the Internal Auditor conducts a programme of work agreed with the ARC and approved by the Board.

The ARC has developed a Risk Management Policy which sets out the risk management processes in place and details the roles and responsibilities of staff in relation to risk. All senior staff, with their teams, are expected to work within this policy, to ensure that emerging risks and control weaknesses are notified and addressed accordingly, and to assume responsibility for risks and controls within their own area of work.

4.4 Risk and Control Framework

Inland Fisheries Ireland has implemented a risk management system which identifies and reports key risks and the management actions being taken to address and, to the extent possible, to mitigate those risks.

A risk register is in place which identifies the key risks facing Inland Fisheries Ireland and these have been identified, evaluated and graded according to their significance. The register is

reviewed by the ARC on a quarterly basis. The outcome of these assessments is used to plan and allocate resources to ensure risks are managed to an acceptable level.

The risk register details the controls and actions needed to mitigate risks and responsibility for operation of controls assigned to specific staff. I confirm that a control environment containing the following elements is in place;

- Procedures for all key business processes have been documented
- Financial responsibilities have been assigned at management level
- There is an appropriate budgeting system with an annual budget which is kept under review by senior management
- There are systems aimed at ensuring the security of the information and communication technology systems
- There are systems in place to safeguard assets, and
- Control procedures over grant funding to applicants have been implemented. These
 ensure adequate approval of grants and monitoring and review of grantees to ensure
 grant funding has been applied for the purpose intended.

4.5 Ongoing Monitoring and Review

Formal procedures have been established for monitoring control processes. Control deficiencies are communicated to those responsible for taking corrective action and to management and the Board. I confirm that the following ongoing monitoring systems are in place;

- Key risks and related controls have been identified and processes have been put in place to monitor the operation of those key controls and report any identified,
- Reporting arrangements have been established at all levels where responsibility for financial management has been assigned, and
- There are regular reviews by senior management of periodic and annual performance and financial reports which indicate performance against budgets/ forecasts.

4.6 Procurement

I confirm that IFI has procedures in place to ensure compliance with current procurement rules and guidelines. Inland Fisheries Ireland complied with those procedures with the following exceptions: during 2021 there were 18 purchases deemed non-compliant amounting to €80,124. None of these were over €25k.

4.7 Review of Effectiveness

I confirm that Inland Fisheries Ireland has procedures to monitor the effectiveness of its risk management and control procedures. Inland Fisheries Ireland's monitoring and review of the effectiveness of the system of internal financial control is informed by the work of the internal and external auditors, the Audit and Risk Committee which oversees their work, and the senior management within IFI responsible for the development and maintenance of the internal financial control framework.

COVID-19

COVID-19 continued to have a significant effect on the activities of Inland Fisheries Ireland (IFI) during 2021. Having a distributed workforce with more than two thirds of staff field based and the remainder either whole time office or quasi office/field depending on the time of year, increased the complexity of the response required to COVID-19 by management and staff of IFI. Some of the measures implemented introduced by IFI in 2020 and maintained in 2021 include:

- The 14 staff member task force continued to consider and implement Government guidance, review risks, determine the impacts on IFI's operations\administration and to communicate with staff.
- Texts and emails were sent to all staff outlining guidance and changes in work practices after each task force meeting.
- The IFI Employee Safety Handbook COVID-19, remained the key reference document for staff.
- Personal Protective Equipment (PPE) including masks continued to be distributed widely for staff and sanitising products for workspace, equipment and vehicles sanitisation.
- Promoting and facilitating home working arrangements remained the modus operandi for 2021 for all office-based staff. The 'Working from Home during COVID Policy' continued in force during 2021.
- Any outstanding ergonomic assessments were completed with staff who were now working from home and additional equipment supplied where required.
- Increased IT Security to bolster Desktop, Laptop and email antivirus security. Email security
 and Spam filtering services have also undergone significant enhancements, including
 software security patching and the upgrading of Office 2010 to Office 365, providing IFI
 users with additional collaboration functionality and security while working remotely.
- Review of controls throughout the period to ensure that they remained robust.
- Regular reviews by management, and briefings to the Audit and Risk Committee and the Board.

All controls continued to operate effectively throughout the period.

4.8 Internal Control Issues

I confirm that the Board concluded an annual review of the effectiveness of the internal controls for 2021 on 30th March 2022. The following weaknesses in internal controls were identified in relation to 2021 and require disclosure in the financial statements. A number of the issues already identified within IFI formed the basis of allegations by a third party to Minister Ryan on the 10th March 2022 and these are also dealt with below.

Dormant Accounts Funding (DAF) - One of the third party's allegations made to Minister Ryan as mentioned above stated "The Outreach programme has questionable practices where funding (around €1 million) has been drawn down from Dormant Accounts which should be used specifically for the disadvantaged and disabled. When questioned about this by the Board of Directors, it was passed over following an internal investigation by the executive." Prior to the allegation above the Dormant Accounts Fund process within IFI was the subject of an Internal Audit review in 2021 that looked at the matching\appropriateness of the projects to Dormant Account Fund criteria, including those mentioned in the allegation. The review focussed on 2019 and 2020 covering funding to the value of €924,070 (€1,180,253 for the period 2019-2021). The internal audit reviews main finding was that "while activities were undertaken which clearly benefitted the DAF targeted groups, there were shortcomings in IFI's approach which meant it was not always possible to demonstrate full alignment between every aspect of the expenditure incurred and the DAF targeted groups or to appropriately measure outcomes from the activities undertaken". The report found that in a sample of all the organisations IFI engaged with under the DAF programme "that in all instances it is possible to make a clear link to the target groups for DAF funding due to the nature of the organisations and the services provided, or based on the supporting evidence provided by Management." The following sample groups were reviewed by the Internal Auditors, Foroige, DEIS Schools, Specialised units within schools, Dochais Family Centre Clondalkin, Rehab Care, Local Sports partnerships, TUSLA - School Completion Programmes and TUSLA -STEPS School Completion the Programme in Limerick. In relation to the alignment with DAF projects criteria the Internal Auditors suggested that a proportion of the funds in relation to Leave No Trace €17,500 (2019 €7,500 and 2020 €10,000), The National Ploughing Championships €8,500, and The Visitor Safety Group €2,280 (2019 €1,129 and 2020 €1,151) be refunded. Considering the internal audits findings and its recommendation to refund a proportion of these funds, IFI in early December 2021 refunded all of these items in full. The Board of IFI believe that lessons have been learned and that new processes will be put in place that would correct the issues outlined by internal audit as in need of improvement, should similar funding opportunities arise in the future.

<u>Maugherow Sea Angling Club</u>. While not part of the allegation referred to above, the Maugherow Sea Angling Club funding of \leq 4,000 under the Angling for All measure, is assumed to be the angling club referred to in the media articles that have received considerable attention. The Board of IFI originally requested that an Internal Audit be carried out specifically of the granting of the \leq 4k to Maugherow Sea Angling Club in 2021, with the change in Internal auditors' appointment, the Internal Audit programme did not start until Q3 of 2022. The report is expected in Q1 of 2023. The allegations were that the club was not in existence at the time of the funding being granted.

Maugherow Sea Angling Club were a new club at the time of applying to Angling For All (AFA), for funding. IFI can confirm that Maugherow Sea Angling Club was set up in advance of applying for funds and were awaiting affiliation with the Irish Federation of Sea Anglers (IFSA). They were in the process of setting up a bank account and getting their memo and articles and tax clearance certificate arranged. The AFA scheme allowed for the setup of new clubs. However, iFI procedures only permit payment to entities that have bank accounts. The Angling Council of Ireland (ACI), the National Governing Body (the only angling NGB funded by Sport Ireland and to whom IFSA are affiliated) agreed to undertake the procurement, provide details of payment for items procured and claim on behalf of Maugherow Sea Angling Club.

Following grant post evaluation process, IFI confirm that Maugherow Sea Angling Club have a Club Constitution, are affiliated to IFSA, have a bank account and tax clearance certificate. The club have, since receiving the equipment, held events in conjunction with IFI and are looking to support relevant groups in South Donegal and the Sligo area.

<u>Aasleagh Lodge and Cottages.</u> Within the correspondence to the Minister of 10th March 2022 an allegation was also made stating "I believe there are questionable issues relating to the running of Aasleagh Lodge and associated cottages, but I'm experiencing difficulty in obtaining information from both the CEO and the executive."

Aasleagh Lodge is a 19th century Victorian country house, which has been in the ownership of Inland Fisheries Ireland since 2010, along with two additional self-catering cottages in the same Aasleagh complex.

Prior to 2022

In 2014, IFI decided to discontinue its direct management of Aasleagh Lodge and the two associated self-catering cottages as a consequence of both staff retirements and also because the complex had lost an average of €83k per annum for the previous four years. However, IFI have continued to directly manage the adjacent Erriff Fishery, where anglers can purchase a permit to fish.

IFI looked to sub-contract the running of Aasleagh Lodge and cottages to a third party in November 2014. Following a tender competition, a Contractor with extensive experience in the tourism and accommodation sector was appointed in April 2015 for a four year and 11 month period. However, this Contractor pulled out of the venture the following year. This led to legal costs in circumstances whereby IFI had to take possession of the properties under legal

advisement. It is understood that the venture did not make the returns that the Contractor had anticipated and the Contractor blamed the condition of the properties as a contributing factor. The loss for IFI for this period (2015/2016) was €14.5k.

As the two self-catering cottages were now vacant and lying idle, it was decided in April 2017 to investigate the possibility of another third party taking over the operation of the two cottages as short-term holiday lets, on a temporary basis. The rationale was that it was too late in the season to go through another 5 month tender process, the Lodge would require on site staffing which would take from the core field activities and the cottages were ideal for short term holiday lets and would not require a high level of manpower. In addition, revenue generated could offset the fixed costs associated with the Aasleagh properties and to ensure that the two self-catering cottages were being maintained and not falling into disrepair.

As it was close to the peak holiday season for 2017, the RBD Director sought expressions of interest from staff only that would enable the letting out of the cottages in the summer of 2017. This proved in hindsight to be a flaw in the process, external options should have been sought. Arising out of that process, an IFI staff member and their spouse were successful in becoming the lessees and they agreed to run the two cottages at Aasleagh on a temporary basis. The Board of IFI were made aware that the cottages may be leased to a member of staff. A formal lease was drawn up setting out the terms and conditions including Lessees being responsible for insurance, electricity costs and it also set out the apportionment of letting income between IFI and the Lessees. This couple had made it to the final 4 in the original tender to operate the full Aasleagh complex. There was agreement to continue for another year subject to vacating the cottages in the event of a sale.

In July 2017, the Board of IFI made the decision to put the Aasleagh complex up for sale. This had implications for the lessees and would also impact on going to tender for new lessees. As the sale of the property was the strategic direction of the Board, it had to be prioritized and this meant informing the incumbent lessees that at any given time IFI could serve them with 10 weeks' notice to wind up their letting operation of the cottages. If IFI were to go to the market at this time to replace the incumbent lessees, it would not be an attractive proposition that at any given time after appointment the new lessee could find (even after a week or month of operating) that they could be given 10 weeks' notice that the complex had gone to sale agreed.

In October 2017, following a tender process, KMS Galway were appointed as selling agents. Following subsequent discussions with the lessees that were now in situ, they agreed that they would vacate the premises, with a reasonable notice period of ten weeks, following the successful sale of the properties. This was agreed between both parties in September 2017 and again in September 2018. KMS Galway received a number of offers between 2017 and 2020 to purchase the Aasleagh properties. However, none of the offers progressed to a sale agreed status. At the December 2020 meeting of the Board of IFI, it was decided to remove the Aasleagh properties from the market to explore alternative options for its future use.

In early 2021, the board directed the CEO to go to tender and seek expressions of interest to evaluate the possibility of using the property as an education/outreach interpretive centre to showcase the challenges facing freshwater species under the conservation and protection remit of IFI. That feasibility study is now completed and is being evaluated by senior officials in DECC.

The lessee agreement continued throughout this period which included the COVID pandemic, another reason why coupled with the 10 weeks' notice, it would not have been practical to go to tender. In 2021, the Head of Finance received an offer from the former selling agent of Aasleagh to rent the Lodge for the summer of 2021. To ensure good corporate governance, two other quotes were sought to enable evaluation of a minimum of three competitive quotes: one from another letting agent and one from the existing lessees. The lessees' quote was deemed most economically advantageous to IFI.

In late August 2021, the lessees advised they were withdrawing their services. For the period 2017 to 2021 the total income generated by the letting of the cottages was \in 77,385 of which IFI received \in 23,994, the lessees received the balance \in 53,581 gross and from this figure the Lessees would have to pay taxes due and expenses of the operation of the cottages.

In December 2021, IFI initiated a formal process through the Government's e-tenders website, seeking expressions of interest from interested parties in Ireland and within the EU, to lease the properties for the purpose of short-term holiday lettings. The closing date for this process was January 21st 2022 but no expressions of interest were received. IFI subsequently advertised the letting of the property for the 2022 season in the Western papers and had a single response, the respondents let the cottages for the 2022 season. The income following this tender process to IFI was €5,000 similar to the average of the previous five years, it is understood the Lessees lost money.

Following an all-Department request for accommodation for Ukrainian refugees, IFI offered the premises at Aasleagh as they are now vacant. However, it appears that the remoteness of the location and the lack of serviced accommodation at Aasleagh made it unsuitable. IFI is still awaiting a final response from The Department of Children, Equality, Disability, Integration and Youth's on this matter.

IFI is awaiting approval from DECC to bring the Aasleagh project forward in line with the Feasibility report for its future use.

The Board requested at a meeting 2nd March 2022 that an Internal Audit review of the Aasleagh Cottages be carried out, this is almost complete and is due in Q1 2023.

<u>Uninsured vehicles</u>. Due to an administration error IFI vehicle Insurers were not advised of temporary additions to the fleet during 2021 thus leaving 16 vehicles uninsured. An accident occurred in 2021, it is expected that there will be legal action against IFI, the liability accruing to IFI is uncertain at this time. Legal advice was sought which said that there was little likelihood of a favourable decision for IFI at arbitration against the incumbent insurers.

In response to this incident a Fleet manager has since been appointed. The Fleet Manager took advice from several brokers and has implemented a new fleet insurance policy. This ensures that the use of all vehicles in the ownership of IFI, or hired, lent or leased to IFI are automatically covered, thus eliminating the risk of any IFI vehicle being uninsured in the future.

Protection function of IFI. Another allegation included in correspondence of 10th March 2022 to Minister Ryan was "Protection, which drains the IFI budget of €12.5 million but is ineffectual in terms of results. A manned protection force only becomes a deterrent if there is a risk of being caught." IFI's response to the Minister was as follows;

IFI's predominant remit is to protect, conserve and develop inland fisheries resource on behalf of the state and the citizens of Ireland. IFI has the statutory responsibility for the protection of Ireland's 74,000 km of rivers and streams together with 128,000 hectares of lake surface area. Our remit also extends to 12 nautical miles from the baselines for the protection of Atlantic salmon and bluefin tuna. We have a workforce of 312 staff which was reduced from approximately 550 staff as a result of the last economic downturn.

IFI's remit is extensive in that we protect all freshwater fish species, migratory species such as Atlantic salmon, seatrout, and European eel, the latter being highly endangered. IFI are also responsible for the licencing and management of Ireland's native commercial oyster fishery. In recent years IFI has been charged with the protection of the recreational bluefin tuna fishery which places significant demands on resources which corresponds with one of our busiest protection periods for other migratory and vulnerable species.

On average IFI undertakes and successfully prosecutes in the region of over 100 prosecution cases per annum. In the last five years IFI have prosecuted 407 cases for fishery offences and

has successfully taken 99 prosecutions for environmental offences mainly related to water pollution. On average IFI issues 500 cautions and in excess of 200 fixed charged penalty notices per annum.

<u>Management of invasive weed</u>. Included in the above communication was a criticism, 'Taxpayer funds state agency's €5 million mistake' of IFI's management of an invasive species of aquatic weed (Lagarosiphon major) in Lough Corrib. In response to this criticism, which poses a significant reputational risk to the organisation, IFI sent the response below to the Minister addressing the issues raised in relation to IFI's management of aquatic weed in the West of Ireland.

Lagarosiphon major, also known as curly water weed, was first recorded in Lough Corrib in 2005. Lagarosiphon is well adapted to environmental conditions in Lough Corrib and has a number of competitive traits that provide it with an advantage over native plants. The Central Fisheries Board (CFB) study, Status and Management of Lagarosiphan major in Lough Corrib 2007 (Caffrey and Acevedo), detailed the distribution of Lagarosiphon in Lough Corrib and revealed that the invasive species was well established and spreading at an exponential rate in the upper and middle lake.

While it is not the statutory responsibility of IFI to manage aquatic invasive species, it was clear that without immediate action on the rapidly expanding Lagarosiphon infestation of Lough Corrib it is probable that large tracts of the lake would have been lost to recreational users and an ecological disaster would have occurred with serious biological and economic consequences. A perfect example of this was in Rinnaroon bay, one of the first areas of the lake where the weed was discovered. The bay was completely taken over by a dense forest of the weed. Intensive cutting and the laying of jute matting, has restored the bay to prime habitat for salmonoid stocks and for recreational use. The basis for undertaking the weed control was that IFI was the agency with statutory remit for the development of angling and without control of the invasive water weed the primary wild brown trout feed and angling grounds would be lost. In addition, the weed was shading out the key Charaphyte beds which Lough Corrib is designated for and which form the feeding grounds of the trout.

Through IFI's Life+ Project CAISIE (Control of aquatic invasive species and restoration of natural communities in Ireland) which ran from January 2009 to January 2013, over 90% of the original 92 hectares infestation of curly-leaved waterweed was treated. Interventions managed to bring the weed coverage down to 'manageable levels' - below 10 ha – and prevented its spread to the large lower section of the lake. Subsequent treatments of previously treated areas have also been necessary as the weed has the ability to re-establish after a period of

time. The IFI Weed programme has continued annually and also an IFI research programme, Lagarosiphon Research Lough Corrib (LARC), was established which ran from 2018 to 2020. The LARC programme's main aim was to review recent international developments in invasive aquatic plant species control; develop and trial new approaches to improve surveying and monitoring; establish the current distribution and extent of colonisation of Lagarosiphon major in the lake and to determine the influence of habitat and environmental factors on the establishment and persistence capacity of the invasive plant in the lake. Please see Appendix 5 for details of the funding for the Lagarosiphon Weed contract.

IFI	€ 908,792
DECC	€1,100,000 (2018,2019, 2020, 2021)
Others	
Galway Co Co	€40,000 pa
OPW	€40,000 pa
Heritage Council	€15,000 (2011)
CAISIE	€20,000 (pa 2011, 2012)
Galway City Council	€20,000 (2011)
NPWS	€90,000 (50k 2013 and 40k 2016)
Lough Corrib Navigation	€7,500 (2013)
Costs	
IFI Staff/jute/other	€ 1,357,321
Contractor/s	€1,717,910

Appendix 5 - Details of the fun	ding for the Lagarosip	thon Weed contract
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Deployment of the RIB fleet. Within the same correspondence to the Minister, a further assertion was raised regarding the deployment of IFI's RIB fleet, at night. "13 high powered boats were purchased at the cost of €3.5 million and yet there are only three personnel which are qualified to man them at night. So they sit in sheds and basically do not go out." The IFI Response to the Minister was: 12 (7.5m) Delta seagoing Rigid Inflatable Boats (RIBs) were purchased between 2018 and 2019 by IFI. These new vessels replaced an aging fleet that was in existence. IFI patrol the coastline during the spring to autumn months with these vessels. In the main, these vessels are used to protect Atlantic salmon, sea trout and bluefin tuna. Over the last 5 years a total of 1200 illegal nets have been seized totalling 62,000 metres in length in the marine areas where IFI patrol.

IFI has currently 54 fully qualified coxswains to operate these vessels. Each fishery district under the supervision of the respective RBD Director sets out the number and location of such sea patrols depending on resources. On average each fishery district undertakes 20 sea patrols per year, in 2021, 232 sea patrols were undertaken by IFI using these vessels, an average of over 19 patrols for each boat. <u>Senior Counsel Review of IFI Board.</u> Post year end, the Minister for the Environment, Climate and Communications, Earnon Ryan TD, under section 18(3) of the Inland Fisheries Act 2010 appointed Conleth Bradley Senior Counsel to undertake a review of the operations of the Board of IFI. The reasons for the review were in relation to the following;

- 1) An alleged unauthorised confidential disclosure
- 2) Collective responsibility The Board decision making processes
- Internal and external communications How correspondence for the Board is processed.
- 4) Relationship between the Board and the Executive.

The full report can be found here or at the website https://www.gov.ie/en/publication/cfbecindependent-review-of-the-board-of-inland-fisheries-ireland/

The recommendations were welcomed by the Board and Executive of IFI.

<u>Change of base of the CEO</u>. The decision was based on the fact that the CEO was spending more time in Galway than Dublin and the distance from Ballyshannon to Galway (183km) is slightly less than Dublin to Galway (211km); also with the prevailing changes in remote working it made sense both economic and a carbon footprint point of view to change the CEO's base to the closest IFI base (which is Ballyshannon). This was agreed by the Head of HR and the Chairman in November 2021. The changes brought about by remote working during COVID 19 has meant that traditional concepts such as the CEO being based at the headquarters are no longer as relevant as heretofore.

<u>Vehicle Fleet</u>- type of vehicles and numbers used. Arising during the audit of IFI was a question over the number of vehicles compared to the numbers of staff, especially field staff, the ratio seemed high. An internal review has already been undertaken in this area by the newly appointed Fleet Manager. With COVID distance arrangements and protocols a number of vehicles were kept on fleet to reduce the hire costs and keep the exceptional requirement imposed by COVID restrictions to a minimum. As COVID restrictions eased significantly especially in 2022, 22 of these vehicles were disposed of following the procurement process to secure the services of an auction specialist. In addition the Fleet Manager has undertaken reviews of use of vehicles and during his review 6 Electric Vehicles have been identified as not obtaining maximal savings in their current use and a process is in train to transfer these whereby their use will be optimized, reducing costs and carbon footprint. Fleet is the biggest expenditure item after salaries and wages by IFI and is due for Internal Audit in Q1 of 2023, the findings of which will be shared with the Comptroller and Auditor General's Office.

<u>Staff numbers- Sanction of 312 but use of agency staff (based on 14 agency staff in 2021)</u> <u>brings IFI over sanction by 8.</u> The majority of the 14 agency staff are carrying out normal day to day operationally required posts (for example, the administration support staff in HR, Communications and Logistics are all agency staff yet these are posts that are critical to the day to day running of these Departments); the priority for head-counted posts are assigned to operational departments on the basis that we do not have enough ''boots on the ground'' in the majority of regions to carry out critical operations (IFI's headcount was reduced by over 200 posts in the moratorium years and they have never been replaced)

There are only 2 head-counted posts in IFI's ICT Department (1 x Admin Grade 3 and 1 x AP), the rest of the team members are made up of agency staffing; this is solely to do with the salary market rates for these types of specialist IT posts – the current IFI salary scales do not offer the rates of pay necessary to attract the specialist IT skillsets we require (particularly given the fact that we are required to start new entrants to the public sector on point 1 of the pay scale)

A workforce plan drawn up in conjunction with Mazars was sent into the Department in July of 2022 to address the inadequacies of a 312 ECF up to the year 2025. These inadequacies take account of the additional administration burden placed on IFI from EU legislation not only in relation to fish but the aquatic habitat. IFI is awaiting a response to this submission.

Protection Crews Not Discharging their duties. In the Ballyshannon Protection Team – The Head of Operations and the HR Team have put in place an active management support plan (consisting of regular meetings, active management of protection plans, individualized employee performance improvement plans etc) with a focus in particular the number of nightime and early morning patrols in the Ballyshannon Fishery District. Dedicated HR Business Partner support is available to manage employee relations issues that have arisen as a result of the intensive managed approach taken by local management on the operational issues.

A national agreement with SIPTU has been implemented which requires all managers nationwide to complete a weekly work planner (this planner sets out the weekly work plan in alignment with the annual operations plan for the region); these planners are saved each week up to SharePoint so that both the Regional RBD Director and Head of Operations can access the planners at any time to ascertain what operational activities an individual team has planned.

Also, a national agreement with SIPTU has been reached to digitize their weekly diary sheets (this document records the operational activities performed by the field officer); this document is also central to gathering the data necessary to deliver operational metrics for the DECC service level agreement.

Staff Member using personal vehicle when IFI vehicle is available to attend meetings. This matter was addressed with the staff member. The staff member will use an IFI vehicle going forward and be in full compliance with the travel and subsistence circulars.

An Garda Siochána investigation. In July 2022 and again in late September 2022 following an in internal review, the CEO reported a matter of potential fraud to An Garda Síochána. This investigation is ongoing. Depending on the findings of the investigation, internal controls will be evaluated as required.

On Behalf of IFI

Seamus Neely

Tom Barry

9th Monch 2023 Date 9.3.2023.

STATEMENT OF INCOME AND EXPENDITURE AND RETAINED REVENUE RESERVES FOR THE 12 MONTHS TO 31 DECEMBER 2021

Income State and EU Funding		Notes	202 €	ε	. E	2020 €
Oireachtas Grants		2	24,381,407		30,249,446	
Less Single Pension Scheme co Net deferred funding for		14a 14c	(226,154) 3,285,199	27,440,452	(174,864) 3,224,306	33,296,888
Other Income	Department of Social Protection Other	3		4.280,154		9,678 3,559,303 36,867,86 9
Expenditure						
Administration		4		5,546,632		6,254,441
Operations		5		31,209,643 36,756,275		27,638,001 33,892,442
Surplus / (Deficit) for the Y	ear before Appropriations			(5.035.669)		2,975,427
Transfer from / (to) Capitz Surplus / (Deficit) for the Y		12	1	(77,959) (5,113,628)		407,057 3,382,484
Balance Brought Forward	at 01 January			10,785,920		7,403,436
Balance Carried Forward a	at 31 December			5,672,292		10,785,920

The Statement of Cash Flows and notes 1 to 19 form part of these financial statements.

9.3.2023 Date Contractionly Tom Barry

STATEMENT OF COMPREHENSIVE INCOME FOR THE 12 MONTHS TO 31 DECEMBER 2021

	2021 €	€ 2020
Surplus / (Deficit) for the Year after Appropriations	(5,113,628)	3,382,484
Experience gains on retirement benefit obligations Change in assumptions underlying the present value of retirement benefit	1,501,000	(245,000)
obligations	(828,000)	(14,350,000)
Total actuarial gain/(loss) in the year 14b	673,000	(14,595,000)
Adjustment to deferred retirement benefits funding	(673,000)	14,595,000
Other Comprehensive Income for the year	(5,113,628)	3,382,484

The Statement of Cash Flows and notes 1 to 19 form part of these financial statements.

Seamus Neely Date Qtz Manch 2023 Date Date

Tom Barry

STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2021

	Notes	2021	2020
Fixed Assets		€€	€
Property, plant and equipment	9	21,387,214	21,309,255
Current Assets			
Inventory	16	1 (72 70	
Cash and cash equivalents	10	1,672,759	1,910,351
Receivables	10	9,811,807	15,494,512
	10	1,309,465	820,637
		12,794,031	18,225,500
Current liabilities (amounts falling due within one year)			
Payables		7,121,740	7 /20 /20
		7,121,740	7,439,580
		7,121,740	7,439,580
NET CURRENT ASSETS/(LIABILITIES)		5,672,291	10,785,920
TOTAL ASSETS LESS CURRENT LIABILITIES BEFORE PE	NSIONS	27,059,506	32,095,175
Deferred retirement benefit funding asset			
Retirement benefit obligations	I4c	158,591,180	155,978,981
Heat effect obligations	í 4b	(158,591,180)	(155,978,981)
TOTAL ASSETS LESS CURRENT LIABILITIES		-	-
CORRENT LIABILITIES		27,059,506	32,095,175
NET ASSETS/(LIABILITIES)			
()		27,059,506	32,095,175
Reserves			
Capital account	12	21 207 214	
Surplus on Income and Expenditure and retained Revenue Reserves	12	21,387,214	21,309,255
the second se		5,672,292	10,785,920
		27,039,506	32,095,175

The Statement of Cash Flows and notes 1 to 19 form part of these financial statements.

Seamus Neely

18-Tom Barry

997 March 2023 Date 9.2.2025 Date

STATEMENT OF CASHFLOWS FOR THE 12 MONTHS TO 31 DECEMBER 2021

Net Cash Flows from Operating Activities

	2021	2020
	€	e
Excess of Expenditure over Income	(5,035,669)	2,975,427
Depreciation and Impairment of Fixed Assets	2,060,909	1,829,906
(Increase)/Decrease in Receivables	(488,829)	133,313
Increase/(Decrease) in Payables	(317,841)	(1,360,857)
(Profit) / Loss on sale of fixed assets	149	(166,996)
Net interest	28,882	22,879
(Increase)/Decrease in Inventory	237,592	(1,565,498)
Net Cash Inflow/(Outflow) from Operating Activities	(3,514,807)	1,868,174
Cash Flows from Investing Activities		
Payments to acquire Property, Plant & Equipment	(2,143,189)	(1.428.047)
Proceeds from the disposals of Property Plant & Equipment	4,173	172,194
Net Cash Inflow/(Outflow) from Investing Activities	(2,139,016)	(1,255,853)
Cash Flows from Financing Activities		
Net interest	(28,882)	(22.879)
Net Cash Inflow/(Outflow) from Financing Activities	(28,882)	(22,879)
Net Increase / (Decrease) in cash and cash equivalents	(5,682,705)	589,442

Reconciliation of net Cash Inflow/(Outflow) to movement in net funds

	2021	2020
	€	€
Increase / (Decrease) in cash	(5,682,705)	589,442
Cash and cash equivalents at the beginning of the year	15,494,512	14.905,070
Cash and cash equivalents at the end of the year	9,811,807	15,494,512

The Statement of Cash Flows and notes 1 to 19 form part of these financial statements.

Seamus Neely

9th March 2023 Date 9.5.2023 Date

For the year ended 31 December 2021

I. Accounting Policies

The basis of accounting and significant accounting policies adopted by Inland Fisheries Ireland are set out below. They have all been applied consistently throughout the year and for the preceding year.

a) General Information

Inland Fisheries Ireland was set up under the Fisheries Act 2010 with a head office at 3044 Lake Drive, Citywest Business Campus, Dublin 24, D24 Y265.

Inland Fisheries Ireland primary objectives are to protect, manage and conserve Ireland's inland fisheries resource.

Inland Fisheries Ireland is a Public Benefit Entity (PBE).

b) Statement of Compliance

The financial statements of Inland Fisheries Ireland for the year ended 31 December 2021 have been prepared in compliance with the applicable legislation, and with FRS 102 The Financial Reporting Standard applicable in the UK and the Republic of Ireland issued by the Financial Reporting Council in the UK.

c) Basis of Preparation

The financial statements have been prepared under the historical cost convention, except for certain assets and liabilities that are measured at fair values as explained in the accounting policies below. The financial statements are in the form approved by the Minister for the Environment, Climate and Communications with the concurrence of the Minister for Public Expenditure and Reform under the Inland Fisheries Act 2010. The following accounting policies have been applied consistently in dealing with items which are considered material in relation to Inland Fisheries Ireland's financial statements.

d) Revenue

Oireachtas Grants

Income from Oireachtas Grants is accounted for on a cash receipts basis. Income from the Department of Rural and Community Development under its Rural Recreation scheme is accounted for on an accruals basis.

Income from the Department of the Environment, Climate and Communications in respect of National Strategy for Angling Development (NSAD) and the Eel Fisherperson Support Scheme are accounted for on an accruals basis.

All other income received is accounted for on an accruals basis.

For the year ended 31 December 2021

1. Accounting Policies continued

d) Revenue (Continued) Refunds of grants paid

Grants paid become refundable in certain circumstances, such as liquidation/dissolution of the recipient company, or if the conditions of the grant are not met. Grant refunds are recognised when it is probable that the money will be received by Inland Fisheries Ireland and the amount can be estimated reliably; therefore they are accounted for on an accruals basis.

Interest income

Interest income is recognised on an accruals basis using the effective interest rate method.

Other Revenue

Other revenue is recognised on an accruals basis except for Conservation fund, fines & forfeitures, sale of publications and Freedom of Information request fees which are reported on a cash received basis.

e) Capital Account

The Capital Account represents the unamortised amount of income used to purchase fixed assets.

f) Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation, adjusted for any provision for impairment. Depreciation is provided on all property, plant and equipment, other than freehold land and artwork, at rates estimated to write off the cost less the estimated residual value of each asset on a straight line basis over their estimated useful lives, as follows:

(i)	Buildings and Hatcheries	2%
(ii)	Motor Vehicles	20%
(iii)	Field Equipment	25%
(iv)	Laboratory Equipment	331⁄5%
(v)	Boats	10%
(vi)	Trailers	10%
(vii)	Engines	20%
(viii)	Furniture and Office Equipment	20%
(ix)	Computers	331⁄3%

Residual value represents the estimated amount which would currently be obtained from disposal of an asset, after deducting estimated costs of disposal, if the asset were already of an age and in the condition expected at the end of its useful life.

If there is objective evidence of impairment of the value of an asset, an impairment loss is recognised in the Statement of Income and Expenditure and Retained Revenue Reserves in the year.

For the year ended 31 December 2021

I. Accounting Policies continued

g) Inventory

Inventory consists of goods for resale, and is recognised in the financial statements at the lower of Cost and Net Realisable Value (NRV). Cost is calculated on a first-in-first-out (FIFO) basis and includes all purchase costs. NRV is the selling price (actual or estimated) less all necessary completion costs. Stock in the fish farm is calculated with an assumed mortality rate of 60%.

h) Receivables

Receivables are recognised at fair value, less a provision for doubtful debts. The provision for doubtful debts is a specific provision, and is established when there is objective evidence that Inland Fisheries Ireland will not be able to collect all amounts owed to it. All movements in the provision for doubtful debts are recognised in the Statement of Income and Expenditure and Retained Revenue Reserves.

i) Operating Leases

Rental expenditure under operating leases is recognised in the Statement of Income and Expenditure and Retained Revenue Reserves over the life of the lease. Expenditure is recognised on a straight-line basis over the lease period, except where there are rental increases linked to the expected rate of inflation, in which case these increases are recognised when incurred. Any lease incentives received are recognised over the life of the lease.

j) Employee Benefits

Short-term Benefits

Short term benefits such as holiday pay are recognised as an expense in the year, and benefits that are accrued at year-end are included in the Payables figure in the Statement of Financial Position.

Inland Fisheries Ireland previously established its own defined benefit pension scheme, funded annually on a pay-as-you-go basis from monies provided by the Department of Environment, Climate and Communications and from contributions deducted from staff members' salaries which are retained. Inland Fisheries Ireland also operates the Single Public Services Pension Scheme ("Single Scheme"), which is a defined benefit scheme for pensionable public servants appointed on or after 1 January 2013. Single Scheme members' contributions are paid over to the Department of Public Expenditure and Reform (DPER).

For the year ended 31 December 2021

I. Accounting Policies continued

j) Employee Benefits continued

Pension costs reflect pension benefits earned by employees, and are shown net of staff pension contributions. An amount corresponding to the pension charge is recognised as income to the extent that it is recoverable, and offset by grants received in the year to discharge pension payments.

Actuarial gains or losses arising on scheme liabilities are reflected in the Statement of Comprehensive Income, and a corresponding adjustment is recognised in the amount recoverable from the Department of Environment, Climate and Communications.

The financial statements reflect, at fair value, the assets and liabilities arising from Inland Fisheries Ireland's pension obligations and any related funding, and recognises the costs of providing pension benefits in the accounting periods in which they are earned by employees. Retirement benefit scheme liabilities are measured on an actuarial basis using the projected unit credit method.

k) Critical Accounting Judgements and Estimates

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the amounts reported for assets and liabilities as at the balance sheet date and the amounts reported for revenues and expenses during the year. However, the nature of estimation means that actual outcomes could differ from those estimates. The following judgements have had the most significant effect on amounts recognised in the financial statements.

Impairment of Property, Plant and Equipment

Assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less cost to sell and value in use. For the purpose of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash generating units). Non-financial assets that suffered impairment are reviewed for possible reversal of the impairment at each reporting date.

Depreciation and Residual Values

The Directors have reviewed the asset lives and associated residual values of all fixed asset classes, and in particular, the useful economic life and residual values of fixtures and fittings, and have concluded that asset lives and residual values are appropriate.

For the year ended 31 December 2021

I. Accounting Policies continued

k) Critical Accounting Judgements and Estimates continued

Provisions

Inland Fisheries Ireland makes provisions for legal and constructive obligations, which it knows to be outstanding at the period end date. These provisions are generally made based on historical or other pertinent information, adjusted for recent trends where relevant. However, they are estimates of the financial costs of events that may not occur for some years. As a result of this and the level of uncertainty attaching to the final outcomes, the actual out-turn may differ significantly from that estimated.

Retirement Benefit Obligation

The assumptions underlying the actuarial valuations for which the amounts recognised in the financial statements are determined (including discount rates, rates of increase in future compensation levels, mortality rates and healthcare cost trend rates) are updated annually based on current economic conditions, and for any relevant changes to the terms and conditions of the pension and post-retirement plans.

The assumptions can be affected by:

- (i) the discount rate, changes in the rate of return on high-quality corporate bonds
- (ii) future compensation levels, future labour market conditions

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

2 Oireachtas Grants

The Oireachtas Grants voted to IFI from Vote 29 Environment, Climate and Communicatons, Sub Head D3 Inland Fisheries as shown in the financial statements consist of:

Inland Fisheries Ireland		2021 €	2020 €
Current Expenditure Grant		24,120,619	27,497,441
Current Expenditure Grant - National Strategy for A	ngling Development	190,278	226,916
Current Expenditure Grant - Scientific Eels		70,510	-
Capital Expenditure Grant		-	2,525,089
		24,381,407	30,249,446
3 Other Income		2021	2020
		€	€
Contract work		2,105,550	1,644,589
Fish Farm income		265,669	233,472
Permit Income		564,637	366,119
Licence Income			
Rod	454,568		
Commercial Fishing	26,790		
Part X Dealers	33,350		
State Fisheries	67,120	581,828	550,486
Salmon Conservation Funding		407,729	260,691
Fines & Forfeitures (a)		109,110	85,036
Fishery Rates		226,715	234,124
Department of Social Protection - Community Employment			9,678
Profit (Loss) on Sale of Fixed Assets		(149)	166,996
Miscellaneous		19,065	17,790
		4,280,154	3,568,981

(a) During 2021 amounts, totalling €22,130 were paid from the Environment, Climate and Communications Vote under Section 315(3) of the Fisheries (Consolidation) Act 1959. These are included in Fines and Forfeitures (2020: € 20,053).

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

		Notes	2021	2020
4	Administration		€	€
	Staff costs and Board Members' fees	6	3,898,837	4,696,872
	Office expenses	8e	265,067	303,868
	Bank interest		28,880	22,876
	Advertising & public information		36,011	44,947
	Publicity & promotion		56,039	129,766
	Professional fees		179,019	163,013
	Audit fee		39,918	36,300
	Board expenses		14,814	5,605
	Legal Fees		52,391	20,525
	Insurance		47,187	56,145
	Depreciation	9	460,437	456,359
	Computer Expenditure	8d	242,734	132,387
	Miscellaneous	8b	151,924	79,382
	Bad debt provision	8b	73,374	106,396
			5,546,632	6,254,441

			2021	2020
5	Operations		¢	€
	Staff costs	6	22,666,769	20,582,313
	Office expenses	8e	747,273	709,792
	Safety (a)		581,185	(145,554)
	Training		420,920	322,170
	Legal Fees		337,813	158,203
	Professional fees		561,414	1,289,647
	Repairs & maintenance	8e	151,309	127,973
	Field supplies		307,027	324,285
	Development Works	8c	409,382	270,678
	Development Supplies	8c	717,519	500,248
	Running & upkeep of vehicles & boats (b)	8a	1,598,734	1,132,006
	Laboratory expenses		44,364	41,098
	Purchase of fish & fish food		205,026	161,307
	Insurance		306,154	272,403
	Depreciation	9	1,600,717	1,373,547
	Miscellaneous	8b	272,582	331,692
	Computer Expenditure	8d	238,605	149,615
	Licence and permit commission		42,850	36,578
			31,209,643	27,638,001
	Total expenditure		36,756,275	33,892,442

(a) Safety expenditure for 2019 incorrectly included € 477,730 for workwear. This was part of a multi-annual order and was corrected in the 2020 figure (see note 16).

5a

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

	2021	2020
Consultancy Costs - Detail		e
Business Improvement	128,078	76,834
Financial	50,943	48,088
HR/Pension	74,277	82,467
Legal Fees	390,204	178,729
Consultant Engineers	41,789	22,290
Eel Survey	16,800	22,400
Eel Support Grant Scheme payments *	7,000	689,160
Environmental Consultancy	178,015	196,786
Medical Services	31,471	54,079
Veterinary Services	16,971	19,628
Other	7,631	33,126
Other Capital	18,081	52,795
PR / Marketing	89,593	148,886
Property/Planning	52,032	20,088
Total	1,102,885	1,645,356

* The Department of the Environment, Climate and Communications offers a restitution payment via the Eel Fisherpersons Support Scheme to former eel fisherpersons who were licenced/permitted to engage with the commercial eel fishery in 2007. Funding is now fully dispersed.

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

6	Remuneration and Other I	Pay Costs	2021	2020
				€
6a	Salaries & wages *		19,818,010	19,008,556
	Board Members fees	7	57,427	65,238
	Travel & subsistence - National	1	715,320	641,661
	Travel & subsistence - Internat	ional	8,628	9,256
	Pension costs	14a	5,966,220	5,554,474
			26,565,605	25,279,185
				the second se

Included in salaries and wages are:

- amounts totalling €1.417m paid to 271 staff (2020: €1.309m paid to 246 staff) in relation to unsocial hours payments
- There were 5 Redundancies € 21,629, 1 ex-gratia payment € 3,603 and 5 settlements € 40,000 totalling € 65,232

	2021	2020
Number of employees	Number	Number
Managerial & clerical	66	68
Research / technical	259	270
Other	I	1
Total Staff	326	339

Number of Employees

6b Range of salary short term employee benefits

From		То	2021	2020	
€ 60,000	-	€ 69,999	43	43	
€ 70,000	-	€ 79,999	10	17	
€ 80,000	-	€ 89,999	4	4	
€ 90,000	-	€ 99,999	6	6	
€ 100,000	-	€ 109,999	3	2	
€ 110,000	-	€ 119,999	2	3	
€ 120,000	-	€ 129,999		-	
€ 130,000	-	€ 139,999	-	-	
€ 140,000	-	€ 149,999	1	1	
€ 150,000	-	€ 159,999		-	
€ 160,000	-	€ 169,999		-	
€ 170,000	-	€ 179,999		-	

Note: for the purposes of this disclosure, short term employee benefits in relation to services rendered during the reporting period include salary, overtime, allowances and other payments made on behalf of the employee, but exclude employer's prsi

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

бc	Aggregate Employee Benefits	2021	2020
		e	€
	Staff salary and short-term benefits Permanent Staff	17,293,455	16,288,236
	Staff salary and short-term benefits Contract Staff	742,974	954,150
	Retirement benefit costs	5,966,220	5,554,474
	Employer contribution to social welfare	1,839,386	1,807,369
		25,842,035	24,604,229
6d	Staff Short-Term Benefits	2021	2020
		€	€
	Basic Pay	15,946,762	15,663,684
	Overtime	15,241	12,850
	Allowances	1,427,251	1,320,421

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

6e Key Management Personnel

Key management personnel in Inland Fisheries Ireland consists of the members of the Board, the Chief Executive Officer, Head of Finance & Energy Performance Officer, Head of Operations, Head of Business Development, Head of Research & ICT, Head of Human Resources and Board Member Stipend (Details Note 7). The total value of employee benefits for key management personnel is set out below:

	2021	2020
	¢	€
Salary	829,434	785,533
Allowances	-	
Termination Benefits		-
Health Insurance		
	829,434	785,533

This does not include the value of retirement benefits earned in the period. The key management personnel with the exception of the Board Members are members of Inland Fisheries Ireland pension scheme and their entitlements in that regard do not extend beyond the terms of the model public service pension scheme.

6f Chief Executive Officer's Remuneration

The Chief Executive's remuneration comprised of:

	2021 €	2020 €
Previous CEO 01/01/2020 - 30/06/2020		
Basic Annual Salary		83,872
Arrears		3,425
Total		87,297
Interim CEO 01/07/2020 - 30/11/2020		53,007
Current CEO 02/11/2020 - 31/12/2021	144,947	24,211
Total	144,947	164,515

The CEO is a member of Inland Fisheries Ireland pension scheme and his entitlements do not extend beyond the standard entitlement in the model public sector defined benefit superannuation scheme. The value of retirement benefits earned in the period is not included here.

Remuneration shown above reflects salary for CEO position only. In 2020 all 3 employees were in the employment of IFI in different roles prior and post CEO position.

The CEO received recoupment of travel and subsistence of €7,628 in 2021 (2020: €5,800).

There were no payments made to any of the CEO position holders under performance related pay schemes in the period. Annual Salary for the Chief Executive Officer @ 31st December 2021 was point 2 of the CEO scale being €150,381. He also had use of an IFI Vehicle.

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

7 The following amounts were paid to Board members for the 12 months ended 31 December 2021

Board	Board 2021	Audit & Risk Committee 2021	Strategic HR Sub- committee 2021	Property Sub- committee 2021	Farm Working Group 2021	Mileage & Subsistence 2021	Fees & Remuneration 2021
Number of Meetings							
Fintan Gorman (Chairperson)	13	5	3	5	1	11,999	11,970
Prof Frances Lucy A 8	12	5			1	443	
Sean Coady ^{D. E}	13			5		1,824	
Patrick Gibbons A.B.D	11	6		2			6,982
Bernadette Orbinski Burke A	13					50	7,695
Seamus Boland ^c	10	1	3				7,695
Michael McGreal .C. D	13			5		1,725	7,695
Marie Louise Heffernan A	12	7	2	2		1,298	7,695
Fiona Walsh ^A	7	5				-	7,695
						17,339	57,427

Joint Fish

The following amounts were paid to Board members for the 12 months ended 31 December 2020

Board	Mileage & Subsistence	Fees & Remuneration	Meetings Attended	
	2020	2020	2020	
Fintan Gorman (Chairperson)	2,244	11,970	20	
Prof Frances Lucy AB	435	-	6	
Sean Coady ^D	699	7,098	16	
Patrick Gibbons AB	38	7,695	23	
Bernadette Orbinski Burke ^A	-	7,695	20	
Seamus Boland ^C	1,104	7,695	18	
Michael McGreal C.D		7,695	21	
Marie Louise Heffernan ^A	900	7,695	16	
Fiona Walsh ^A		7,695	17	
	5,420	65,238		

A new Board Committee was set up in 2021 - Joint Fish Farm Working Group. The total number of meetings held in 2021 was 30 (2020: 27 meetings)

Prof Frances Lucy and Sean Coady did not receive a Board fee under the One Person One Salary principle (OPOS)

Some members also serve on Board Subcommittees:

A denotes ARC membership

8 Re-appointed to Board 2021

^C denotes Strategic HR Sub Committee

D denotes Property Sub Committee

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

		Notes	2021	2020
			€	€
8a	Running & upkeep of vehicles & boa	ts		
	Vehicle Insurance		177,014	89,539
	Vehicle repairs & maintenance		273,650	235,629
	Vehicle fuel		466,303	348,973
	Boat Insurance		53,496	55,154
	Boat repairs & maintenance		88,056	86,608
	Boat fuel		43,206	23,227
	Covert Car Hire		12	1,604
	Storage of Boats & Vehicles		4,476	6,098
	General Car hire		351,651	268,804
	Other running costs		140,870	16,370
			1,598,734	1,132,006
8b	Miscellaneous			
	Magazines / periodicals		1,216	1,116
	Meeting Expenses		7,210	13,507
	Courier		11,309	12,274
	Facilities Expenditure		78,602	76,555
	Fish Vaccines		8,784	744
	Hatchery Costs		30,549	30,103
	Domestic supplies		7,896	10,327
	Cleaning		75,735	86,817
	Security		70,895	58,358
	Equipment repairs & maintenance		95,415	92,028
	Bad Debts Provision		73,374	105,679
	Bad Debts Write Off			717
	Equipment under €500		30,483	22,798
	Sundry		6,412	6,447
			497,880	517,470

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

	Notes	2021	2020
		€	€
8c	Development Expenditure		
	Sub-contract / plant hire	398,669	265,103
	Development supplies	717,519	500,248
	Rehabilitation Works	10,713	5,575
		1,126,901	770,926
8d	Computer Expenditure		
	Computer consumables	21,271	30,508
	Computer software	85,343	79,410
	Computer Maintenance & Licencing	374,725	172,084
		481,339	282,002
8e	Office expenses		
	Printing & stationery	66.854	65,493
	Postage & telephone	96.058	88.855
	Mobile phones & Broadband & Antennae Masts & Off-Site		00,000
	Communication	410,021	426,051
	Rent & rates	112,594	102,381
	Heat & light	255,138	250,044
	Repairs & maintenance	222,985	208,809
		1,163,650	1,141,633

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

9 Property, Plant & Equipment

	Land, buildings, fisheries & hatcheries €	Motor vehicles €	Boats & engines €	Field & lab equip. incl Trailers €	Furniture, office equip. & computers €	Total €
Cost or valuation						
At I Jan 2021	22,089,861	5,374,918	6,417,937	6,238,159	3,029,010	43,149,885
Reclass I Jan 2021	(3,831)		(2,221)	2,221	3,831	0
Additions for year	465,222	737,674	53,558	592,153	294,582	2,143,189
Disposals for year Reclass		(46,042)	(8,296)	(14,909)	(5,179)	(74,426)
At 31 December 2021	22,551,252	6,066,550	6,460,978	6,817,624	3,322,244	45,218,648
Depreciation						
At I Jan 2021	5,542,119	4,078,566	3,689,500	5,720,279	2,810,166	21,840,630
Adj to FMIS relates 2020 RIBS washed out in						
2022			(245)			(245)
Reclass I Jan 2021	(6)	-	(56)	56	6	0
Charge for year	453,936	566,859	491,721	369,844	178,794	2,061,154
Disposals for year		(46,042)	(6,946)	(12,064)	(5,053)	(70,105)
Re-Classification						0
At 31 December 2021	5,996,049	4,599,383	4,173,974	6,078,115	2,983,913	23,831,434
Net Book Value						
At I January 2021	16,547,742	1,296,352	2,728,437	517,880	218,844	21,309,255
Net Movement for the year	7,461	170,815	(441,433)	221,629	119,487	77,959
At 31 December 2021	16,555,203	1,467,167	2,287,004	739,509	338,331	21,387,214

	fisheries &	Motor	Boats &	equip. incl	office equip.	
	hatcheries	vehicles	engines	Trailers	& computers	Total
	€	€	€	€	e	€
Cost or valuation						
At I Jan 2020	21,355,750	5,553,562	6,554,964	6,029,017	2,852,470	42,345,763
Reclass I Jan 2020	(12,193)	-	0	1,451	10,742	
Additions for year	746,304	191,867	69,501	246,832	173,543	1,428,047
Disposals for year		(370,511)	(206,528)	(39,141)	(7,745)	(623,925)
At 31 December 2020	22,089,861	5,374,918	6,417,937	6,238,159	3,029,010	43,149,885
Depreciation						
At I Jan 2020	5,093,307	4,002,481	3,415,698	5,448,210	2,669,755	20,629,451
Reclass I Jan 2020	(203)	-	0	282	(79)	0
Charge for year	449,015	446,596	480,330	305,730		1,829,906
Disposals for year	0	(370,511)	(206,528)	(33,943)	(7,745)	(618,727)
At 31 December 2020	5,542,119	4,078,566	3,689,500	5,720,279	2,810,166	21,840,630
Net Book Value						
31 December 2019	16,262,443	1,551,081	3,139,266	580,807	182,715	21,716,312
Net Book Value						
31 December 2020	16,547,742	1,296,353	2,728,437	517,880	218,844	21,309,255
						the second se

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

10 Analysis of receivables	2021	2020
	e	€
Trade debtors etc.	1,067,143	1,012,532
Accrued Income	887,979	300,071
Bad debt provision	(674,032)	(600,658)
Other prepayments	28,375	108,692
	1,309,465	820,637

ш	Analysis of payables	2021	2020
		€	€
lla	Deferred Income		
	Deferred Contract income	97,604	91,292
	Department of Rural and Community Development - Rural Recreation Fund	171,885	171,885
	National Strategy for Angling Development	527,748	718,026
	Scientific Eels	180,490	251,000
	Angling for All		10,466
	Total Deferred Income	977,727	1,242,669
	Funds held in trust		
	Salmon Conservation Fund	3,540,843	3,509,806
	Trade creditors and accruals	2,603,170	2,687,105
		7,121,740	7,439,580

Salmon Conservation Funds are generated from the sale of salmon angling and commercial fishing licences. The revenue generated from the Salmon Conservation Fund is reinvested to promote the recovery of our salmon stocks and habitats taking into account project feasibility, funding availability and value for money considerations.

The Fund is being managed by Inland Fisheries Ireland and is accounted for as a Creditor on the statement of financial position. Where Inland Fisheries Ireland incurs direct expenditure on projects related to Fund activities it is reimbursed from the Fund. IFI's direct expenditure is charged to the Income and Expenditure and retained revenue reserves. Reimbursement from the Fund is accounted for by Inland Fisheries Ireland as Other Income (Note 3) on a cash receipts basis. All other transactions in relation to the Fund, including payments to third parties, are accounted for as movements in the Creditors figure.

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

II Analysis of payables

IIЬ

Transactions in relation to the Salmon Conservation Fund in 2021 are disclosed below.				
	2021	2020		
	e	¢		
Opening Balance	3,509,806	3,412,230		
Receipts	465,704	418,811		
Interest earned	(17,677)	19		
Expenditure				
Insurance SCF Employer and				
Public Liability	(5,389)	(7,086)		
To third parties	(3,872)	(53,477)		
To IFI*	(407,729)	(260,691)		
Closing Balance	3,540,843	3,509,806		

*Accounted for by IFI as Other Income.

	Deferred Contract Income	Rural Recreation Fund	NSAD	Angling for All	Scientific Eels	Total
	A	B	с	D	E	
Opening Balance	91,292	171,885	718,026	10,466	251,000	1,242,669
Receipts in year	16,869					16,869
Released to Income and						
Expenditure	(10,557)		(190,278)	(10,466)	(70,510)	(281,811)
Closing Balance	97,604	171,885	527,748	-	180,490	977,727

A Licence Income, Genetic Trout Study in the case of contract income

B The Department of Rural and Community Development provides funding from the Rural Recreation Fund to develop key angling projects in rural areas

C The Department of the Environment, Climate and Communications provides funding for any individual, angling club etc. with an interest in the development and improvement in Irish angling and/or fisheries under the National Strategy for Angling Development (NSAD).

D Inland Fisheries Ireland has granted funding supported by the Dormant Account Fund which will benefit initiatives from groups in Ireland that are engaged in novice angling.

E Scientific Eels is a collaborative research initiative involving IFI scientists and a number of former eel fishermen to further develop national knowledge of the species and its medium to longer term potential for recovery

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

12	Capital account	2021 €	2020 €
	Balance at I Jan	21,309,255	21,716,312
	Transfer (to) / from Income and Expenditure and retained reve	nue reserves	
	To fund fixed asset purchases Amount Released on Disposal of Fixed Assets	2,143,189 (4,076)	1,428,047 (5,198)
	Amortisation in line with asset depreciation	(2,061,154) 77,959	(1,829,906) (407,057)
	Balance	21,387,214	21,309,255

13 Related Party Disclosures

Inland Fisheries Ireland adopts procedures in accordance with the guidelines issued by the Department of Public Expenditure and Reform covering the personal interests of Board members. In the normal course of business, Inland Fisheries Ireland may approve grants or enter into other contractual arrangements with entities in which Inland Fisheries Ireland Board members are employed or are otherwise interested.

In cases of potential conflict of interest, Board members do not receive Board documentation or otherwise participate in or attend discussions regarding these transactions. A register is maintained and available on request of all such instances.

There were no 3rd party disclosures in 2021.

	NOTES TO THE FINANCIAL	STATEMENTS FOR THE	12 MONTHS TO 31 DECEMBER 2021
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14	Retirement Benefit Costs		
		2021	2020
	Analysis of total Retirement benefit costs charged to the Statement of		
a	Income and Expenditure and Retained Revenue Reserves	€	€
	Current service costs	5,608,000	4,593,000
	Interest on retirement benefit scheme liabilities	1,100,000	1,667,000
	Employee contributions - Non Single Pension Scheme	(515,006)	(526,816)
	Employee contributions - Single Pension Scheme (less		
	refunds of €620 in 2021 and €3,846 in 2020)	(226,774)	(178,710)
		5,966,220	5,554,474
ь	Movement in Net retirement benefit obligations during the financial year		
	Net retirement benefit obligation at 1 January	(155,978,981)	(138,159,675)
	Current Service Cost	(5,608,000)	(4,593,000)
	Interest Costs	(1,100,000)	(1,667,000)
	Experience gains on retirement benefit obligations Change in assumptions underlying the present value of	1,501,000	(245,000)
	retirement benefit obligations	(828,000)	(14,350,000)
	Total actuarial gain/(loss) in the year	673,000	(14,595,000)
	Pensions paid in the period	3,422,801	3,035,694
	Net retirement benefit obligation at 31 December	(158,591,180)	(155,978,981)

c Deferred Funding for Pensions

Inland Fisheries Ireland recognises these amounts as an asset corresponding to the unfunded deferred liability for retirement benefits on the basis of the set of assumptions described above and a number of past events. These events include the statutory basis for the establishment of the pension scheme, and the policy and practice currently in place in relation to funding public service pensions including contributions by employees and the annual estimates process. Inland Fisheries Ireland has no evidence that this funding policy will not continue to meet such sums in accordance with current practice.

The Net Deferred Funding for retirement benefits recognised in the statement of Income and Expenditure and retained revenue reserves was as follows:

	2021	2020
	€	€
Funding Recoverable in respect of current year Retirement benefit costs	(6,708,000)	(6,260,000)
State Grant applied to pay retirement benefits	3,422,801	3,035,694
	(3,285,199)	(3,224,306)

The deferred funding asset for retirement benefits as at 31 December 2021 amounted to € 158,590,559 (31 December 2020: €155,982,828)

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

14	Retirement benefit costs Cont.					-
		2021	2020	2019	2018	2017
d	History of defined benefit obligations	¢	¢	€	¢	¢
	Defined benefit obligations	(158,591,180)	(155,978,981)	(138,159,675)	(121,734,963)	(119,614,303)
	Experience gains / (losses) on defined benefit scheme liabilities	1,501,000	(245,000)	2,489,000	2,005,000	(917,000)
	Percentage of Scheme Liabilities	0.9%	-0.2%	2%	2%	-1%

e

The total amount recognised in the Statement of Comprehensive Income amounts to €673,000 (Experience gain/loss €1501,000 and changes in assumptions -€828,000)

f General Description of the Scheme

The pension scheme is a defined benefit final salary pension arrangement with benefits and contributions defined by reference to current "model" public sector scheme regulations. The scheme provides a pension (eightieths per year of service), a gratuity or lump sum (three eightieths per year of service) and spouse's and children's pensions. Normal Retirement Age is a member's 65th birthday and pre 2004 members have an entitlement to retire without actuarial reduction from age 60. Pensions in payment (and deferment) normally increase in line with general public sector salary inflation.

Section 50 of the Inland Fisheries Act states - "The pension payments and other superannuation liabilities of Inland Fisheries Ireland in respect of their former employees become on the establishment day the liabilities of IFI"

The valuation used for FRS102 disclosures has been based on a full actuarial valuation 31 December 2021 by a qualified independent actuary taking account of the requirements of the FRS in order to assess the scheme liabilities at 31 December 2021 of IFI.

The principal actuarial assumptions were as follows:	31.12.21	31.12.20
Rate of increase in salaries	3.50%	2.90%
Rate of increase in pensions in payment.	2.00%	1.40%
Rate of pensions increases - Superannuation Scheme	2.50%	1.90%
Rate of pensions increases - SPSPS	2.00%	1.40%
Discount Rate	1.25%	0.70%
Inflation Rate	2.00%	1.40%

The mortality basis adopted allows for improvements in life expectancy over time, so that life expectancy at retirement will depend on the year in which a member attains retirement age (age 65.) The table below shows the life expectancy for members attaining age 65 in 2021, 2041.

Year of attaining age 65	2022	2042
Life expectancy - male	21.5	23.1
Life expectancy - female	24.1	25.5

b

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

15 Lease Commitments

a Lease commitment payable after five years relates to a warehouse on Ballysimon Road, Limerick. At 31 December 2021 Inland Fisheries Ireland had the following future minimum lease payments under non-cancellable operating leases for each of the following periods:

	€000's
Payable within one year	37
Payable within two and five years	147
Payable after five years	37
	221

ŧ

Operating lease payments recognised as an expense were € 36,809 (2020: € 43,409). Capital Commitments Capital Commitments of € 1,745,934

16 Inventory includes Stock of Work Wear which will satisfy workwear requirements for the next 2-3 years.

	-
Opening Balance of Work Wear in hand	1,519,847
Purchases	-
Less Written off	-
Less Distributed to Staff during 2021	233,417
Closing Balance of Work Wear in hand	1,286,431

17 Cash and cash equivalents

Included in IFI's year end bank balances of \notin 9.81 million are amounts of \notin 4.6 million being monies received but deferred at year end in respect of the Salmon Conservation Fund, the Rural Recreation Fund, the National Strategy for Angling Development, Scientific Eels and Angling for All. These monies are restricted for use on these projects.

The following funds are held by IFI and will be distributed when projects are complete - Salmon Conservation Fund €3.54 million, National Strategy for Angling Development € 528K, Rural Recreation Fund € 172K, Scientific Eels € 180K. In addition there is deferred income of €98K. The cash balance of c.€10m is subject to the provisions of Grant Circular 13/2014 and IFI is working with our parent department, Department of the Environment, Climate and Communications in relation to managing the balance in line with the Circular.Where Cash in hand is not ring-fenced (Salmon Conservation Fund, the Rural Recreation Fund, the National Strategy for Angling Development, and Scientific Eels) efforts were made in conjuction with the parent department to reduce the bank balance.

NOTES TO THE FINANCIAL STATEMENTS FOR THE 12 MONTHS TO 31 DECEMBER 2021

18 Events after the reporting date

The global Covid - 19 pandemic was still on-going during 2021. Operational Field Activities continued throughout the year of 2021. Whilst in the period Jan – June 2021, field staff were accommodated in single occupancy vehicles for health & safety reasons, dual vehicle occupancy was implemented from 2 June onwards (this facilitated a return to a normal occupational delivery). Office bound staff (predominately in the support services divisions) continued to work from home for most of the year. Public offices remained closed with alternative arrangements in place to serve public stakeholders. Regional offices nationwide and head office in Citywest, Dublin 24 opened to the public from 20th September 2022 and support services staff have been working to a hybrid working roster which provides cover to man public offices 5 days per week (Mon-Fri). By Q3/Q4 2021 full service in operational field services (i.e. protection & development), research and administration support services was back to prepandemic productivity levels. The performance and operations of Inland Fisheries Ireland are being monitored closely and regular cash flow forecasts are provided to the Board and to our parent department Department of the Environment, Climate and Communications.

Going concern - The Board considers that, as the entity provides a public service that is funded by moneys provided by the Exchequer, via its parent department Department of the Environment, Climate and Communications, it is appropriate to prepare these financial statements on a going concern basis.

19 Approval of Financial Statements

The financial Statements were approved by the IFI Board on the 30th March 2022