

Agenda item 7.1 For information

### Council

CNL(18)31

Annual Progress Report on Actions Taken Under the Implementation Plan for the Calendar Year 2017

EU - Ireland

#### CNL(18)31

## Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2017

The primary purposes of the Annual Progress Reports are to provide details of:

- any changes to the management regime for salmon and consequent changes to the Implementation Plan;
- actions that have been taken under the Implementation Plan in the previous year;
- significant changes to the status of stocks, and a report on catches; and

**European Union** 

• actions taken in accordance with the provisions of the Convention

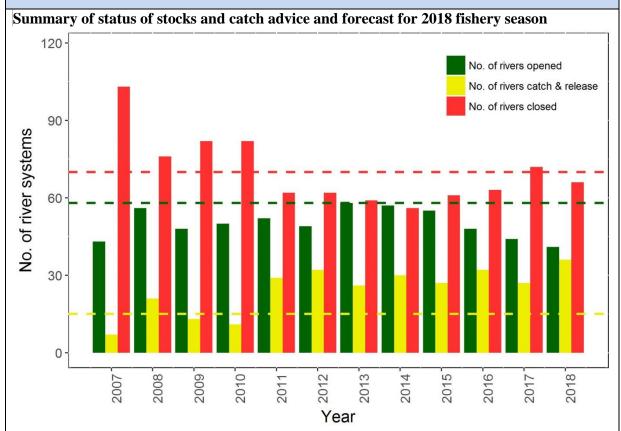
Party:

These reports will be reviewed by the Council. Please complete this form and return it to the Secretariat no later than 29 March 2018.

Jurisdiction/Region:	Ireland
1: Changes to the Imp	olementation Plan
	d revisions to the Implementation Plan posed, the revised Implementation Plans should be submitted to the er).
No changes.	
1.2 Describe any major no management that you	ew initiatives or achievements for salmon conservation and wish to highlight.
No new initiatives	

#### 2: Stock status and catches.

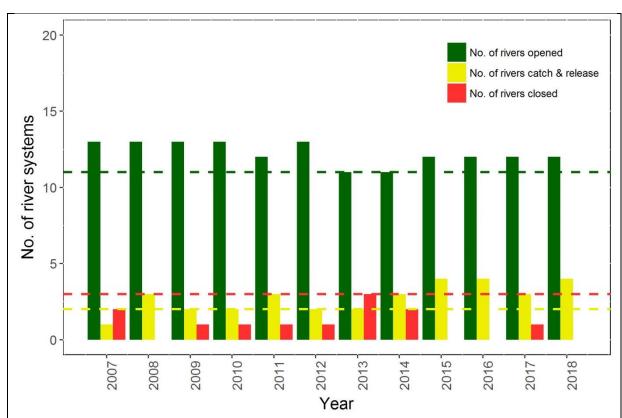
2.1 Provide a description of any new factors which may significantly affect the abundance of salmon stocks and, if there has been any significant change in stock status since the development of the Implementation Plan, provide a brief (200 word max) summary of these changes.



(Dashed lines indicate corresponding baseline stock status reference points as set out in the Implementation Plan)

The stock status and catch advice forecasted for the 2018 fishery is that 41 rivers have an advised harvestable surplus as they are exceeding their conservation limits (CL). A further 36 river systems could open for catch and release-only (C&R) fishing based on exceeding a minimum fry threshold (>15 salmon fry/5 min electro-fishing average) in catchment-wide electrofishing surveys or based on IFI management criteria that they meet 50% or over of their CL but do not exceed their CL. 66 river systems should be closed for fishing as they do not exceed the management target of meeting 50% of CL, electrofishing thresholds have not been met or there is insufficient information for full stock assessment. In comparison to the baseline stock status reference points as set out in the Implementation Plan, this represents a progressive decline in the number of systems open as a harvest fishery, an increase in fisheries open solely for C&R and a marginal decline in closed fisheries.

There are 16 river systems for which a separate assessment is made for multi-sea-winter (MSW) salmon where there are significant fisheries. Of these, 12 have an advised harvestable surplus as they are exceeding their CL. Four of these river systems can open for catch and release-only fishing based on exceeding the minimum fry threshold in catchment-wide electrofishing surveys or based on IFI management criteria that they meet 50% or over of their CL but do not exceed CL.



In addition, there are four assessments on river systems used for hydropower which have been assessed as being below their CL (Upper Liffey (Dublin), Upper Lee (Cork), Upper Shannon (Limerick) and the River Erne).

In applying the scientific advice to management, it should be noted that where rivers are only marginally above their CL they may be restricted to C&R-only fishing so that the actual number of rivers open for harvest under regulation can be less than the number of rivers actually achieving CL.

It should be noted that previous to the 2018 advice, C&R-only fishing was permitted in systems where 65% or over of the CL was met but the CL was not exceed, or a minimum fry threshold (>17 salmon fry/5 minute electro-fishing average) was achieved.

**2.2 Provide the following information on catches:** (nominal catch equals reported quantity of salmon caught and retained in tonnes 'round fresh weight' (i.e. weight of whole, ungutted, unfrozen fish) or 'round fresh weight equivalent').

unifozen fish) of Found fresh weight equivalent).					
(a) provisional nominal	In-river	Estuarine	Coastal	Total	
catch (which may be	54.1	18 t	0	72.1	
subject to revision) for					
2017 (tonnes)					
(b) confirmed nominal	39.4t	18.7t	0	58.1t	
catch of salmon for 2016					
(tonnes)					
(c) estimated unreported			0	7.21t	
catch for 2017 (tonnes)		V - 2			
(d) number and	11,259 (36% of	11,259 (36% of total rod catch)			
percentage of salmon					
caught and released in					
recreational fisheries in					
2017.					

### 3: Implementation Plan Actions.

# 3.1 Provide an update on progress against actions relating to the Management of Salmon Fisheries (Section 2.8 of the Implementation Plan).

**Note:** The reports under 'Progress on Action to Date' should provide a brief overview with a quantitative measure of progress made. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.

Gr	oup.	
Grant Action F1:	Description of Action (as submitted in the IP)  Expected Outcome (as submitted in the IP)  Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	Protection against illegal fishing is a high priority in Ireland and the state invests a considerable amount of resources on these activities (Fishery Inspectors, Navy, Garda etc). More outreach to local communities is planned to bring the problems of poaching as a major impediment to stock recovery into focus.  Buy-in by local communities in identifying active illegal practices.  187,423 fishery staff man hours were spent on protecting Ireland's fishing resource in 2017. 31,501 protection patrols were carried out using different methods on lakes, rivers, estuaries and at sea. This protection was largely related to salmon but fishery patrols were also targeted at other fish species. In total, 264 nets were seized measuring 14,055 metres in length and 128 Fixed Charge Notices were issued for Fishery Offences in 2017. There were 22 prosecutions in 2017.  In February 2017, the Department of Communications, Climate Action and Environment informed Inland Fisheries Ireland (IFI) that it had received legal advice to the effect that IFI did not have explicit power to prosecute offences under the Fisheries Acts. Because of this, summonses for such offences before the Courts were unable to proceed in the interim period until the <i>Inland Fisheries (Amendment)</i>
		Act 2017 was signed into law in July 2017 to resolve this legal discrepancy. Since then, any offences detected during the interim period or thereafter have been able to proceed to prosecution in the normal manner.
	Current Status of Action	Ongoing
	If 'Completed', has the Action achieved its objective?	
Action F2:	Description of Action (as submitted in the IP)	IFI is actively promoting the returns of accurate information from anglers through the national carcass tagging and logbook scheme. This scheme facilitates the identification of inaccurate information and allows some follow-up to redress the issue. Move towards electronic Salmon licences.
	Expected Outcome	More awareness by stakeholders on the need for
	(as submitted in the IP)  Progress on Action to Date (Provide a brief overview with a quantitative measure of	accurate statistics.  Return of catch information from commercial licence holders has been 100% for 2017 and in recent years.  Information on the return of logbooks from recreational

	progress. Other material (e.g. website links) will not be evaluated.)	anglers for calendar year 2017 is not currently available as it is awaiting compilation. However, the return of logbooks by anglers was 68.6% in 2016 and 70.5% in 2015 and is anticipated to be around 70% again in 2017. All anglers who do not return logbooks are written to as a means of improving logbook returns and a proportion are taken to		
		court annually and fined for non-return of logbooks. The electronic licence system is in operation and can be accessed at store.fishinginireland.info.		
	Current Status of Action	Ongoing		
	If 'Completed', has the Action achieved its objective?			
Action F3:	Description of Action (as submitted in the IP)	IFI is developing a National Fish Counter Strategy to maintain, operate and enhance the current counter resources and to evaluate where extra counters might be required. This will be enacted in 2014.		
	Expected Outcome (as submitted in the IP)	A more robust and reliable counter assessment using the most up to date methods for validation of counts (video surveillance, tracking, tagging etc). New database for verification and data capture.		
	Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	A national reporting mechanism for fish counter data and validation has been in place since 2014. This is facilitated through a national fish counter website and database for the input and validation of fish counter data. In total, counts from 30 fish counters were used in the 2017 salmon stock status assessment and associated 2018 stock forecast. In the River Lackagh, a new fish counting facility was completed and commenced operation in summer 2017.		
	Current Status of Action If 'Completed', has the Action achieved its objective?	Ongoing		

# **3.2** Provide an update on progress against actions relating to Habitat Protection and Restoration (Section 3.4 of the Implementation Plan).

**Note:** The reports under 'Progress on Action to Date' should provide a brief overview with a quantitative measure of progress made. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.

U	oup.	
Action	Description of Action	Agricultural enrichment
H1:	(as submitted in the IP)	Following the implementation of the Water Framework
		Directive and the formation of River Basin District
		management structures, a collective approach to
		reducing all adverse impacts including agricultural
		enrichment and eutrophication on aquatic resources is
		now in place. Having characterised the risks posed to
		water-bodies nationally, Programmes of Measures are
		being developed to address habitat impacts / land use
		practices and to restore impaired water bodies to good
		status. The aim of the Water Framework Directive is to
		prevent any deterioration in the existing status of our
		waters, including the protection of good and high status

	where it exists, and to ensure that all waters are restored to at least good status by 2015. As a consequence of the implementation of the WFD and the Nitrates Directive, the impact of agricultural enrichment on salmon rivers is expected to reduce considerably over the coming decades.
	The CAP reform due in 2013 also provides an important opportunity for aligning agriculture objectives with habitat protection.
Expected Outcome (as submitted in the IP)	Significant improvement in water quality due to improved agricultural practice

Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)

Ireland continues to face major challenges to achieve water quality targets set for 2021 and 2027 as required by the WFD. In 2017, the Environmental Protection Agency (EPA) published the most recent official report *Water* Quality in Ireland 2010 –2015 on national water quality. The results found that overall, surface water quality remained relatively unchanged since 2007–2009 and water quality improvements, as planned for under the first river basin management cycle, were not achieved. Nationally, 57% of rivers, 46% of lakes, 31% of transitional waters, 79% of coastal waters and 91% of groundwater bodies are achieving either good or high status under the WFD. Elevated nutrient concentrations (nitrogen and phosphorus), largely attributed to diffuse inputs, continue to be the most widespread problem impacting water quality in Ireland.

The second round of WFD River Basin Management Plans (RBMPs) covering the period 2018-2021 were published in December 2016 and underwent public consultation from February to August 2017. Finalisation of the plans is expected shortly in 2018. This includes a re-alignment of the main WFD target which is to ensure that all relevant waters are restored to at least good status. Following reviews of the first round of RBMPs (2010-2015), as reported in last year's APR, the Irish Government established a new structure and assigned responsibility for various tasks in developing and implementing the next cycle of RBMPs. These continue to be in operation and include:

- 1) a Water Policy Advisory Committee (WPAC), responsible for policy, legislation and resourcing;
- 2) the EPA, responsible for technical reporting and implementation; and
- 3) the Local Authorities Water and Communities
  Office (LAWCO). This body is responsible for
  undertaking and enforcing WFD programmes of
  measures, for WFD-related community engagement
  initiatives and associated WFD public consultations.

The third Nitrates Action Programme (NAP) expired at the end of 2017 and a revised NAP is currently being developed with public consultation undertaken in this regard in 2017. The NAP gives effect to the EU Nitrates Directive and is designed to protect surface and ground waters from agricultural pollution and improve water quality. It is anticipated that new regulations giving effect to a revised NAP will be enacted in 2018, once approval is received from the EU Nitrates Management Committee.

Current Status of Action
If Completed, has the Action achieved its objective?

**Ongoing** 

		T
Action	Description of Action	Forestry Related Impacts
H2:	(as submitted in the IP)	Many Irish forests that are now mature, or
		approaching maturity, were planted in landscapes that
		were unsuited to economically viable forest
		production. The increasing recognition of the impacts
		from forestry on water resources has led to the
		development of a Code of Practice for forestry (Forest
		Service, 2000). Generally, forest management is based
		on the Code of Practice, although a new Forestry Bill, which will replace the out of date Forestry Act 1946,
		has been drafted with the opportunity to ensure that
		forestry management is better able to protect sensitive
		habitats.
	Expected Outcome	Improved water quality and protection of habitats
	(as submitted in the IP)	Improved water quanty and protection of nabitats
	Progress on Action to Date	The Forest Service's IFORIS GIS-based management
	(Provide a brief overview with a	system for forestry grants continues to be used to ensure
	quantitative measure of	that planting, felling and road building operations in forests
	progress. Other material (e.g.	are approved only following detailed environmental
	website links) will not be	consultation with a range of public bodies and the general
	evaluated.)	public. There has been general compliance with the forestry
		codes of practice nationally. Many companies are also
		participating in additional independent forest certification schemes (e.g. FSC & PEFC). Many estates are being
		managed with biodiversity as the primary objective, e.g.
		when conifer trees are felled, there is now a greater
		percentage of broadleaved trees being planted in their
		place.
		The Forestry Act was passed into law in October 2014
		(Number 31 of 2014). This confers responsibility on the Minister for Agriculture, Food and the Marine to promote
		and monitor the protection and enhancement of water
		quality in all aspects of forestry, including ensuring that
		forestry operations and forest-based activities regulated
		under this Act are compatible with the requirements of the
		Water Framework Directive.
		V 1 - 2015 G Th. (1
		In late 2015, Coillte (the state-sponsored forestry company) updated their Business Area Unit (BAU) strategic plans for
		their national estate which is comprised of eight forestry
		regions for the period (2016-2020). In addition to setting
		out how Coillte's policies and objectives will be
		implemented within each BAU, these plans re-enforce their
		commitment to sustainability and environmental protection
		including outlining measures to protect water quality
		during forestry management practices. Such measures (as
		in previous policies) include specifying aquatic buffer
		zones to minimise adverse impacts to aquatic species and
		habitats.
		In December 2016, The Forest Service-Department of
		Agriculture, Food and the Marine (DAFM) published the
		1 0 sivere, 2 000 and the frimine (2111 ivi) published the

Action H3:	Current Status of Action If Completed, has the Action achieved its objective?  Description of Action (as submitted in the IP)	document Environmental Requirements for Afforestation, which has updated the mandatory requirements for any new afforestation and consolidates relevant existing environmental guidelines. These include detailing various additional safeguards such as the specification of greater aquatic buffer zone areas and on sustainable pesticide use to better protect vulnerable waters and aquatic species.  Ongoing  Poor water quality from Inadequate Sewage Treatment and Industrial Discharges In Ireland, there has been considerable investment in upgrading of treatment facilities, primarily in larger towns, and this process will continue with the Programme of Measures under the Water Framework Directive. The Department of the Environment have invested many millions of Euro nationally over the recent years in new treatment facilities, and many of the smaller town and village schemes have been upgraded in this process. It is therefore anticipated that the impact on productive capacity of salmon rivers from inadequate sewage treatment will decrease considerably over the coming years with the
		inadequate sewage treatment will decrease considerably over the coming years with the
	Expected Outcome	requirements of the WFD being achieved. Significant upgrading of wastewater treatment plants has occurred in recent years to assist local authorities in complying with the Urban Wastewater Treatment Directive. The EPA regulates major industrial activities through the Integrated Pollution Prevention and Control (IIPC) regulations while the local authorities license small-scale industrial discharges to waters under the Water Pollution Acts. The Work of the EPA in enforcing the regulations and the implementation of the EU Water Framework Directive are likely to ensure that industrial discharges are adequately regulated to prevent impact on rivers nationally.
	Expected Outcome (as submitted in the IP) Progress on Action to Date	Improved waste water treatment targeting upgrading of the most urgent facilities  Irish Water was formed in 2013 as an independent State-
	(Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	owned subsidiary within the Ervia group. It has taken over the water investment programmes of the 34 county and city councils, with the key aim of delivering water and sewerage schemes, and water conservation works aimed at finding additional water supply capacity. In recent years, 86 wastewater projects have been completed in Ireland with 25 such projects currently in progress. Despite this, further sustained investment in wastewater infrastructure continues to be required.

The latest report available on urban wastewater, *Urban Waste Water Treatment in 2015* published by the EPA in 2016, reviewed the performance of over 500 urban wastewater schemes and assessed compliance with the requirements of the EU Urban Waste Water Treatment Directive (UWWTD). The report sets out compliance status and identifies the key national priorities that require resolution which include the following:

- 94% of Ireland's urban wastewater receives secondary treatment.
- 83% of large urban areas complied with the mandatory treatment standards in the UWWTD, increasing from 74% in 2012.
- 45 urban wastewater schemes are linked with river pollution.
- Untreated wastewater is discharged from 43 areas in rivers, estuaries and coastal waters.
- River water quality monitoring stations where *bad* ecological status (i.e. serious pollution) was attributed to urban wastewater discharges have reduced from 9 in 2009 to 1 in 2015.
- By the end of 2015, 212 recurring reportable incidents were recorded at 189 different wastewater works, 87% of which involved breaches of the effluent quality standards set out in EPA licensing authorisations.

The Water Services (Amendment) Act 2012 provides for the introduction of a registration and inspection system for domestic wastewater treatment systems, including septic tanks and similar systems. Owners of domestic wastewater treatment systems are required to register their systems in accordance with these regulations to ensure protection of water quality. The EPA has developed a National Inspection Plan related to this. All areas of the country are liable to inspection but priority is given to areas where water quality is most at risk from pollution from on-site waste water treatment systems. The aim of the plan is to protect water and human health by using a two-strand approach of education and awareness strategies linked with a risk-based inspection process. The latest published quantitative information available (year 2016) indicate that 1,100 inspections were undertaken exceeding the 1,000 annual target set, with 49% of sites failing inspection compared with 45% in 2015. 54% (294) of sites that failed inspection in 2016 were subsequently compliant following remedial works.

In December 2017, the EPA published the third National Inspection Plan for the period 2018 to 2021: Domestic Waste Water Treatment Systems for public consultation. An updated risk-based methodology has been proposed to take account of the additional information gathered during the preparation of the

	Current Status of Action If Completed, has the Action achieved its objective?	River Basin Management Plans 2018 to 2021. It is intended that any shortfall in the number of inspections completed at the end of the 2015 to 2017 reporting period will be carried over and added to the number of inspections to be undertaken by local authorities in 2018.  Ongoing
Action H4:	Description of Action (as submitted in the IP)	Salmon Farms in Estuaries Both existing and proposed salmon farms in estuaries may pose a threat to wild salmon populations and a number of publications have raised concerns regarding lice induced mortalities of salmon. In Ireland protocols are in place with regard to permitted sea lice thresholds on salmon farms and measures can be taken for farms in breach of protocols. In 2011, this led to stringent action taken by the Irish authorities in removing farmed salmon from an area. The challenge for management is to develop strategies including effective lice treatments to ensure low lice levels on farmed salmon in spring prior to and during wild salmon migration. In fact the thresholds are treatment triggers and when they are reached a treatment must be carried out to reduce lice infestation levels. This is clearly set out in protocols.  Annual fallowing of sites, use of single generation sites, avoidance of partial lice treatments and harvesting carried out remote from grower sites are planned to reduce the potential impact of sea lice infestation. Availability of new sea lice treatments are also being pursued to increase effectiveness of sea lice
	Expected Outcome (as submitted in the IP)  Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	Improved compliance with sea lice protocols and lower sea lice levels in spring  This strategy has led to stringent action by the Irish authorities in enforcing treatment trigger levels which include accelerated harvests and early fallowing of sites.  A detailed investigation was conducted by the EU Commission into complaints that stocks in a number of rivers in the west of Ireland designated as special areas of conservation for Atlantic salmon were under threat - they closed this case in 2014 stating that no evidence was provided to show that particular SACs designated for wild Atlantic salmon do not meet their conservation objectives and that this failure could be attributed to aquaculture and sea lice infestation.

Current Status of Action	Ongoing
If Completed, has the Action	
achieved its objective?	

### 3.3 Provide an update on progress against actions relating to Aquaculture, Introductions and Transfers and Transgenics (Section 4.8 of the Implementation Plan).

**Note:** The reports under 'Progress on Action to Date' should provide a brief overview with a quantitative measure of progress made. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.

Action	
A1:	

Description of Action (as submitted in the IP)

#### **Escapes of farmed fish**

The industry comply with the codes of practice regarding husbandry and good engineering practices.

In the event of an escape, the farm operator will make an emergency application to the Department of Agriculture for a special licence under Section 14 of the Fisheries Act 1959 to deploy nets to recapture the escaped fish. Inland Fisheries Ireland may take such action as it considers necessary to recapture stock which has escaped from a facility operated under a licence. Under 77(2), the Minister (DCENR), may authorise a licensee or other person or body to take such action as is specified in the authorisation to recapture stock which has escaped from a facility.

Expected Outcome (as submitted in the IP)

Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)

Prevention of escapes generally. In the event of escapes, prompt recapture of a significant proportion of the stock.

In the recent FP7 project *Prevent Escape*, a pan-European review of farm escape events was carried out. This shows that where both mandatory reporting, and sound regulation & licensing of aquaculture structures are implemented the incidence of escapes is lower. Reductions in the levels of escapes were recorded in Norway following on the introduction of equipment standards. The same study showed that the level of escapes in Ireland is low in comparison to the other countries assessed (Jackson et al., 2015). In 2016, there were only two fish identified as escapees during scanning for coded wire tags in catches (3937 examined) from 11 locations while no escapees were reported from broodstock recovery in programmes (2959 examined) for seven rivers. This is consistent with most years and indicates a very low incidence of escapees. However not all rivers have scanning programmes for escapee salmon.

In April 2016 the DAFM brought in a *Protocol for Structural Design of Marine Finfish Farms* to standardise an improved structural design process for marine finfish farm installations in Ireland to apply to all new or renewal licence applications.

No reports of salmon escapees were received in 2013 or 2015. However, following severe weather conditions in the south of Ireland in early 2014, cages containing approximately 250,000 salmon were damaged. The fate of all these fish is unknown but a large proportion may have

		died due to crushing in the net and therefore the number of fish at liberty could not be assessed. However, subsequent scanning of catches and broodstocks in some southern areas of Ireland during the following summer and autumn did not identify farmed fish. A single fish farm escapee incident was reported in 2016 where 3,500 fish of approximately 3kg average weight escaped in February in the west of Ireland. In 2017, one report was received of a total of 20,000 fish escaping in a single incident, which was caused by a slider weight ripping the net wall during net changing under strong tidal conditions.
		In August 2017, anglers reporting catching suspected escaped farmed salmon in the west of Ireland. Further fish were reported from rivers in this region in September. In total, scales from 34 of these suspected farmed salmon were made available for analysis out of a total of 66 reported being captured by angling. Seven fish specimens were made available for examination. All seven fish exhibited a combination of morphological features characteristic of farmed salmon enabling these fish to be distinguished as of farmed origin. Examination of scales available from 34 salmon confirmed these fish exhibited scale patterns identifiable as salmon of farmed origin which were clearly distinguishable from wild salmon. Genetic stock identification confirmed that the salmon samples provided were of Norwegian genetic ancestry and were not from any Irish wild populations or from any Irish salmon ranching or mitigation strains.
	Current Status of Action	Ongoing On mitigation strains.
	If Completed, has the Action achieved its objective?	
Action A2:	Description of Action (as submitted in the IP)	Sea lice Infestation  During the spring period Sea lice protocols are in place which set out ovigerous lice thresholds (0.3-0.5 ovigerous lice per fish March –May and 2.0 ovigerous lice per fish outside this period). When the threshold is breached a notice to treat is issued to the salmon farm to bring lice levels under control.  In 2008, a new pest Management Strategy was developed that introduced detailed fallowing requirements and a new approach to monitoring to deal with situations where target lice levels were not being achieved. This approach will identify 'breakout' site options for sites with persistent sea lice problems.  While some farms do exceed these thresholds annually, in spring 2012, non-compliance with lice thresholds at two salmon farms resulted in the Minister giving an order to harvest fish early, prior to wild smolt migration.
	Expected Outcome	Reduced sea lice levels on farmed salmon

	(as submitted in the IP)	
	Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	The continuous on-farm sea lice level monitoring has facilitated early intervention which has resulted in better sea lice control generally. Notably, the Single Bay Management platform has helped to coordinate efforts to reduce lice levels among sites within bays.  The use of alternative approaches, particularly cleaner fish, to complement husbandry and medicinal treatments, coupled with rigorous pro-active regulatory oversight, has meant that sea lice levels in Ireland during 2016 have generally been managed well.
		In 2016 all of the 115 sea lice inspections carried out on smolts were below the Treatment Trigger Levels (TTL); this compares with 97% in 2015 and 94% in 2014. On one-sea-winter salmon 84% of the 91 sea lice inspections were below TTL in 2016 compared to 78% in 2015 and 71% in 2014.
		Reference: O'Donohoe, P., Kane, F., Kelly, S., McDermott, T., D'Arcy, J., Casserly, J., Nixon, P. & Jackson, D. (2017). National Survey of Sea lice ( <i>Lepeophtheirus salmonis</i> Krøyer and <i>Caligus elongatus</i> Nordmann) on Fish Farms in Ireland in 2016. Irish Fisheries Bulletins Number 47, Marine Institute.
		No information on <i>Progress on Action to Date</i> for the year 2017 is available at the time of submission. The <i>National Survey of Sea Lice on Fish Farms</i> report annually published by the relevant competent State authority, the Marine Institute, is currently in preparation in this regard.
	Current Status of Action	Ongoing
	If Completed, has the Action achieved its objective?	
Action A3:	Description of Action (as submitted in the IP)	Transfer and increases in incidence of diseases Early harvesting of farmed salmon where gill damage has been recorded is effective in preventing further outbreaks. See section 4.7 – improved treatments and investment in R&D will result in greater control of gill related disorders in 2013.
	Expected Outcome	Reduced incidence of disease outbreaks in aquaculture
	(as submitted in the IP)  Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	facilities.  All aquaculture operators in Ireland comply with Council Directive 2006/88/EC on animal health requirements for aquaculture animals and products thereof, and on the prevention and control of certain diseases in aquatic animals. Under this legislation, each farm is required to put in place appropriate biosecurity measures to prevent disease incursion and disease spread. They are also required to investigate all
	,	appropriate biosecurity measures to prevent disease incursion

	the Competent Authority where the presence of a listed disease is suspected or confirmed. Compliance with this legislation is assessed during an annual audit carried out by the official services. In addition to these mandatory measures, all farms in Ireland voluntarily comply with a <i>Fish Health Code of Practice</i> and the <i>Farmed Salmonid Health Handbook</i> , in order to minimise and control the number outbreaks of non-listed diseases on Irish farms.
	There were no outbreaks of listed diseases in Ireland in 2017. All salmon farms were inspected under Council Directive 2006/88/EC and only minor non-compliances were observed. A combination of good biosecurity measures, vaccination, early veterinary intervention and expedient treatments, ensured that outbreaks of non-listed diseases were kept to a minimum during 2017. Prolonged low levels of mortalities due to cardiomyopathy syndrome occurred on one Atlantic salmon site. At least three sites reported mortalities due to jellyfish blooms in September/October.
Current Status of Action	Ongoing
If Completed, has the Action	
achieved its objective?	

### 4: Additional information required under the Convention

4.1 Details of any laws, regulations and programmes that have been adopted or repealed since the last notification.

As reported under Action F1, in February 2017, the Department of Communications, Climate Action and Environment informed Inland Fisheries Ireland (IFI) that it had received legal advice to the effect that IFI did not have explicit power to prosecute offences under the Fisheries Acts. Because of this, summonses for such offences before the Courts were unable to proceed in the interim period until the *Inland Fisheries* (*Amendment*) *Act 2017* was signed into law in July 2017 to resolve this legal discrepancy. Since then, any offences detected during the interim period or thereafter have been able to proceed to prosecution in the normal manner.

- 4.2 Details of any new commitments concerning the adoption or maintenance in force for specified periods of time of conservation, restoration and other management measures.
- 4.3 Details of any new actions to prohibit fishing for salmon beyond 12 nautical miles.
- 4.4 Details of any new actions to invite the attention of States not Party to the Convention to matters relating to the activities of its vessels which could adversely affect salmon stocks subject to the Convention.
- 4.5 Details of any actions taken to implement regulatory measures under Article 13 of the Convention including imposition of adequate penalties for violations.