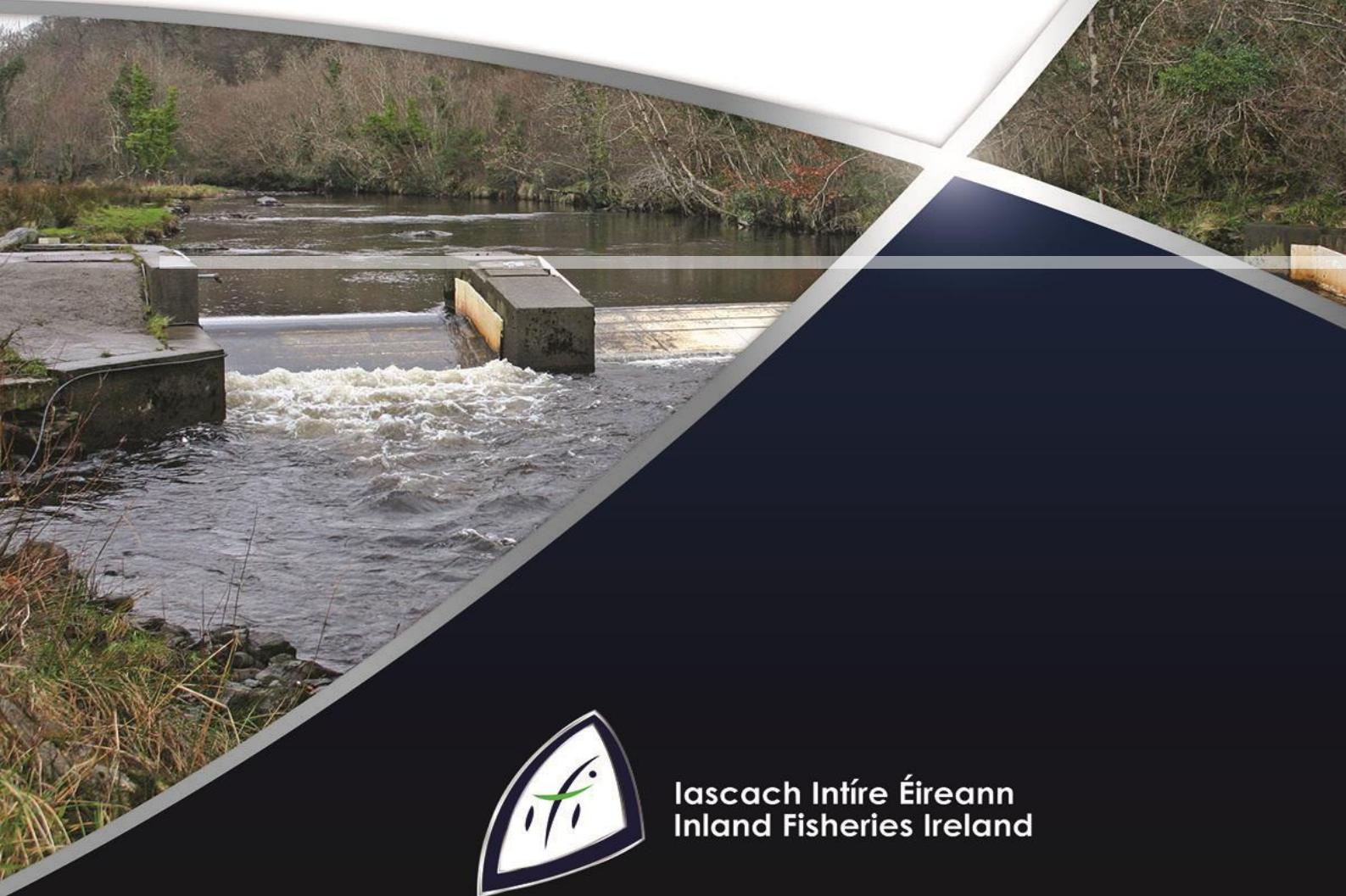


# IFI Consolidated Fish Counter Summary Report

**2017**

IFI/2018/1-4403



Iascach Intíre Éireann  
Inland Fisheries Ireland

# Foreword

Since Inland Fisheries Ireland (IFI) came into existence IFI has set about the task of consolidating all counters and counter data under the one branch of the organisation. In addition a substantial effort has been made to continually upgrade the counter network and up skill the operators to ensure IFI operates the best data collection service available.

IFI allocates time each year to plan and look for current trends and future developments which could be incorporated into the fish counter programme. The future development of the counter network will require significant research and development as the Aquantic counter is no longer available and repairs to the existing boards are not possible at present. This situation is evolving and it will take some time to put a structure for repairs and replacements in place to ensure the future of the existing fish counter programme.

The national network of counters operated successfully over the twelve month period. The down time on all counter sites is at a very low rate due to the efforts and systems put in place in the last number of years. Investment in new CPU's has started with the development of a standard modern computer which is suitable for the programme. Research into camera technologies has started in an effort to replace the current DVR boards which are no longer available. The website database is updated by the operators and maintenance records are stored with the data which validates the data collected. These reporting and maintenance records are being retained on the web site database. The database has been further developed to allow historic data to be uploaded by the administrator this will ensure all data for each river is available to management.

IFI have developed a policy, governing data collected by its network of counters. The policy sets out the rules regarding the storage, management and sharing of fish counter data. A number of significant challenges lie ahead for the current fish counter programme.

**Gregory Forde**

Head of Operations

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# Introduction

The following report is a brief look at each of the counters operated by IFI. Information for the report has been gathered over the year by staff operating; maintaining and cleaning counters to ensure accurate counts are available. The data gathered annually is put in context when it is compared to data from previous years – previous years reports are available on the IFI website. When reviewing data in this context it is possible to understand the importance of consistent counts of fish to add to the cumulative dataset for each river year on year. The fish counter programme is focused at counting salmon nationally but a small number of counters are specifically configured to count sea trout.

During 2017 the number of counters which did not provide continuous counts was insignificant as temporary counters were dispatched to cover the sites during repairs. The National network of counters operated successfully over the twelve month period. The down time on all counter sites has decreased as new solutions are found and spares have been held centrally and dispatched as required. One site has suffered some structural degradation which is as a result of the type of construction on this weir. This has resulted in the data from this counter being downgraded to unverified data.

The inclusion of a reporting and maintenance record section on the new internal web site which automatically contacts those responsible for repairs and the Head of Operations ensures a quick response time. The web site has been further developed to enable the IFI administrators to carry out function which previously had required the programmer. The web site has enabled IFI to achieve consistence practice on all sites by numerous staff uploading the data. IFI have developed a policy, governing data collected by its network of counters. The policy sets out the rules regarding the storage, management and sharing of fish counter data.

# 1 River Fane



Type : Logie

Operating: Jan – Dec 2017

Performance: Good

Verified: Yes

## 1.1 River site and description

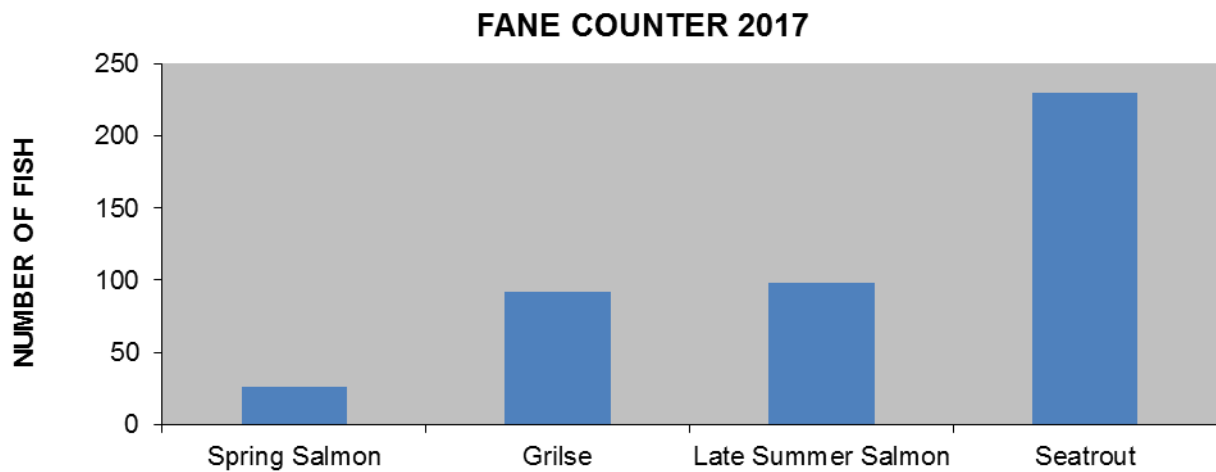
The fish counter is sited at Stephenstown, on the Dundalk to Ardee road. It is a Logie, resistivity, counter with two channels covering the width of the River Fane. The counter is managed by IFI staff from the Dundalk District. The data is downloaded and verified on the computer system which is housed in the Dundalk Salmon Anglers hatchery facility near the weir.

## 1.2 Operation

The counter worked well during the year with maintenance being carried out regularly. The counter performed well on this weir as the connections on the weir were upgraded and sealed. New camera cable was laid to upgrade the old cable. The new cable will allow staff operating the site to change cameras on the weir if required. The counter provided good data for 2017. Additional works to upgrade the facility from a health and safety point of view have taken place.

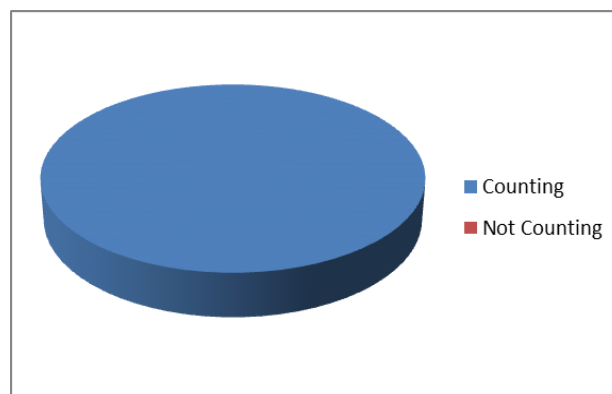
**Table 01: Counter data for the R.Fane**

Fish Species	Number
Spring salmon	26
Grilse	92
Late Summer Salmon	98
Sea Trout	230

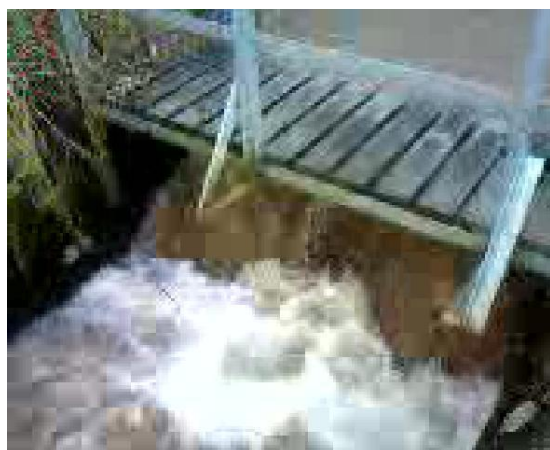


**Table 02: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



## 2 River Dee



Type : Vaki

Operating: Jan – Aug 2017

Performance: Good

Verified: Yes

### 2.1 River site and description

The fish counter is sited at Cappogue, on Drumcar Weir, on the Drumcar to Dunleer road, County Louth. It is a Vaki counter and records the fish as they move up and down through the fish pass on the side of the weir. This counter is a partial counter and the percentage of the fish counted depends on weather and water level. This data is uploaded by IFI staff from the Dundalk District. The data is verified on site using the Winari software.

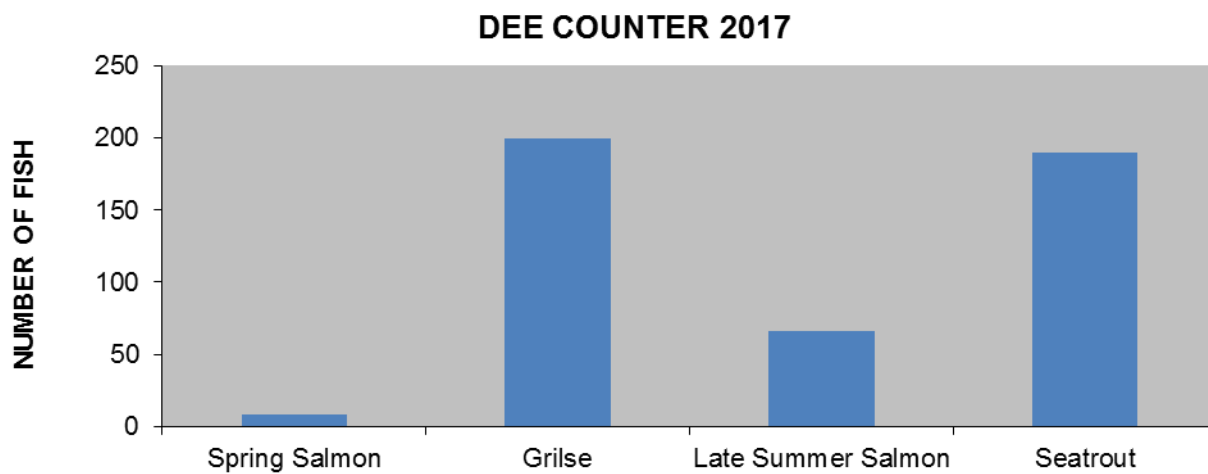
### 2.2 Operation

The Vaki counter has worked well from January to August. This is an older type Vaki which has struggled to provide continuous accurate data and parts are difficult to source but to date it has counted fish travelling upstream successfully. The counts from September on are suspect and therefore the counter is illustrated here as not working for this period.

An application for new equipment to the NSAD fund in November 2017 was successful and its hope this equipment will be replaced in 2018.

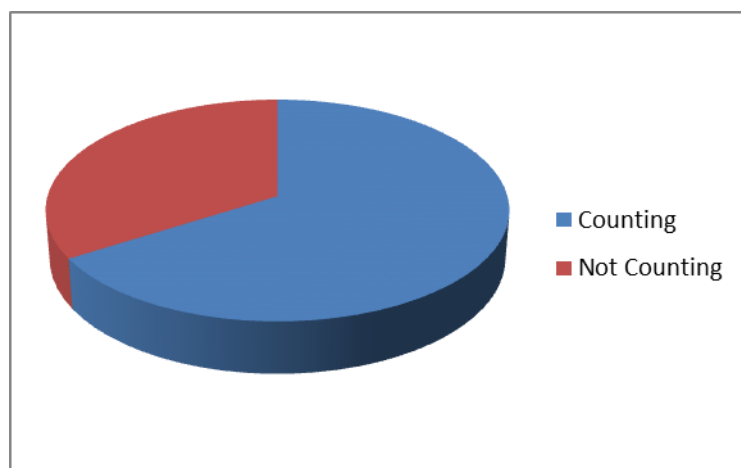
**Table 03: Counter data for the R. Dee**

Fish Species	Number
Spring salmon	08
Grilse	200
Late Summer Salmon	66
Sea Trout	190



**Table 04: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
243	122





## 3 Boyne Counter



Counter type: Logie and Vaki

Operating: Jan – Dec 2017

Performance: Good

Verified: Yes

### 3.1 River site and description

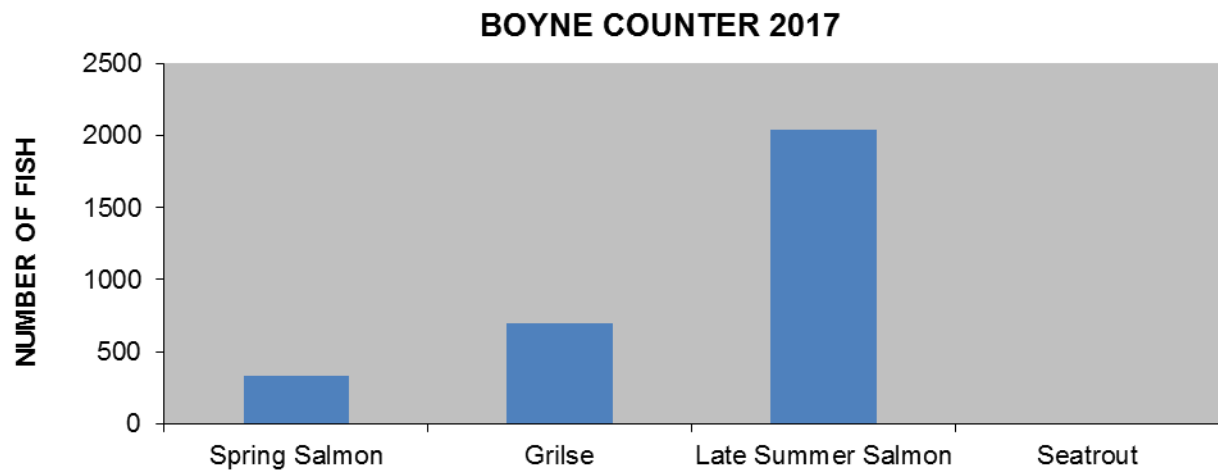
The Fish counters at Blackcastle in Navan, Co. Meath consist of 6 different channels which count fish travelling up and down the River Boyne system. These are made up of 4 crumps which record fish as they pass over the weir and two Vaki counters that count fish as they pass through two tunnels on either side of the crump weirs. The counters account for approximately 20% of the total width of the channel at Blackcastle. The weir at Blackcastle makes up the remaining 80%.

### 3.2 Operation

The counters give an accurate total of the fish that travel through them, the amount of fish that cross up and down on the other parts of Blackcastle Weir is unknown. This counter provides a partial count but counts a high percentage of the run of fish. The connections to the electrodes from the counter have been upgraded using a resin filled waterproof box. This will eliminate any events being caused by damp connections which was an issue in the past on some counters. All the counters on this site worked well for the period and provided accurate data. This counter is set up to count salmon only.

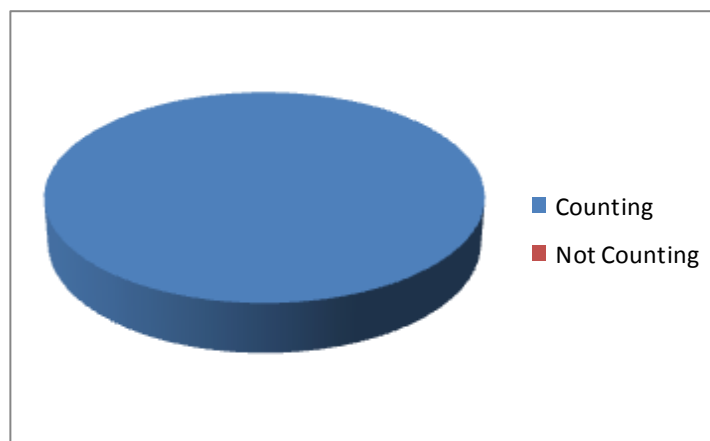
**Table 05: Counter data for the R. Boyne**

Fish Species	Number
Spring salmon	333
Grilse	698
Late Summer Salmon	2042
Sea Trout	0



**Table 06: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



## 4 Slaney Counter



Counter Type: Logie

Operating: Jan – Dec 2017

Performance: Good

Verified: Yes

### 4.0 River site and description

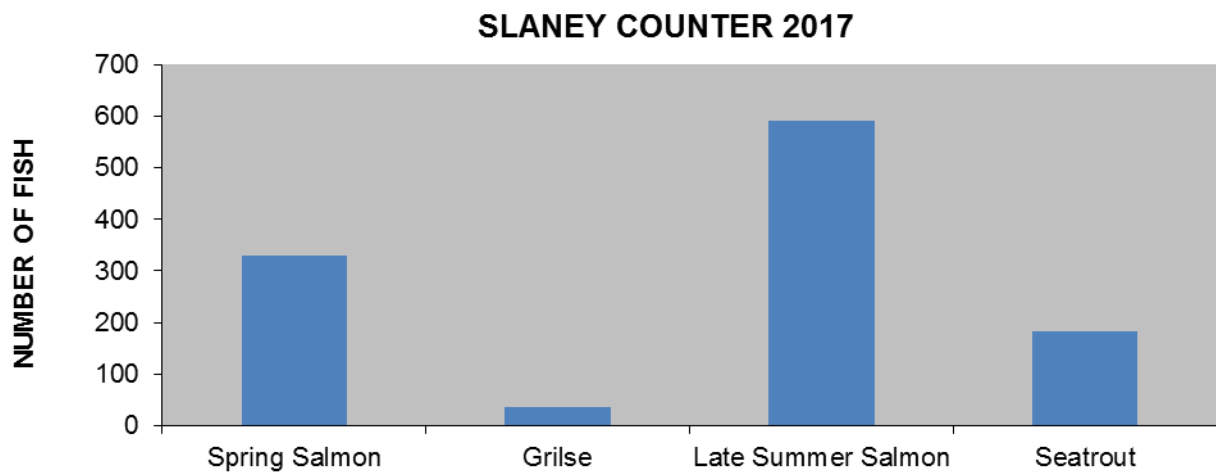
The system used on the Slaney is a Logie fish counter in conjunction with a tube fish pass that counts salmon and sea trout which enter the tube on their return to the river from the sea. An underwater surveillance camera is used to verify the fish count recorded on the counter. The site of the counter at Clohamon weir is approximately 30 miles from where the Slaney enters the sea through Wexford Harbour. The counter is a partial counter as fish can traverse the weir in flood conditions.

### 4.1 Operation

The counter is both efficient and accurate in terms of the fish that actually move upstream or downstream through the tube, but an unknown proportion of the run by-passes the counter at other points on the weir. The in-stream structure housing the counter was severely damaged in flooding in January 2016. The counter was recommissioned in December 2016 and significant works were carried out to make this a more efficient counter site. This site has operated well for 2017.

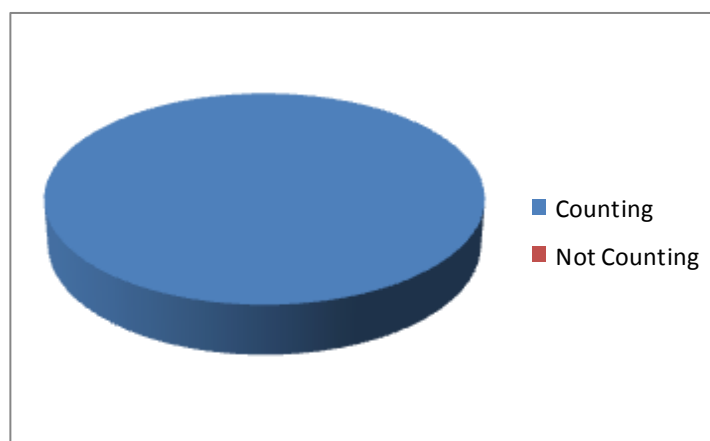
**Table 07: Counter data for the R. Slaney**

Fish Species	Number
Spring salmon	329
Grilse	35
Late Summer Salmon	592
Sea Trout	182



**Table 08: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



## 5 Kerry Blackwater



Type : Logie

Operating: Jan – Dec 2017

Performance: Good

Verified: Yes

### 5.1 River site and description

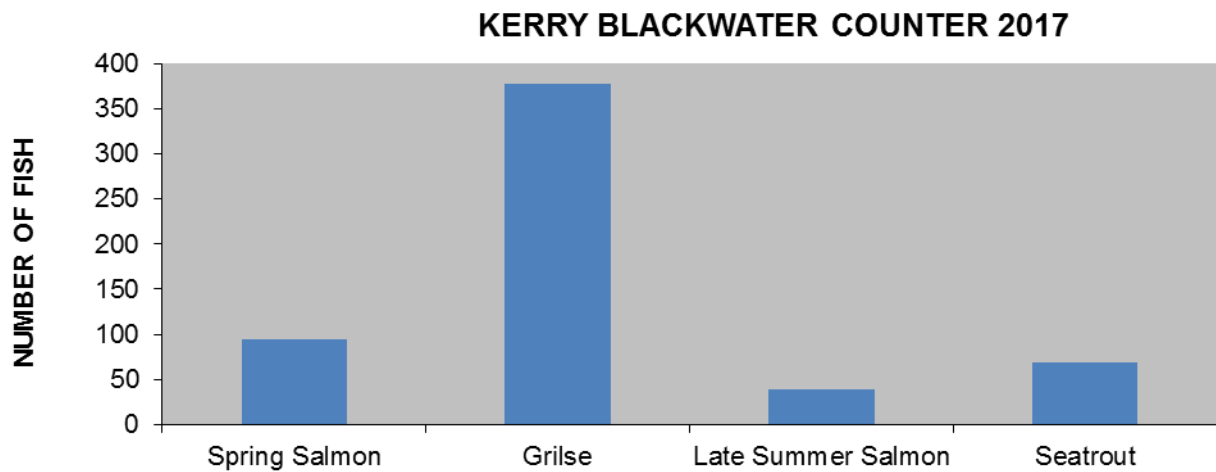
The Kerry Blackwater counter is located one hundred meters upstream of the estuary. It is a Logie restivity counter which operates over three channels and gives a total count for the river. The river is currently open for angling on a catch and release basis. The river is sixteen miles long with one small lake and is considered a spate river.

### 5.2 Operation

The counter operated well during the year. The site has been checked regularly and the system assessed due to the low numbers of fish being recorded crossing the weir. The existing camera was remounted out of the river to ensure it operated throughout the season without damage from flooding. The counter is providing accurate results for the river system. The wiring to the counter has been re-covered following flooding. Additional minor works on one electrode is required when the water level drops.

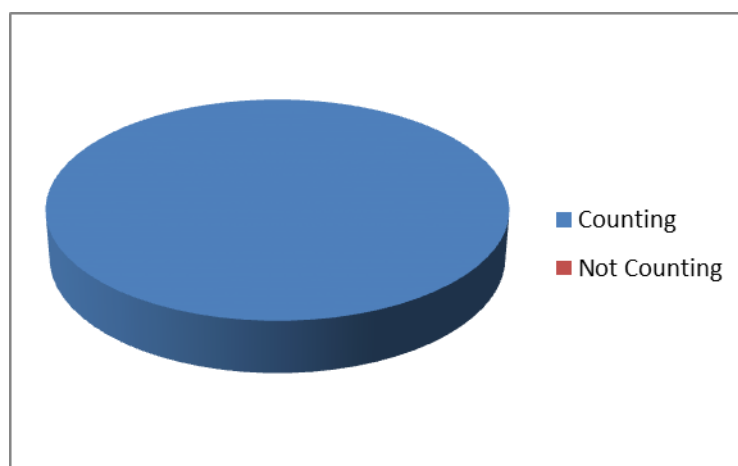
**Table 09: Counter data for the Kerry Blackwater River**

Fish Species	Number
Spring salmon	95
Grilse	377
Late Summer Salmon	39
Sea Trout	69



**Table 10: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



# 6 Waterville



Type : Logie

Operating: Jan –Dec 2017

Performance: Good

Verified: Yes

## 6.1 River site and description

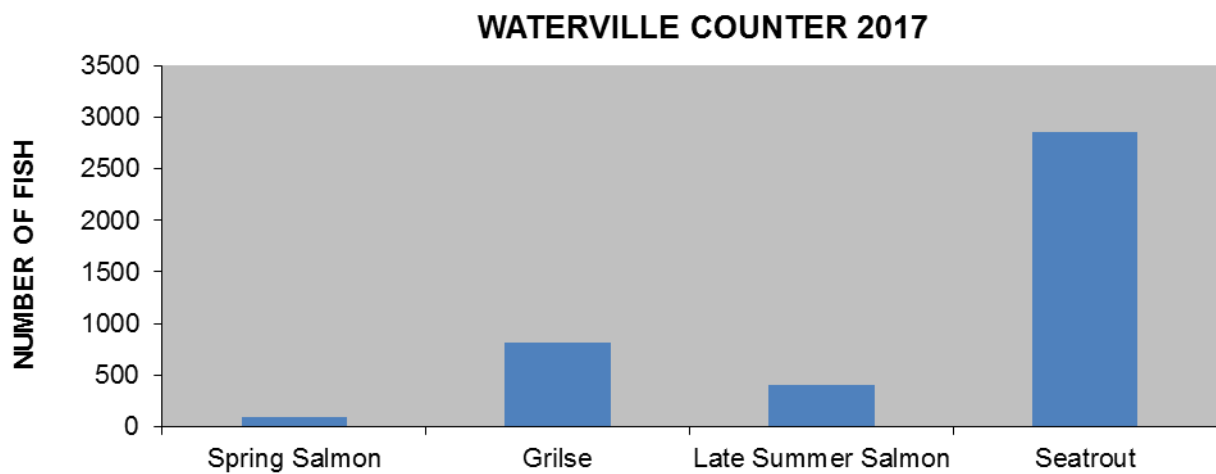
The Waterville counter is located upstream of the estuary in the estate grounds of Waterville house. The counter is a logie restivity counter which operates four counting crumps giving a total count for the river system. The electrodes are spaced primarily for counting sea trout not salmon. The data to date has been verified by CCTV camera.

## 6.2 Operation

The counter has operated well over the course of the year. An additional pool camera has been installed by IFI to accommodate Waterville House. The connections to the counter have been replaced to upgrade the quality of data being collected. The computer which operates the Geovision surveillance camera has also been replaced. In December 2017 significant electrical damage occurred to the counter and computer. Repair works are required to replace some of the plastic damaged in flooding in late December. The counter was not operational in January and February 2017.

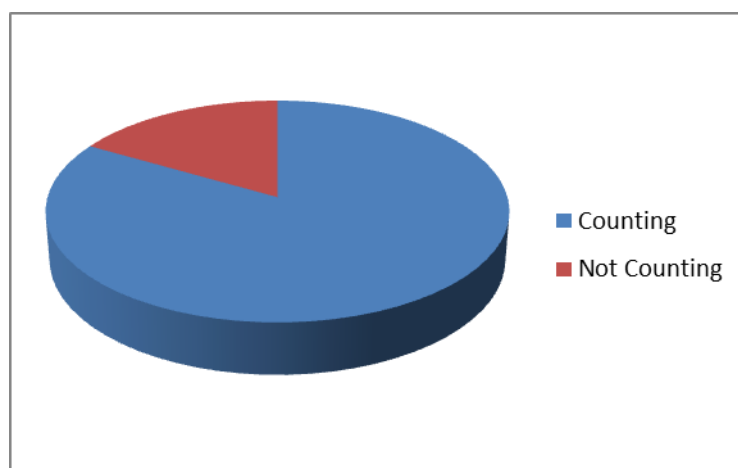
**Table 11: Counter data for Waterville**

Fish Species	Number
Spring salmon	88
Grilse	808
Late Summer Salmon	397
Sea Trout	2862



**Table 12: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
304	61





## 7 River Maine



Type : Logie

Operating: Jan –Dec 2017

Performance: Good

Verified: No

### 7.1 River site and description

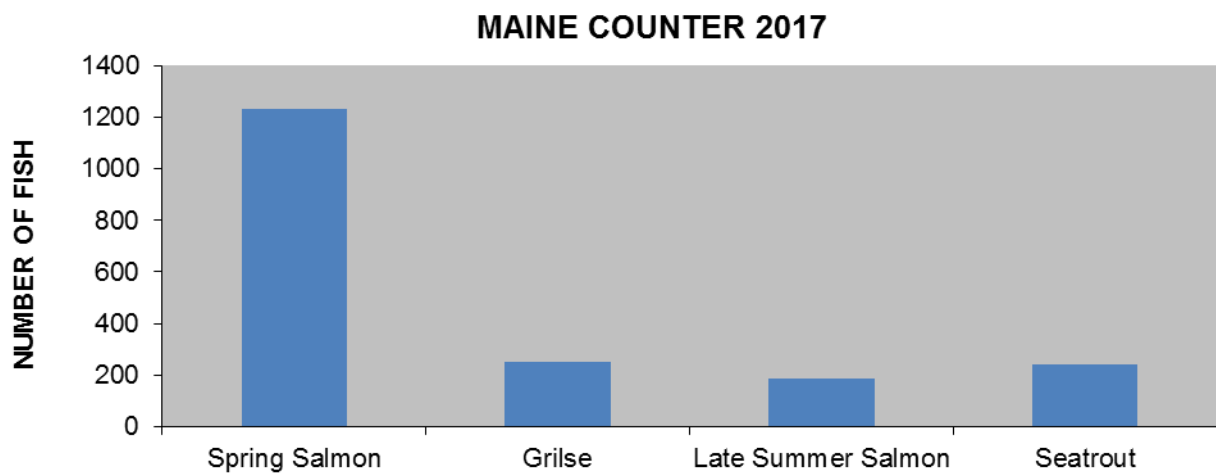
The fish counter on the Maine is a logie restivity counter operating four channels which span the river giving a total count. The counter weir is located upstream of “Marshall’s bridge” and was commissioned in late 2009. The counter site is six miles from the sea but only half a mile upstream of the intertidal zone.

### 7.2 Operation

The counter has operated well for the 2017 season as a result of the completion of upgrades to the connections. The counter was checked and reconfigured a number of times during the year to ensure the best count possible was available. Significant debris crossing and getting lodged on the weir has caused an increase in the number of events being recorded. The construction of the weir, which has precast crumps, has significant background noise which affects the accuracy of the counter. The data from this weir has been downgraded to unverified due to the level of background noise on the weir.

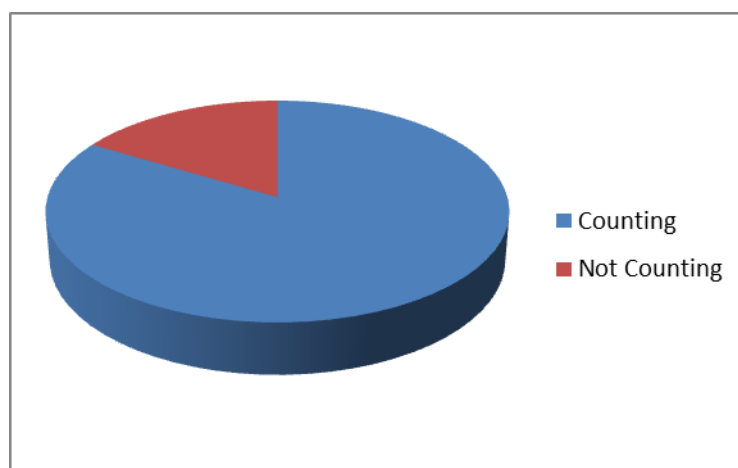
**Table 13: Counter data for the Maine River**

Fish Species	Number
Spring salmon	1233
Grilse	253
Late Summer Salmon	185
Sea Trout	241



**Table 14: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
305	60



# 8 Feale River



Counter type: Logie

Operating: Jan-Dec 2017

Performance: V. Good

Verified: Yes

## 8.1 River site and description

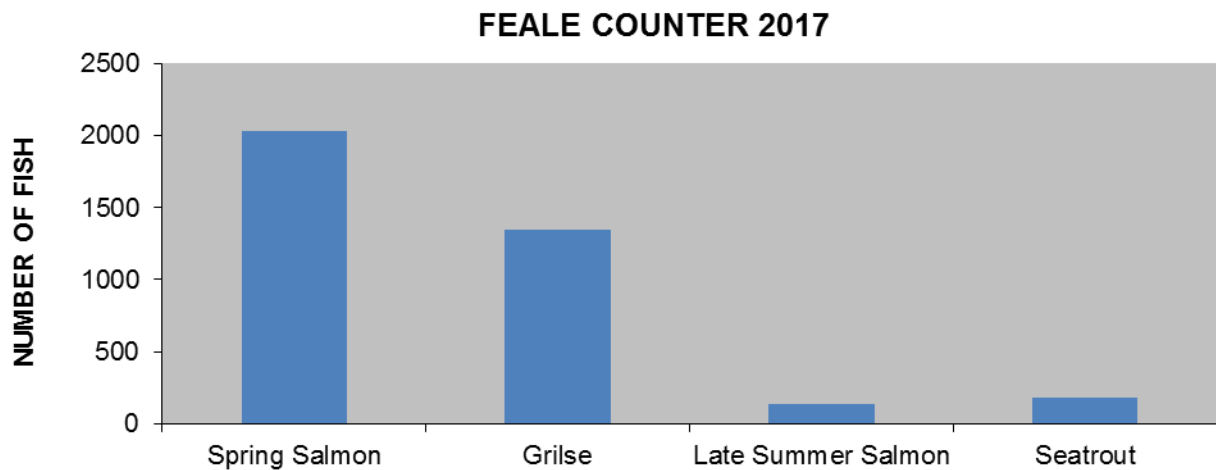
The River Feale rises in the Mullaghareirk Mountains in County Cork and meanders approximately 74 kilometres before joining with the Galey and Bricks Rivers becoming the Cashen River. The River Feale counter is located approximately 5 kilometres downstream of Listowel Town in the townland of Scartleigh at the Kerry County Council water abstraction plant. The River Feale is above its conservation limit and is therefore open for angling.

## 8.2 Operation

The counter is a one channel counter operated on a crump which was installed to assist fish over the large weir. The counter operated well over the course of the summer. This counter provides consistent accurate data. A new camera was installed early in the summer. A small number of fish have been seen by-passing the counter by going over the weir in high water conditions. The counter needs attention in the coming years to ensure it continues to provide accurate information. This counter is set up to count salmon.

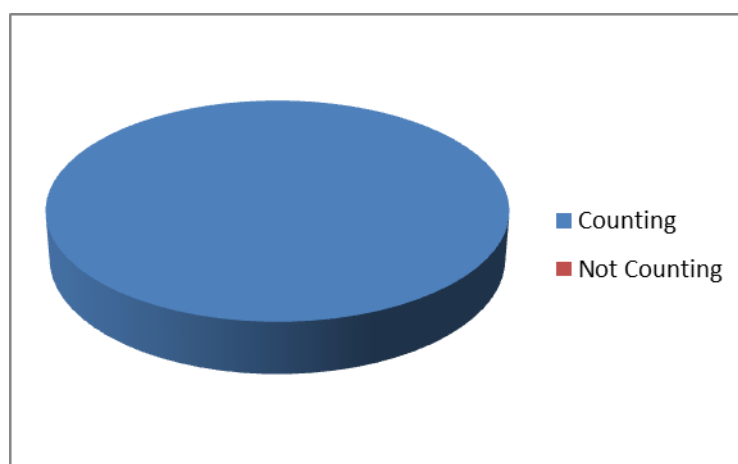
**Table 15: Counter data for the Feale River**

Fish Species	Number
Spring salmon	2028
Grilse	1346
Late Summer Salmon	138
Sea Trout	181



**Table 16: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



# 9 Mague River



Counter type: Logie

Operation Period: Jan – Dec 2017

Performance: Good

Verified: No

## 9.1 River site and description

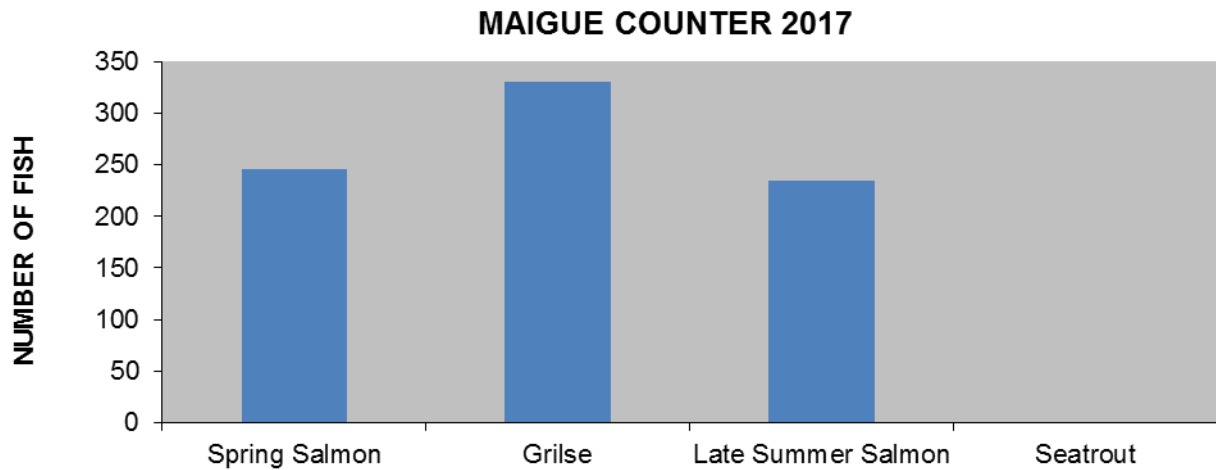
The River Mague rises at the base of the Ballyhoura and Slievenamuck Mountains in the Galtee Mountain range in south County Limerick. It drains a large catchment area of 1,009km<sup>2</sup> extending from Ballylanders and Kilfinnane in the Southeast, flowing Northwest through the villages of Croom and Adare then turning north into the Shannon estuary at the Ferry Bridge, not far from Kildimo village. The River Mague catchment area is characterised predominantly by rich pasture land and forms part of the renowned 'Golden Vale' agricultural area.

## 9.2 Operation

The Mague counter is a ten channel counter. The counter was completed on March 2013 and is a re-engineered crescent shaped weir. The site uses three counters to count all ten channels and therefore requires a greater amount of time to maintain and verify. The counters have recorded limited data in 2017. Data collected on this site is considered unverified due to the on/off nature of the counter during redevelopment works at Adare Manor golf course. The counting weir requires work after each winter to connections and electrodes due to significant debris and velocity of water during flood events.

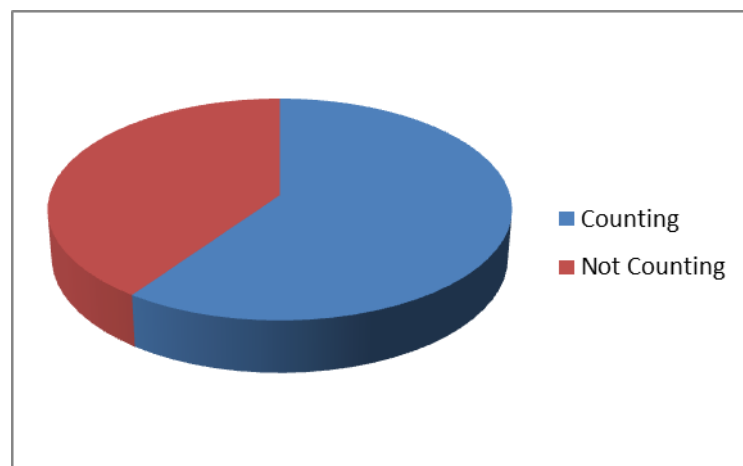
**Table 17: Counter data for the Maigue River**

Fish Species	Number
Spring salmon	246
Grilse	331
Late Summer Salmon	235
Sea Trout	0



**Table 18: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
218	147



# 10 Mulkear



Counter type: Logie

Operating: Jan-Dec 2017

Performance: Good

Verified: Yes

## 10.1 River site and description

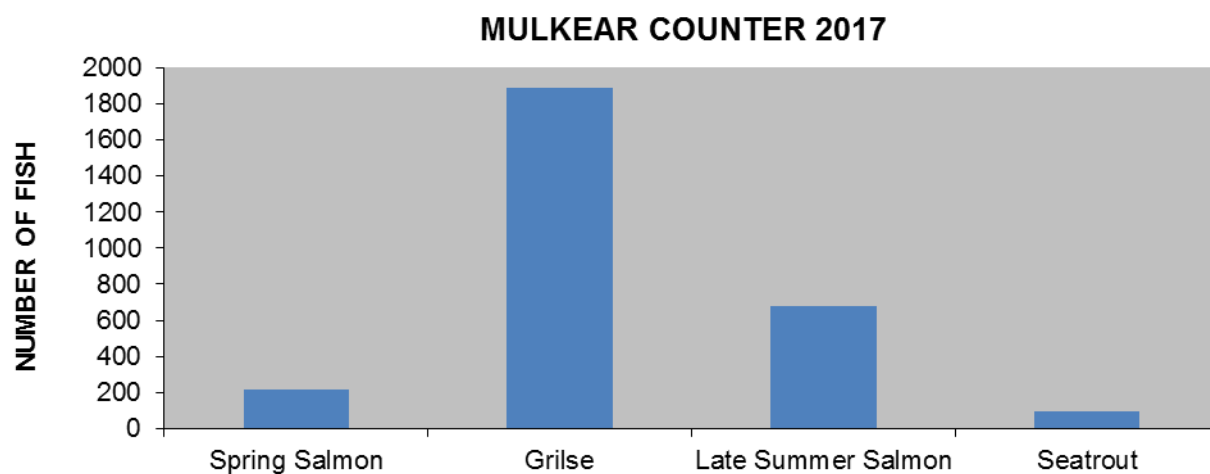
The Mulkear counter is located at Ballyclough on a purpose built crump weir approximately 3 kilometres upstream from where the mouth of the Mulkear River enters the River Shannon. Due to a large road scheme crossing the Mulkear River in 2004 an agreement was reached with the contractors to install a three channel crump weir and counter underneath the main bypass bridge located upstream of Annacotty village also included in the plans was a side channel for eel passage.

## 10.2 Operation

The counter worked well and provided accurate counts for the river. All three crumps were operational and only minimal maintenance was required to keep this counter working. A significant number of Lamprey were observed on camera crossing the weir. The site will require two new cameras to replace the existing cameras mounted high under the motorway bridge. The replacement of these is vital to the verification process for next year.

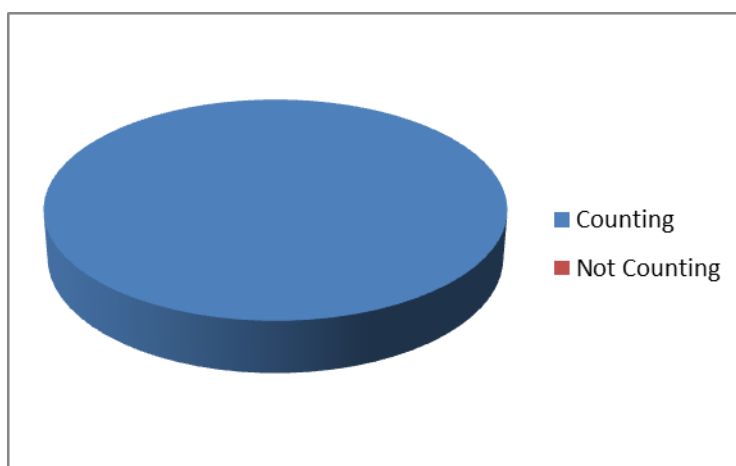
**Table 19: Counter data for the Mulkear River**

Fish Species	Number
Spring salmon	216
Grilse	1888
Late Summer Salmon	681
Sea Trout	93



**Table 20: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0





# 11 Fergus River



Counter type: Logie

Operating: Jan – Dec 2017

Performance: Good

Verified: Yes

## 11.1 River site and description

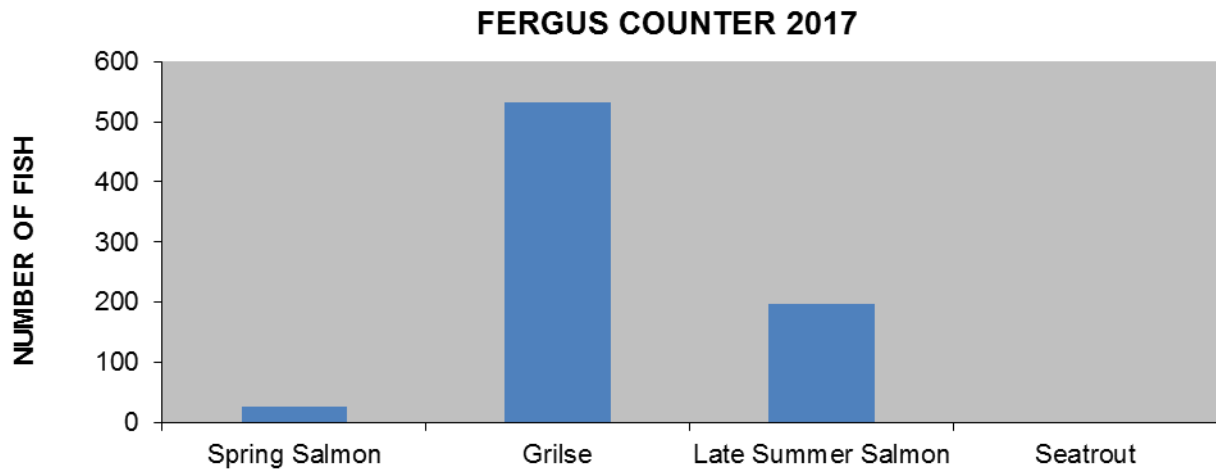
The Fergus fish counter is a recent addition to the IFI fish counter programme. The counter was installed as part of the flood relief works in Ennis. It consists of one channel located at the top of the new fish pass. The design of the fish pass is unique to allow lamprey, elvers and salmonids to migrate upstream past the old structure which is protected.

## 11.2 Operation

The counter is housed in the Civic Trust building adjacent to the river. This was upgraded to include cameras, computer and verification software which has greatly increased the capabilities of the facility. A plan to install an additional underwater camera at the site will be completed in 2018. Lamprey have not been detected by camera using the new fish pass to date. This is a partial count for the river. The percentage of the run of fish counted varies depending on water levels.

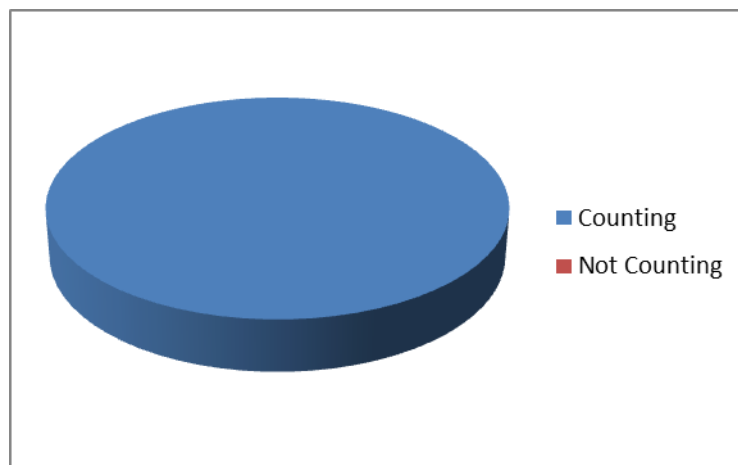
**Table 21: Counter data for the Fergus River**

Fish Species	Number
Spring salmon	26
Grilse	532
Late Summer Salmon	197
Sea Trout	0



**Table 22: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



## 12 Inagh River (Ennistymon)



Counter type: Logie tube

Operating: Jan – Dec 2017

Performance: Good

Verified: Yes

### 12.1 River site and description

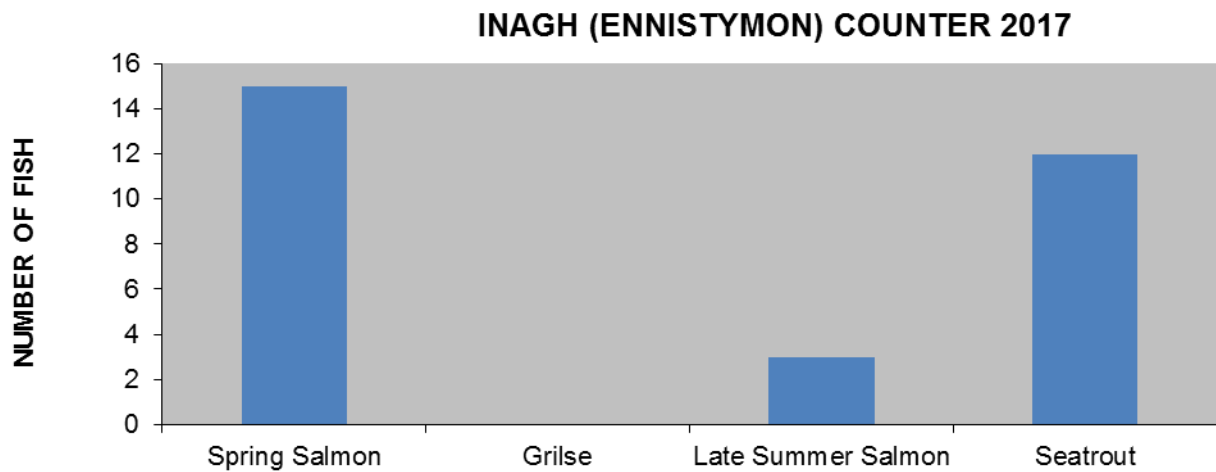
The tube counter in Ennistymon on the Inagh River has been reinstalled after nearly fifty years absence. This site at the top of the fish pass was the original site of the fish counter which was also a Logie tube counter. The current installation has CCTV verification since early January. The counter hut is in a new location and is only accessible to IFI staff.

### 12.2 Operation

The counter was connected in late December 2014. The counter has performed well during the year. The site has had some interruptions this year due to extensive construction works downstream of the counter. The construction works were to redevelop the hydroelectric station which interfered with the passage of fish through the tube for periods during the summer. The run of fish into the system was very low but fish observed by staff were picked up by the counter.

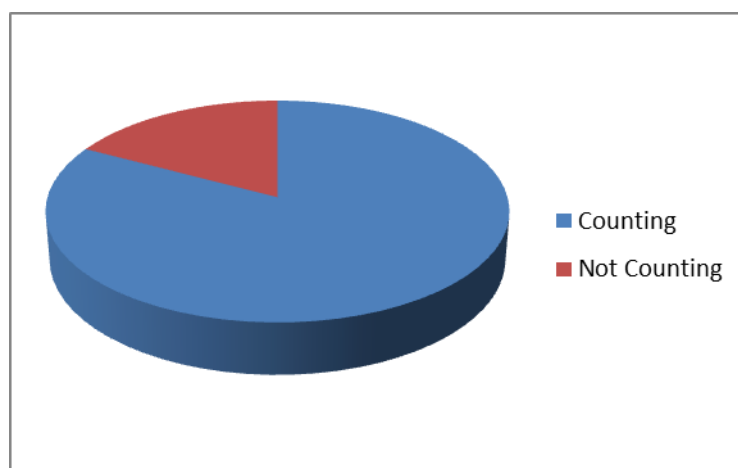
**Table 23: Counter data for the Inagh (Ennistymon) River**

Fish Species	Number
Spring salmon	15
Grilse	0
Late Summer Salmon	03
Sea Trout	12



**Table 24: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
302	63



# 13 Dunkellin River



Counter type: Logie

Operating: Jan – Dec 2017

Performance: Good

Verified: Yes

## 13.1 River site and description

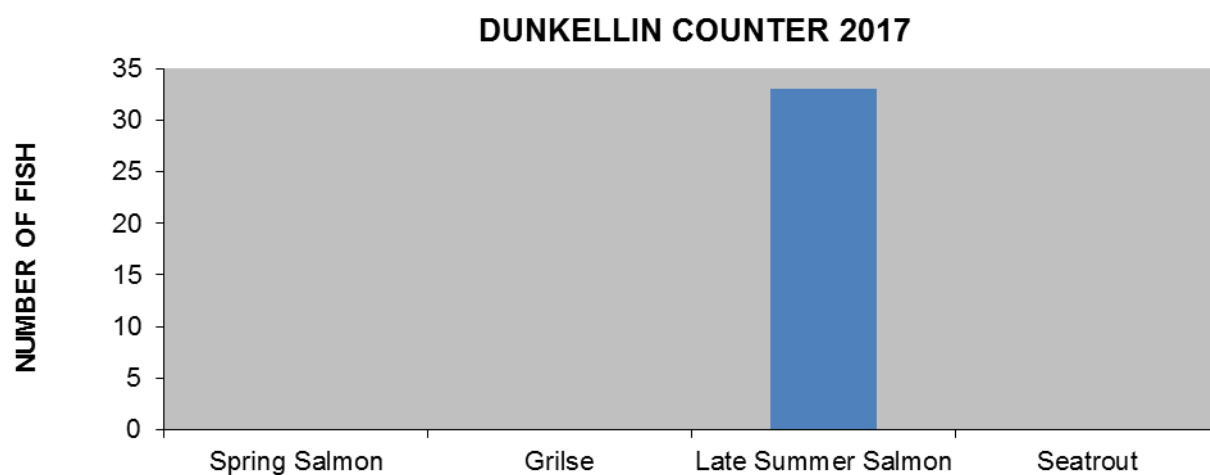
The Dunkellin counter was installed early in 2010 and operational from June of that year. The counter is located upstream of the village of Kilcolgan. The counter is a three channel counter which operates well in medium and low water. This entire area is subject to extensive flooding and this can lead to the weir and surrounding area being inundated for significant periods.

## 13.2 Operation

The counter and Geovision systems are working well. The counter is located in an area where a significant flood relief scheme is being undertaken. This involves overflow channels above and below the counter. These works have infringed on the counter and have caused damage to the electrical systems required to run the counter facility. The counter was repaired and reinstated in September and has provided data on the river since.

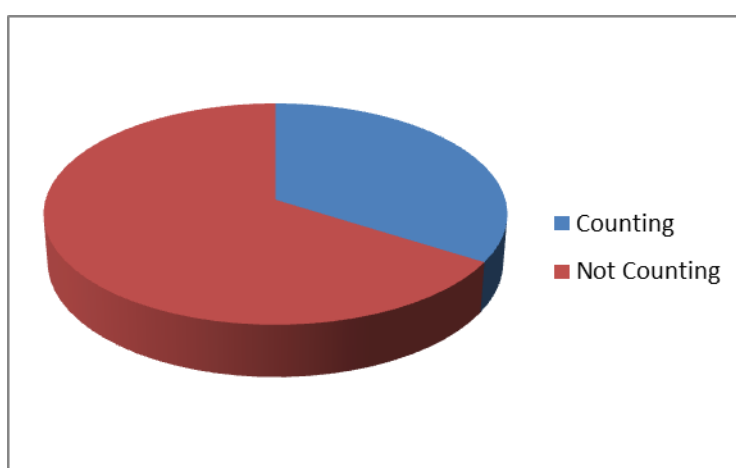
**Table 25: Counter data for the Dunkellin River**

Fish Species	Number
Spring salmon	0
Grilse	0
Late Summer Salmon	33
Sea Trout	0



**Table 26: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
323	42



# 14 Corrib Counter



Type : Logie

Operating: Jan – Dec 2017

Performance: V.Good

Verified: Yes

## 14.1 River site and description

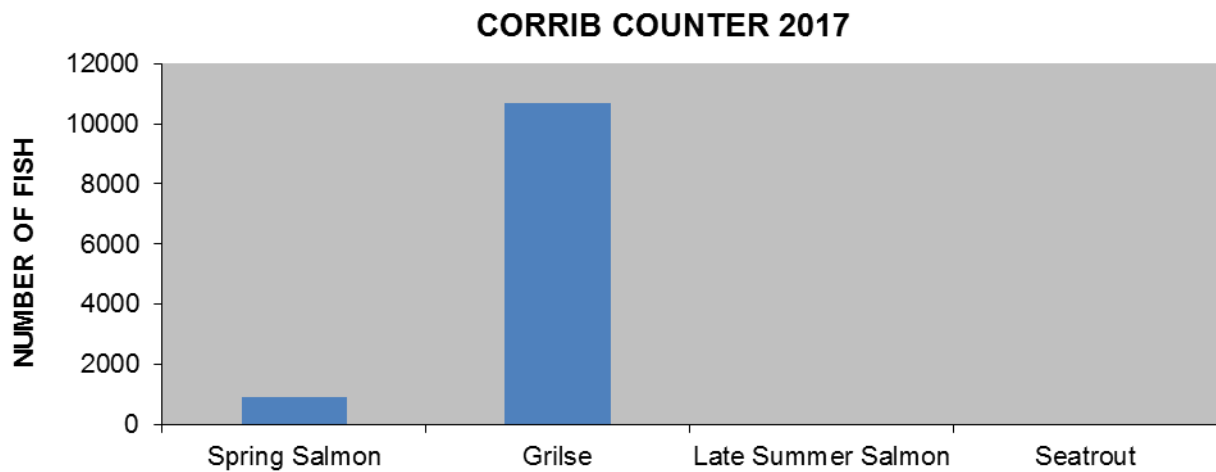
The Corrib counter is situated in a fish pass in the middle of the Salmon Weir in Galway. The system it uses is a Logie fish counter in conjunction with a tube fish pass that counts salmon which enter the tube on their return to the river from the sea. An underwater surveillance camera is used to verify the fish count recorded on the counter. Water levels invariably have an impact on the number of fish using the pass as salmon may, in high water, run upstream through opened gates. This is a partial counter as it only counts fish ascending the river through the fish pass.

## 14.2 Counter operation

The counter operated well during the 2017 season. The counter data has been verified and is accurate. The counter worked well without interruption and all the data has been verified and uploaded to the web site. This is a partial count for the river and the percentage of fish using the fish pass varies from year to year depending on the water level.

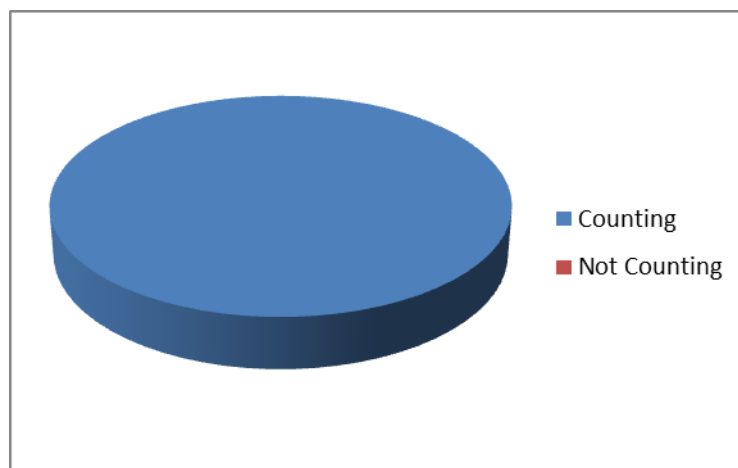
**Table 27: Counter data for the Corrib River**

Fish Species	Number
Spring salmon	903
Grilse	10679
Late Summer Salmon	0
Sea Trout	0



**Table 28: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0





# 15 Owenboliska River



Type : Logie

Operating: Jan – Dec 2017

Performance: V.Good

Verified: Yes

## 15.1 River site and description

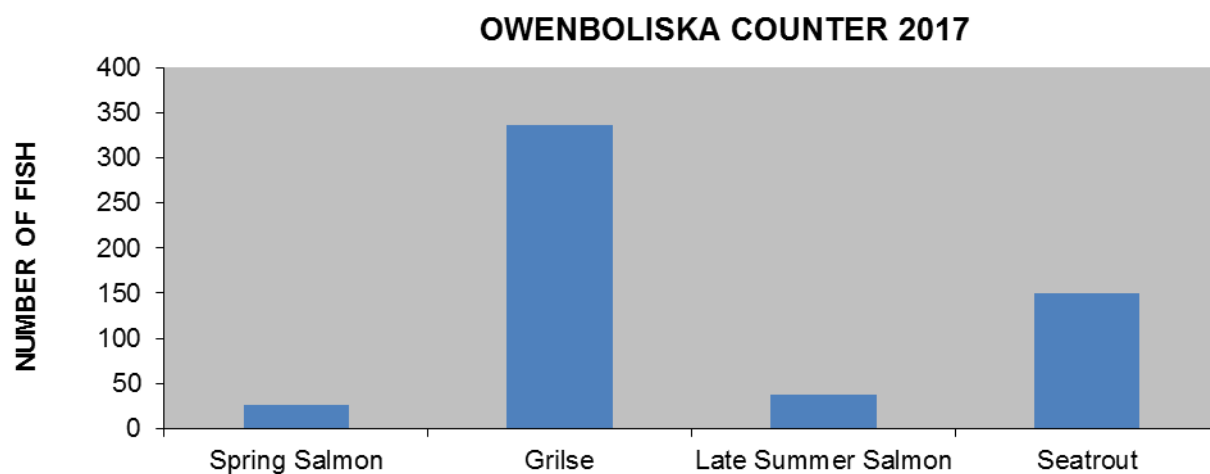
The counter is situated downstream of the village of Spiddal. The counter was constructed and commissioned by IFI in 2011 and was funded by the Salmon Conservation Fund. The counter operates on a purpose built weir with one counting channel. A verification camera system is also in operation.

## 15.2 Counter operation

The counter has been operational for the entire season with no problems recorded. The counter is affected by the dumping of water from the impounding weir on the upstream lake by the Local Authority. Sea trout can run the counter during these events and will not be detected by the counter. The sea trout data is more accurate in years where water levels are low and limited dumping of water from the impounding weir occurs. Damage to the electrodes from debris was repaired early in the year prior to the run of fish.

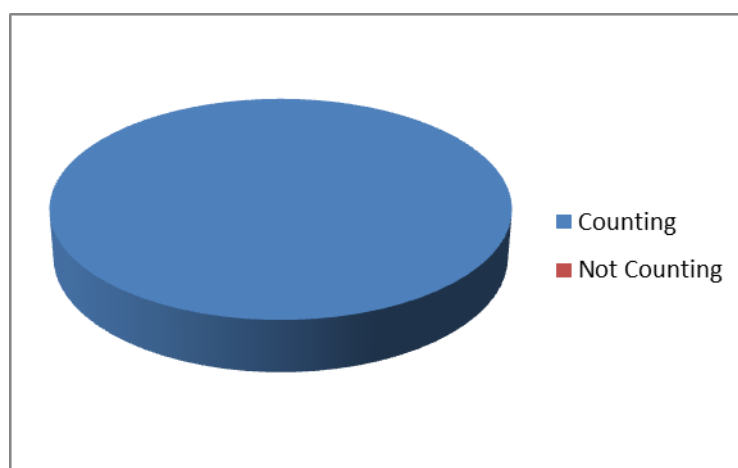
**Table 29: Counter data for the Owenboliska River**

Fish Species	Number
Spring salmon	26
Grilse	336
Late Summer Salmon	37
Sea Trout	150



**Table 30: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



# 16 Casla River



Type : Logie

Operating: Jan – Dec 2017

Performance: V.Good

Verified: Yes

## 16.1 River site and description

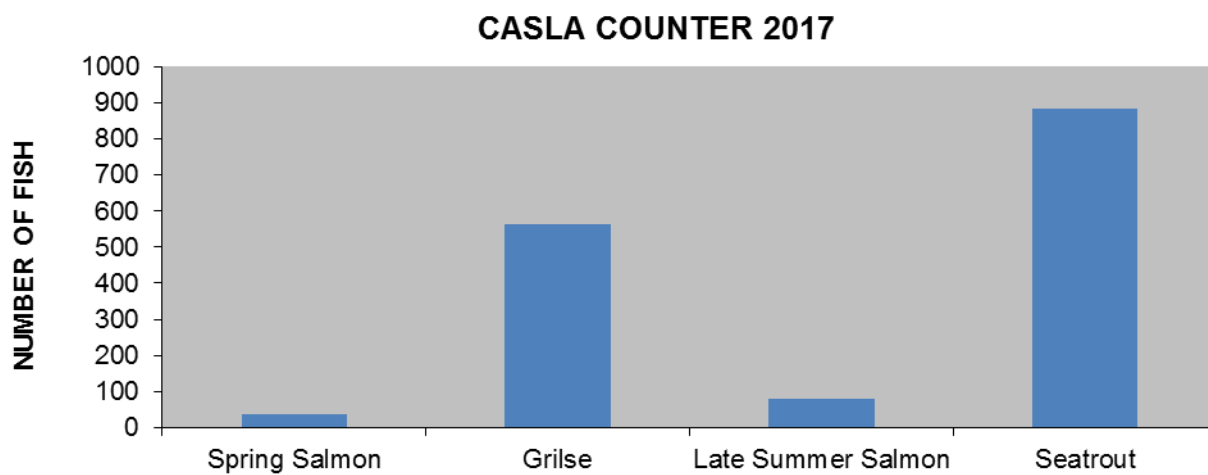
The Casla River is privately owned and is the main river of the Costello and Fermoyale Fishery. The river is six kilometres in length and drains an area of 83km<sup>2</sup> which includes 22 lakes – it is a typical sea trout system. The counter is located at a crump weir situated close to the limits of tidal influence. Under most flow conditions fish will run up over the weir.

## 16.2 Operation

The counter operated very well throughout 2017. The counter hut has been upgraded with the removal of the old pumping equipment and the installation of a new steel door. The counter functioned well during the year. The computer was changed out prior to the upgrades to the hut. The counter has provided accurate counts with no loss of data for the year. Additional upgrades to the weir are planned for early 2018.

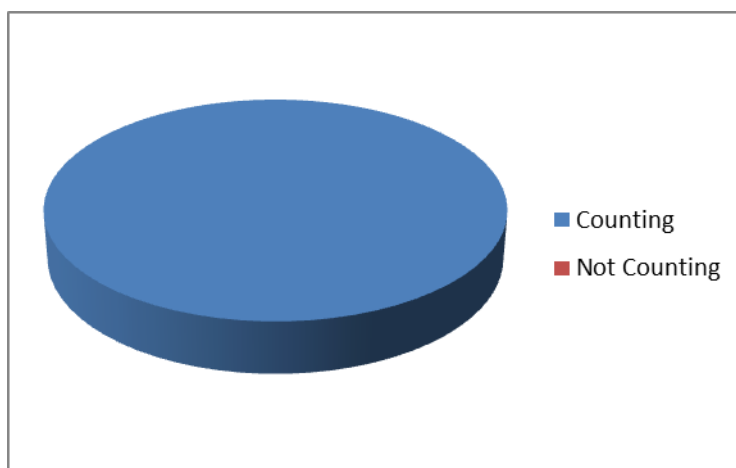
**Table 31: Counter data for the Casla River**

Fish Species	Number
Spring salmon	36
Grilse	562
Late Summer Salmon	80
Sea Trout	884



**Table 32: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



# 17 Invermore River



Type : Logie

Operating: Jan to Dec 2017

Performance: Good

Verified: Yes

## 17.1 River site and description

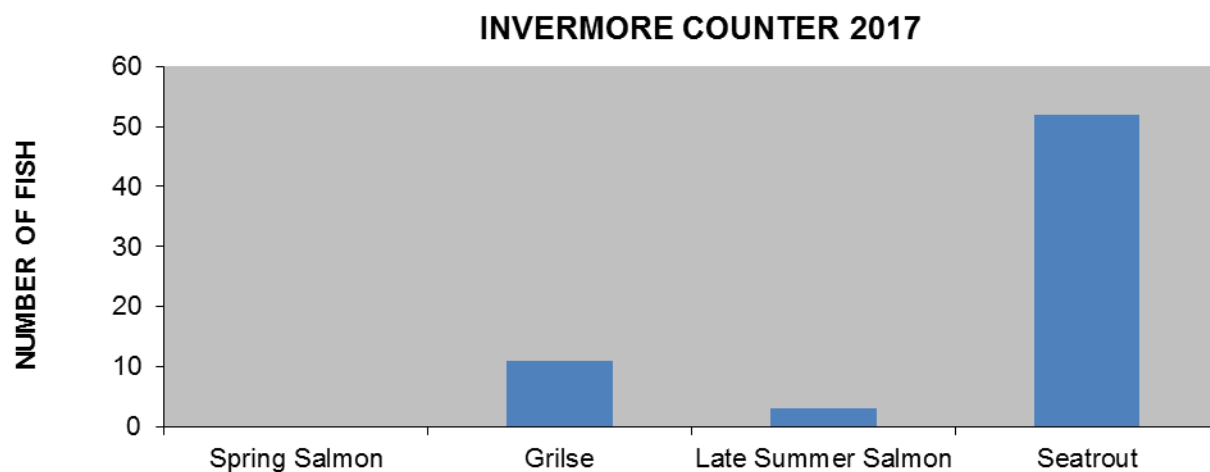
The Invermore counter is located upstream of the old trapping facility 100m above the intertidal zone. A new purpose built weir has been constructed to facilitate the counter. The electrode spacing has been set to count salmon and sea trout. The counts are verified using CCTV and uploaded to the web site.

## 17.2 Operation

The counter has worked well throughout the year. This counter was installed to replace an old trapping system. The counter and cameras have performed well over the year. The counts for the river are accurate and it is hoped to eliminate all back ground noise on the weir to allow the collection of accurate data for the smaller sea trout entering the system over the coming seasons. The number of fish entering this fishery has been extremely low in recent years as it was very badly affected by the sea trout collapse in the late 1990's and has never recovered.

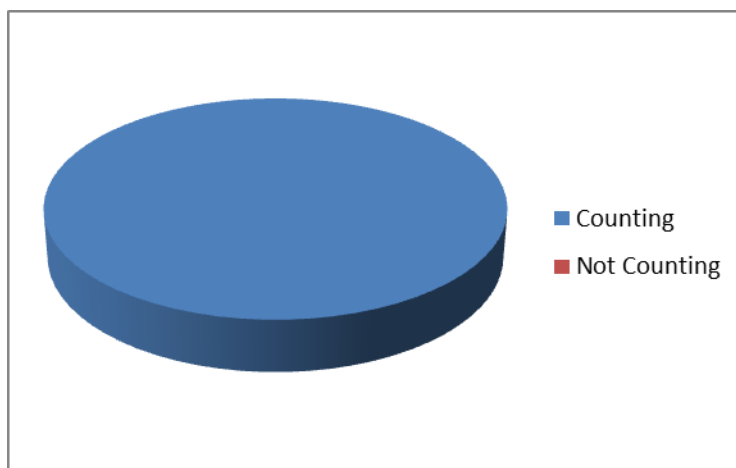
**Table 33: Counter data for the Invermore River**

Fish Species	Number
Spring salmon	0
Grilse	11
Late Summer Salmon	3
Sea Trout	52



**Table 34: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



# 18 Owengowla River



Type : Vaki/ Logie

Operating: Jan - Dec 2017

Performance: Good

Verified: Yes

## 18.1 River site and description

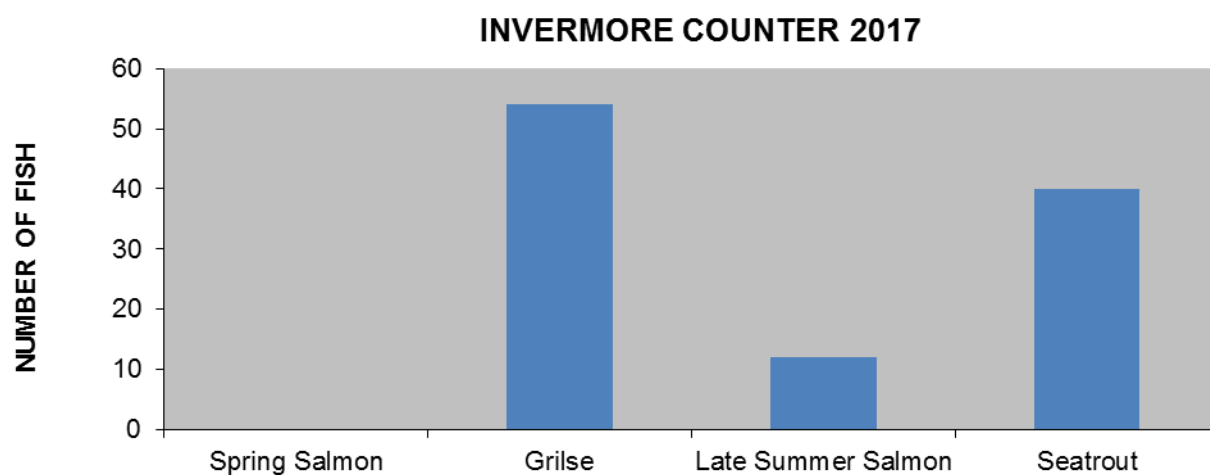
The Gowla counter is located at the old trapping facility 100m above the intertidal zone. This counting facility was completed in 2013. The site consists of a two channel weir which is set up to count sea trout. The counter was installed to replace a partial counter and trapping facility.

## 18.2 Operation

The Vaki on this site was removed to facilitate the installation of a crump weir and Logie counter. The site provides a total count for salmon and sea trout for the river. The site has provided accurate counts for 2017 with no breakdowns or loss of data. Camera data for the river suggest a small run of very large salmon run this system every year. The run of sea trout recorded is lower than expected due to the wet summer where smaller sea trout are not detected in higher water levels.

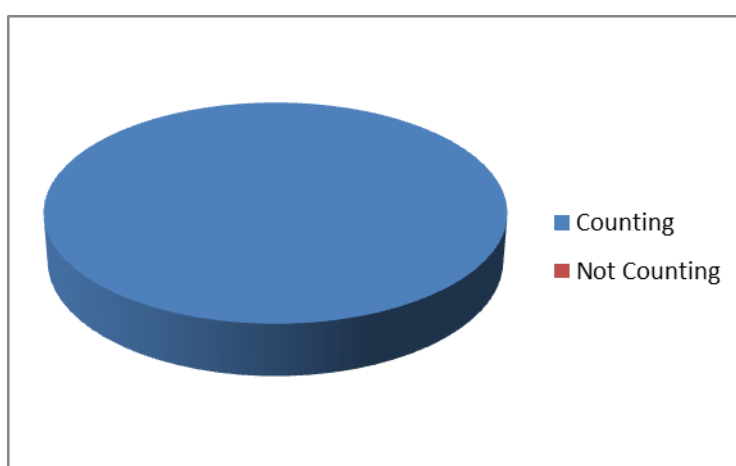
**Table 35: Counter data for the Owengowla River**

Fish Species	Number
Spring salmon	0
Grilse	54
Late Summer Salmon	12
Sea Trout	40



**Table 36: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0





# 19 Inagh River



Type : Logie

Operating: Jan – Dec 2017

Performance: V.Good

Verified: Yes

## 19.1 River site and description

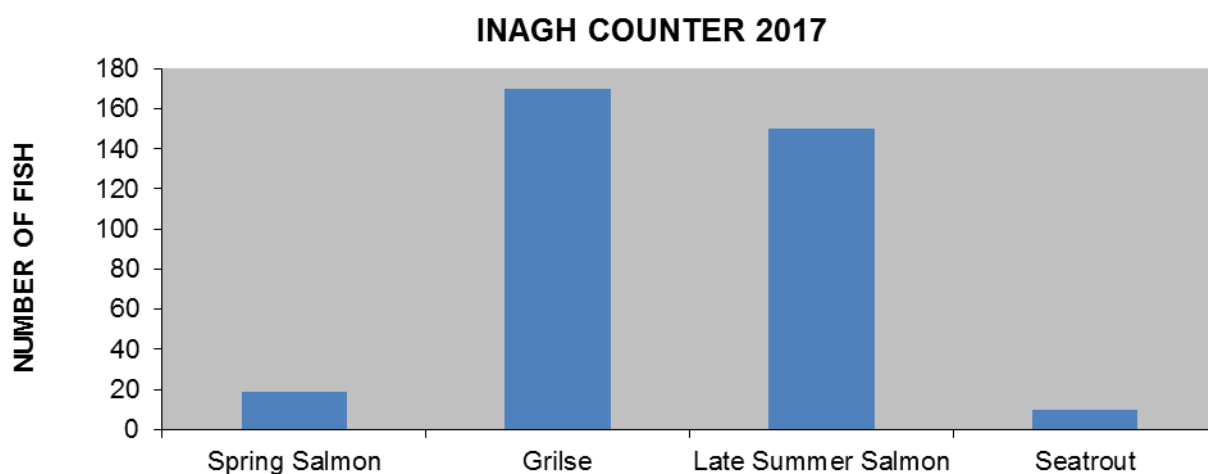
The Inagh counter is located on the Inagh River 40 m above Derryclare Lake. It is the location of the first Logie counter in the country which was installed in the late 1980's. The structure is a purpose built crump weir with one counting channel to facilitate a Logie counter. The counts are verified by CCTV. The fishing rights are privately owned by a syndicate and managed by Lough Inagh Lodge Hotel.

## 19.2 Operation

The counter worked well throughout 2017. The moderate water all summer allowed for accurate verification of the counts for salmon. The counters counts salmon accurately but sea trout can use an alternative channel which is not counted. The computer operating the counters was repaired and reconfigured on a number of occasions to ensure verification was possible on the full data set. All data has been verified.

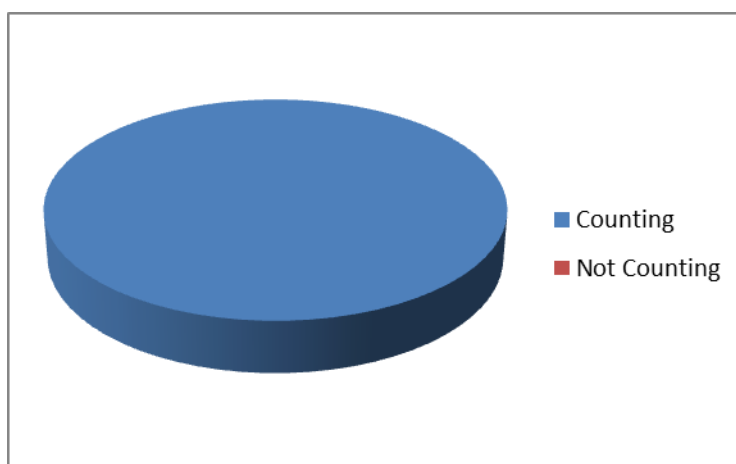
**Table 37: Counter data for the Inagh River**

Fish Species	Number
Spring salmon	19
Grilse	170
Late Summer Salmon	150
Sea Trout	10



**Table 38: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



## 20 Owenglin (Clifden River) River



Counter type: Vaki

Operating: Jan – Dec 2017

Performance: V. Good

Verified: Yes

### 20.1 River site and description

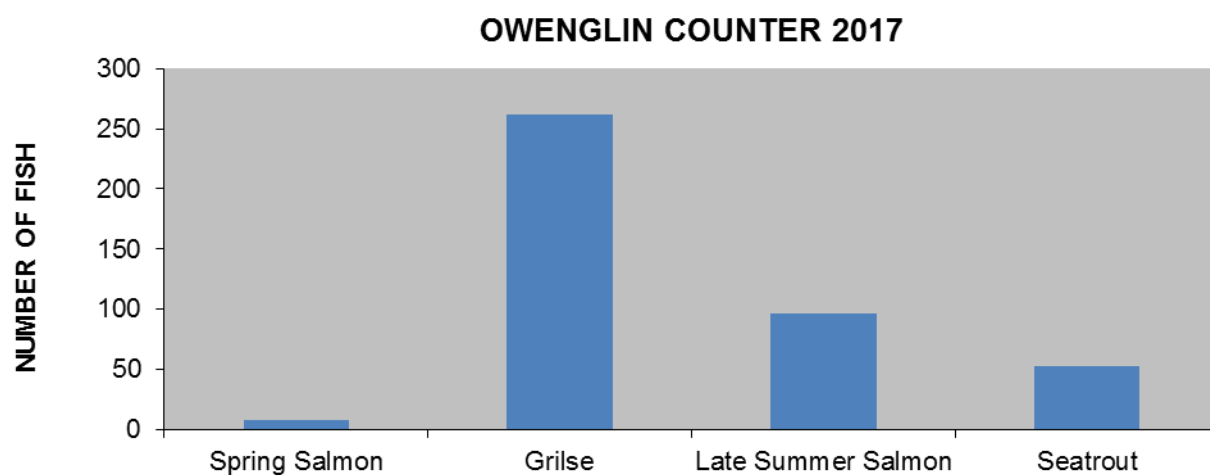
The site of the counter in the Owenglin River is located in the existing fish pass just upstream of the estuary. The Vaki counter and camera are particularly suited to this type of site. The counter and camera are housed in a stainless steel purpose-built frame which allows the counter to activate the camera and provide video and infrared silhouette images of the fish. The fishing rights to the Owenglin River are privately owned by the Clifden Angling Club. The catchment includes numerous small lakes.

### 20.2 Operation

The counter operated very well throughout 2017 with no loss of data. The counter was visited twice weekly in the busy periods and once weekly when the run of fish was low. This counter had no technical difficulties throughout 2017. The salmon and sea trout numbers were down on last year. This facility provides consistent and accurate data each year on the system.

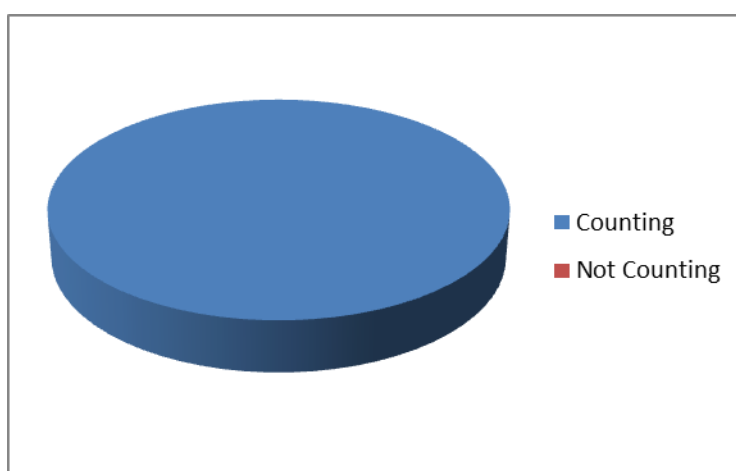
**Table 39: Counter data for the Owenglin River**

Fish Species	Number
Spring salmon	08
Grilse	262
Late Summer Salmon	96
Sea Trout	53



**Table 40: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



## 21 Dawros (Kylemore) River



Counter type: Logie

Operating: Jan – Dec 2017

Performance: V. Good

Verified: Yes

### 21.1 River site and description

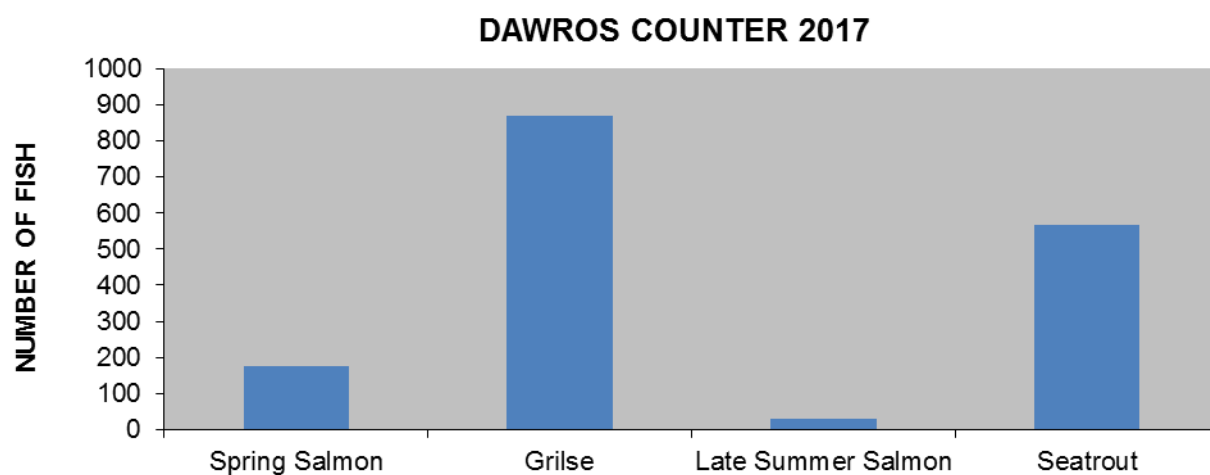
The Dawros is a privately owned river with three groups owning the fishing rights. The river has traditionally enjoyed good salmon and sea trout runs. The system incorporates three lakes (Kylemore Lake, Pollagcapaill, and the Castle Lake) and the Dawros River which enters the sea in Ballinakill Bay.

### 21.2 Operation

The counter operated well during the course of the year. The numbers of fish recorded have all been verified by camera. The figures have proved to be very accurate regardless of the water levels. The counter has two operational crumps and there is a complete set of data for the year.

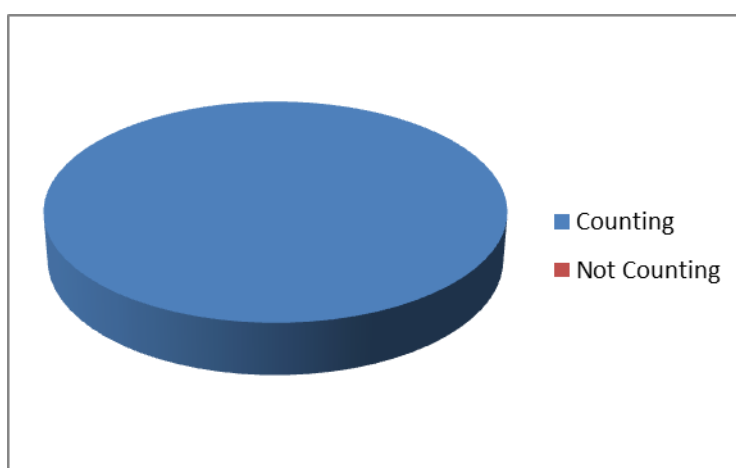
**Table 41: Counter data for the Dawros River**

Fish Species	Number
Spring salmon	176
Grilse	871
Late Summer Salmon	30
Sea Trout	566



**Table 42: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



## 22 Culfin River



Counter Type: Logie

Operating: Jan – Dec 2017

Performance: V. Good

Verified: Yes

### 22.1 River site and description

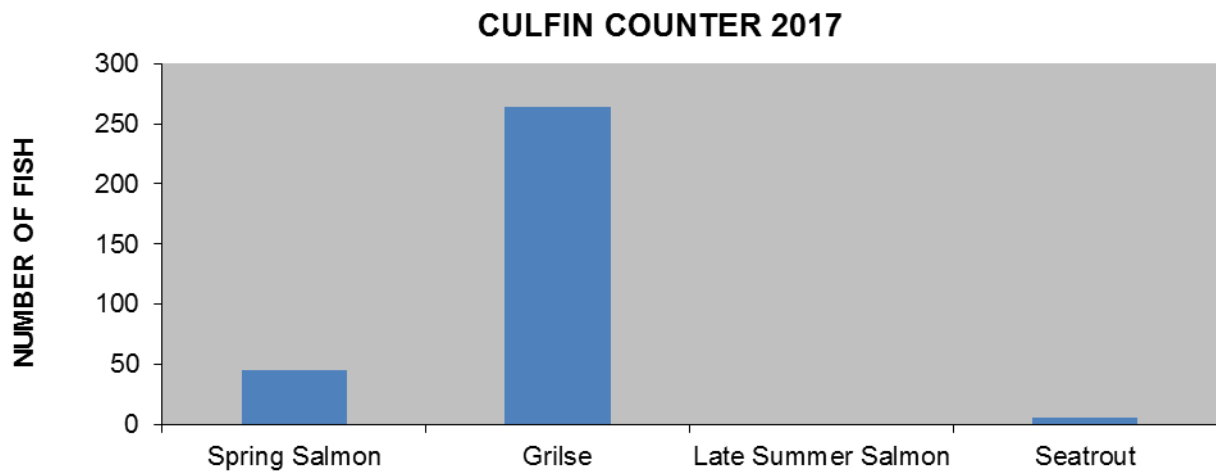
The Culfin counter is located in Lettergesh village down-stream of Lettergesh Bridge. The river is open for angling with a surplus of fish. The structure is a purpose built weir with two counting channels. The counts are verified by CCTV. The fishing rights are privately owned by the Ormsby and Thomson families as well as Kylemore Abbey.

### 22.2 Operation

The counter has not had any problems and worked consistently throughout the year. The counter has been carefully maintained and has produced accurate verifiable figures. The numbers of fish remains constant each year. A small number of lamprey and large eels have been identified crossing the counter each year.

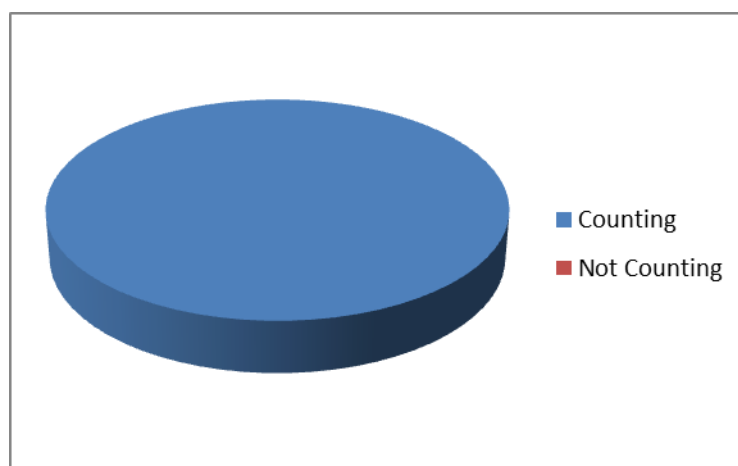
**Table 43: Counter data for the Culfin River**

Fish Species	Number
Spring salmon	45
Grilse	264
Late Summer Salmon	0
Sea Trout	06



**Table 44: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0





## 23 Erriff River



Counter type: Vaki

Operating: Jan- Dec 2017

Performance: V. Good

Verified: Yes

### 23.1 River site and description

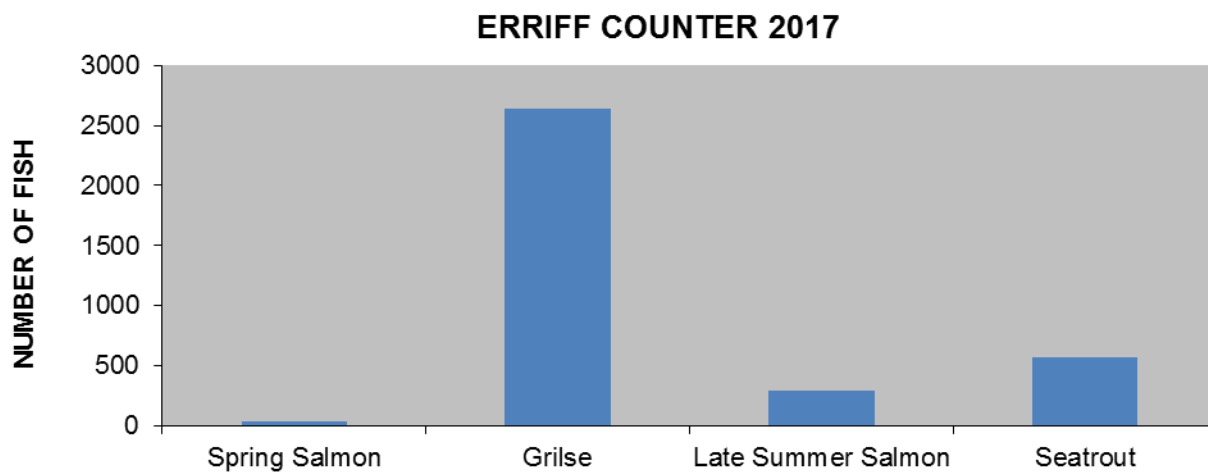
The Erriff River is owned by the state and has been one of the principle salmon and sea trout fisheries in the West of Ireland and is a 'Sea Trout Index River'. IFI operates a Vaki counter on the river. The location of the counter is at the top of the fish pass which allows migrating fish to pass the famous Aasleagh falls.

### 23.2 Operation

The counter was repaired and reinstalled adjacent to the Pit tag reader. The data was collected by the counter and verified by trap data. This unique setup allows IFI to assess the efficiency of the Vaki as a counter and operated adjacent to the pit tag reader. The run of salmon was a return to normal after one of the worst years in the history of the fishery in 2016. The number of sea trout has decreased dramatically on last year as expected. The data is a net figure for wild fish into the system as tagged ranched salmon are removed from the system at the trap and are not allowed to access the river to spawn. Pink salmon and farmed salmon were also removed from the river below the falls in 2017.

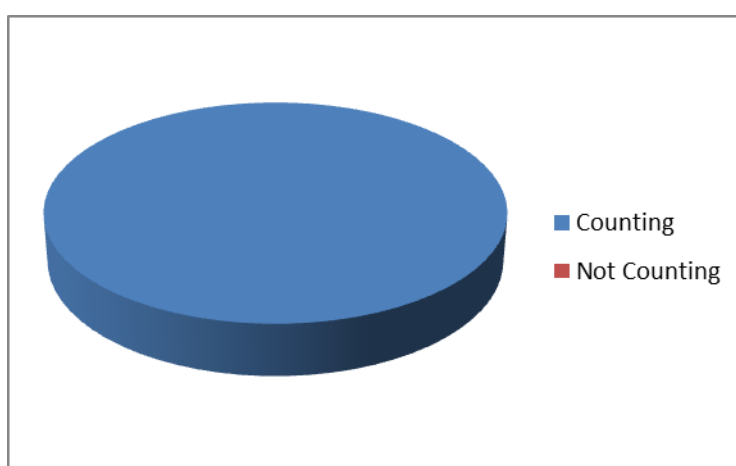
**Table 45: Counter data for the Erriff River**

Fish Species	Number
Spring salmon	34
Grilse	2636
Late Summer Salmon	289
Sea Trout	574



**Table 46: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



## 24 Bunowen River



Counter type: Logie

Operating: Jan-Dec 2017

Performance: V. Good

Verified: Yes

### 24.1 River site and description

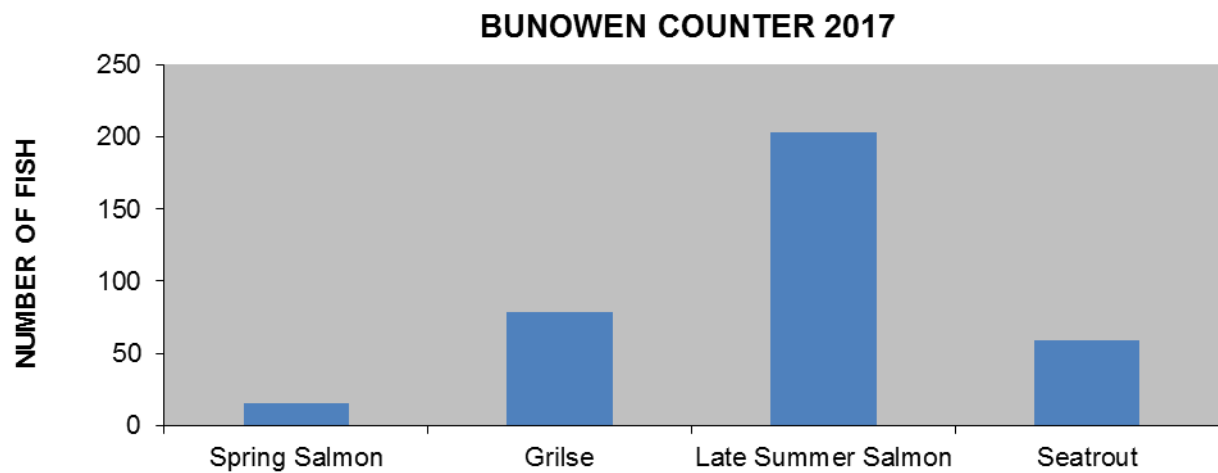
The Bunowen River is partially owned by the state and managed by Inland Fisheries Ireland. There is a small section of the river that is privately owned. The river is 10 kilometres in length and drains an area of 75km squared which includes three lakes. The counter is located beside the IFI store at Ballyhip, Louisburgh, Co. Mayo.

### 24.2 Operation

The counter has performed well over the year and continues to provide an accurate total count for the river. The computer was replaced in early summer to ensure the data was verified on this site. The location of the counter is well upstream of the confluence with the sea. The counter usually records a late run of fish – this is not due to fish entering the river late in the season but is due to fish resting in the deep pools in the lower section of the river over the summer and only ascending the river to spawn in November and December.

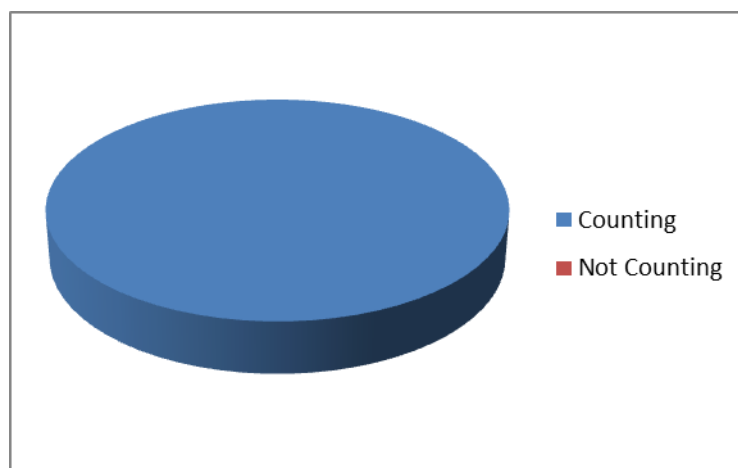
**Table 47: Counter data for the Bunowen River**

Fish Species	Number
Spring salmon	15
Grilse	79
Late Summer Salmon	203
Sea Trout	59



**Table 48: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



## 25 River Moy Counters



Counter type: Logie and one Vaki

Operating: Jan – Sept 2017

Performance: V. Good

Verified: No

### 25.1 River site and description

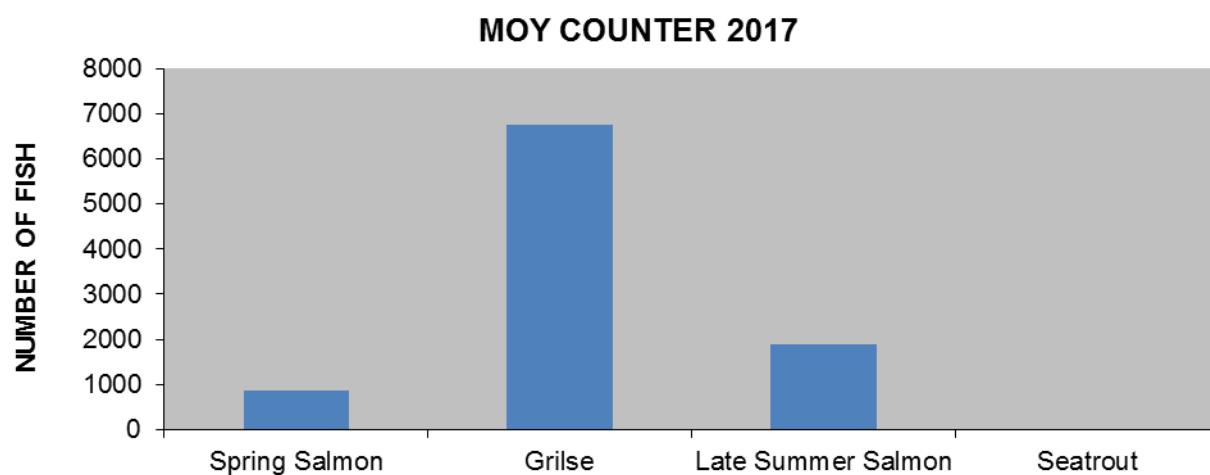
The completion of the refurbishment works on the Ballina Salmon Weir allowed for the reintroduction of the counters on the Moy River. Following an upgrade in 2014 there are now two Logie counter crumps and two Vaki counters which were installed in May of 2012. The counters are located on the site of the refurbished weir. The four counters provide a partial count for the river.

### 25.2 Operation

The counting section of the Moy was two Logie crumps and two Vaki channels. The counters worked well over the summer period to capture the main run of fish. The most significant numbers of fish travelling upstream do so through the 'Queen's gap' without being counted. The counts from year to year depend on water level and can vary significantly; the facility only provides a partial count. Counting in the winter months is limited due to the risk of leaving the gates closed and the resulting flood risk to the town. A funding application for a new Vaki to replace the older model was successful and will be installed in 2018.

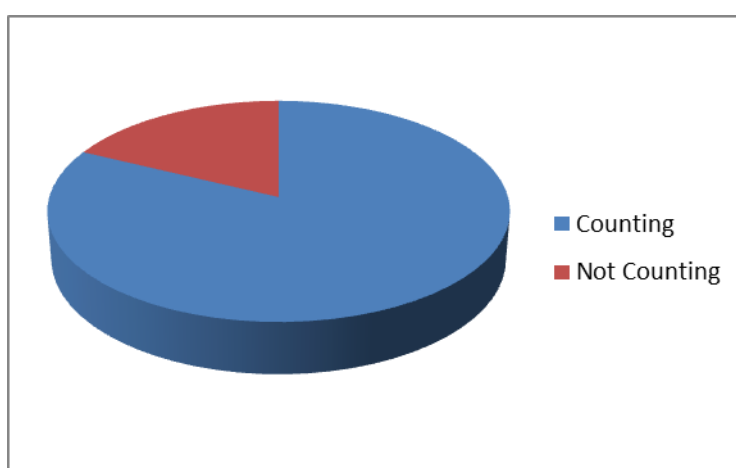
**Table 49: Counter data for the Moy River**

Fish Species	Number
Spring salmon	857
Grilse	6757
Late Summer Salmon	1880
Sea Trout	0



**Table 50: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
300	65



## 26 Eske River



Counter type: Logie

Operating: Jan- Dec 2017

Performance: V Good

Verified: Yes

### 26.1 River Site and Description

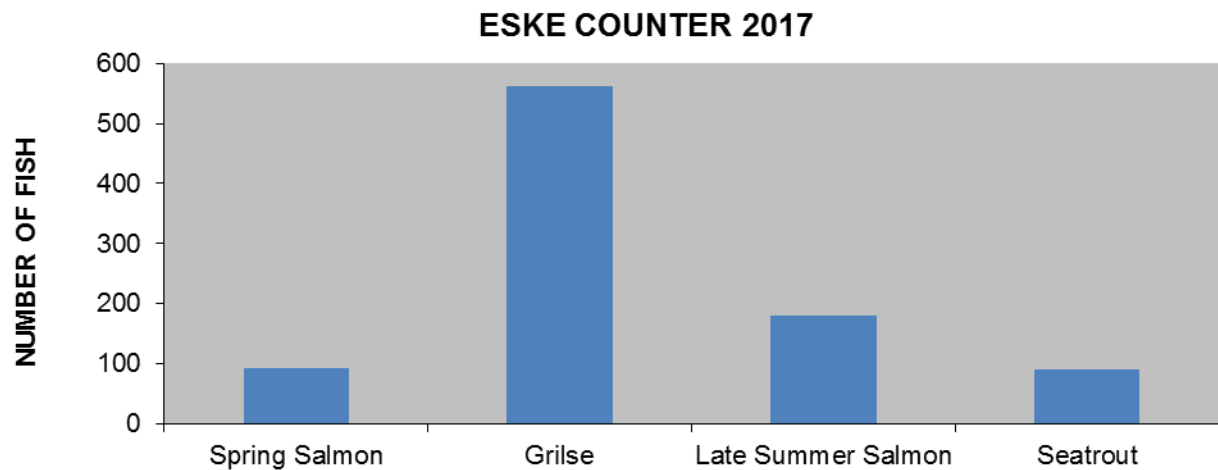
The Eske fishery consists of the 5km River Eske, the 900 acre Lough Eske and its tributaries. The fishery has a run of spring salmon, a good run of grilse and late salmon. The counter at this installation is a resistivity (Logie) counter.

### 26.2 Operation

The counter worked well all year and a full count for the year on all 3 channels was obtained. There were fewer power cuts this year and the U.P.S. coped with all of these since they were of short duration. The counter was downloaded and all data was verified on a weekly basis giving accurate counts for the river. Two new cameras and cables were installed in 2017 and the connections to the weir upgraded.

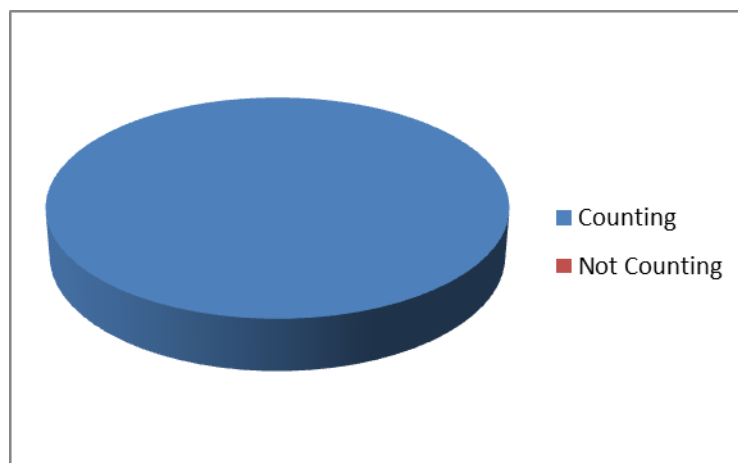
**Table 51: Counter data for the Eske River**

Fish Species	Number
Spring salmon	93
Grilse	562
Late Summer Salmon	181
Sea Trout	90



**Table 52: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0





## 27 Eany River



Counter type: Logie

Operating: Jan- Dec 2017

Performance: V Good

Verified: Yes

### 27.1 River site and description

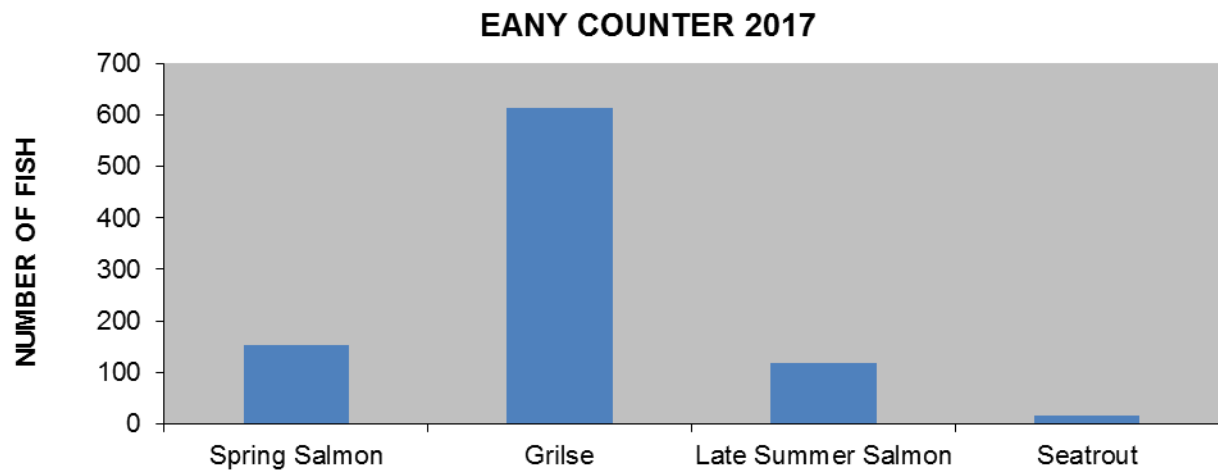
The Eany water fishery is a spate river and forms part of the 125sq km Eany catchment area comprising the Eany water, the lower reaches of the Eanymore and the lower reaches of the Eanybeg. The fish counter is located in the lower section of the river just above the tidal area. The fishery has a small run of spring fish but is noted for its mid-summer runs of grilse, late runs of summer salmon and for sea-trout.

### 27.2 Operation

The Logie counter worked well resulting in a comprehensive count for the year for the river. A small number of maintenance issues were sorted out promptly and this ensured a continuous accurate count. All of the data collected by the counter has been verified by CCTV cameras.

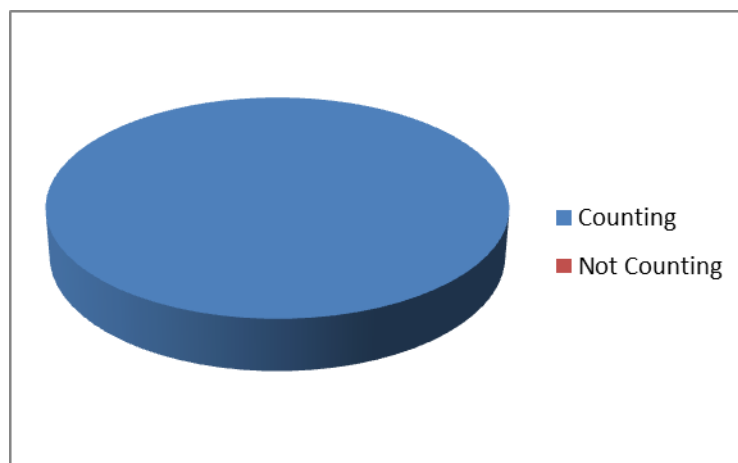
**Table 53: Counter data for the Eany River**

Fish Species	Number
Spring salmon	154
Grilse	613
Late Summer Salmon	119
Sea Trout	16



**Table 54: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
365	0



## 28 Lackagh River



Counter type: Logie

Operating: Apr–Dec 2017

Performance: Excellent

Verified: Yes

### 28.1 River site and description

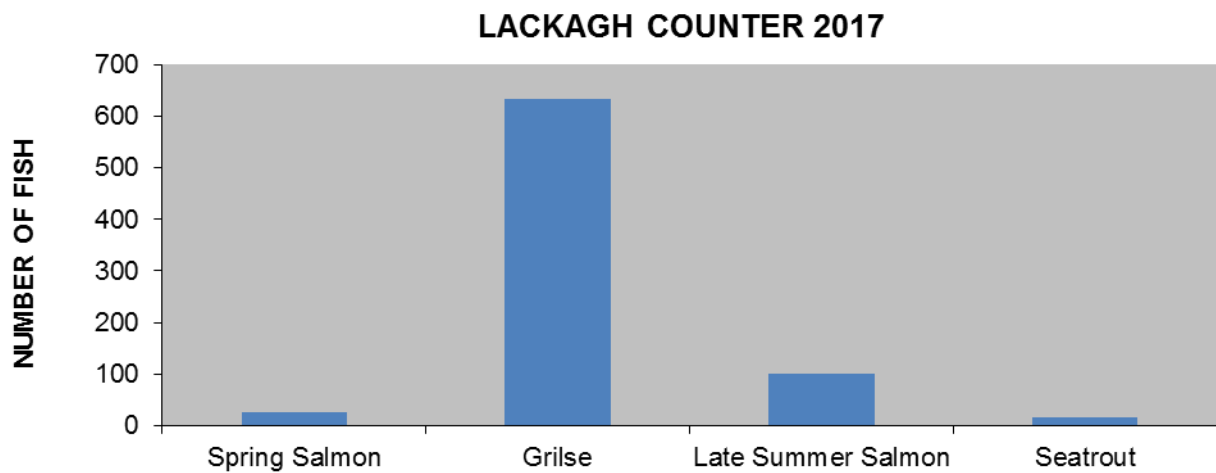
The Lackagh fishery is situated partially within Glenveagh National Park and within an S.A.C. This fishery is one of the few recognised multi sea winter salmon fisheries in the North West. This fishery is currently below its conservation limit. A new counter was built and commissioned early in 2017. The counter is a three channel resistivity counter with verification cameras on all three crumps. The counter has been engineered with a walkway to allow for easy access for maintenance and repairs.

### 28.2 Operation

The counter was funded by the “Salmon Conservation Fund” and is operated by IFI staff. The counter was commissioned in April and has counted successfully since installation. A new computer has been installed to test new software and hardware for the fish counter programme.

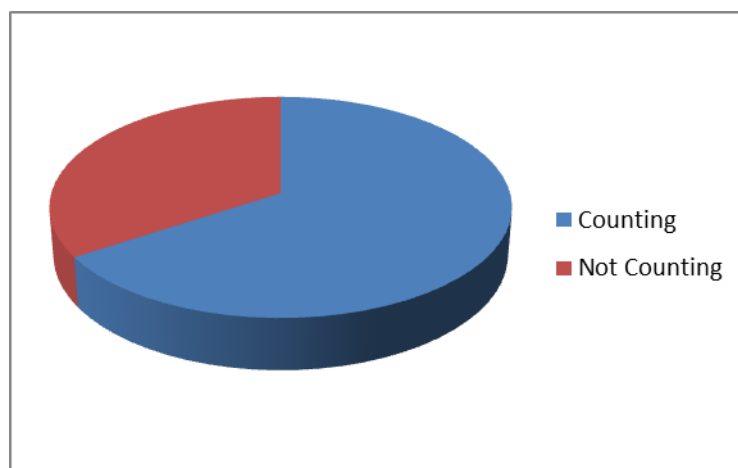
**Table 55: Counter data for the Lackagh River**

Fish Species	Number
Spring salmon	26
Grilse	634
Late Summer Salmon	100
Sea Trout	16



**Table 56: Counter Operations**

Counter Operational (Days)	Counter not operational (Days)
240	125



## Conclusion

The fish counter programme has operated successfully with almost all the counters sites providing accurate verified data for the year. Investment in the fish counter programme continued with replacement and additional CPU's, cameras, cables and accessories. Two additional Vaki counters to upgrade the network have been funded and will be installed in 2018. Unfortunately at the present no new resistivity counters are available to purchase which limits the future development of new sites. IFI have invested in significant spares which will ensure adequate time to future proof the counter programme.

Plans for 2018 include the continued maintenance and upgrade of the existing sites to ensure that they all deliver complete data set. The programme continues to require investment in time and money to ensure it can deliver the verified information required.

## Acknowledgements

The counter programme is managed by numerous fisheries staff throughout the country on a continuous basis and is the single most comprehensive salmon counter programme anywhere in Europe. The compilation of this report would not be possible without the expert work and efforts made by these staff and their regular attention to any issues that arise as well as attending to the verification process which can be tedious and time consuming. The entire programme is managed by Padraic O'Malley, Assistant Inspector, Ballinakill whose expertise, perseverance and diligence is wholeheartedly acknowledged.

Gregory Forde  
Head of Operations  
February 2018