



**IP(20)04**

***NASCO Implementation Plan for the period 2019-2024***

***EU – Spain (Gipuzkoa)***



## IP(20)04

### *NASCO Implementation Plan for the period 2019 – 2024*

*The main purpose of this Implementation Plan is to demonstrate what actions are being taken by the Parties / jurisdictions to implement NASCO's Resolutions, Agreements and Guidelines.*

*In completing this Implementation Plan please refer to the **Guidelines for the Preparation and Evaluation of NASCO Implementation Plans and for Reporting on Progress**, CNL(18)49.*

*Questions in the Implementation Plan are drawn from the following documents:*

- *NASCO Guidelines for Management of Salmon Fisheries, CNL(09)43 (referred to as the 'Fisheries Guidelines');*
- *Report of the Working Group on Stock Classification, CNL(16)11;*
- *Minimum Standard for Catch Statistics, CNL(93)51 (referred to as the 'Minimum Standard');*
- *Revised matrix for the application of the six tenets for effective management of an Atlantic salmon fishery, WGCST(16)16<sup>1</sup>;*
- *NASCO Plan of Action for the Application of the Precautionary Approach to the Protection and Restoration of Atlantic Salmon Habitat, CNL(01)51;*
- *NASCO Guidelines for Protection, Restoration and Enhancement of Atlantic Salmon Habitat, CNL(10)51 (referred to as the 'Habitat Guidelines');*
- *Williamsburg Resolution, CNL(06)48;*
- *Guidance on Best Management Practices to address impacts of sea lice and escaped farmed salmon on wild salmon stocks (SLG(09)5) (referred to as the 'BMP Guidance');*
- *Guidelines for Incorporating Social and Economic Factors in Decisions under the Precautionary Approach (CNL(04)57); and*
- *Road Map' to enhance information exchange and co-operation on monitoring, research and measures to prevent the spread of G. salaris and eradicate it if introduced', NEA(18)08.*

<b>Party:</b>	<b>European Union</b>
<b>Jurisdiction / Region:</b>	<b>Spain (Gipuzkoa)</b>

<sup>1</sup> This document can be obtained from the NASCO Secretariat; email [hq@nasco.int](mailto:hq@nasco.int)

## 1. Introduction

### 1.1 What are the objectives for the management of wild salmon? (Max 200 words)

The main objective is to carry on with the Atlantic salmon reintroduction and restoration plan, initiated at the 80's of the past century by the Provincial Government of Gipuzkoa (Diputación Foral de Gipuzkoa/Gipuzkoako Foru Aldundia), responsible for the entire plan and its monitoring. Salmon populations went to extinction in the XIX and XX centuries in 5 river basins due to dam construction and industrial development (paper and iron factories mainly). The main objectives are:

- (1) Restoration of self-sustaining wild populations of salmon in rivers of Gipuzkoa
- (2) Management and monitoring actions to control salmon populations and improve their, distribution, abundance, status and riverine habitat quality and accessibility.
- (3) Maintain the prohibition of salmon recreational fishery in Gipuzkoa.

### 1.2 What reference points (e.g. conservation limits, management targets or other measures of abundance) are used to assess the status of stocks? (Max 200 words) (Reference: Sections 2.4 and 2.5 of the Fisheries Guidelines)

Reference points have not been set for any salmon river in Gipuzkoa. The following parameters are monitored in Gipuzkoa river basins:

- (1) Adult salmon run size (Urumea and Oria river basins)
- (2) Age structure (Urumea and Oria river basins)
- (3) Partial sex ratio (Urumea and Oria river basins)
- (4) Smolt escapement (Urumea river basins)
- (5) Recruitment/electrofishing (Urumea, Oria and Oiartzun river basins)
- (6) Effective length of river habitat-accessibility (all rivers)

General Conservations Limits will be established for the three Conservation Statuses (Favourable, Unfavourable, and Critical) for the adult salmon run size as follows: Favourable status >700 salmon< Unfavourable status <150 salmon> Critical status.

### 1.3 What is the current status of stocks under the new classification system outlined in CNL(16)11?

Stock Classification Score	Salmon Classification Category	No. rivers
0	Not at Risk	
1	Low Risk	
2	Moderate Risk	
3	High Risk	3
N/A	Artificially Sustained	
N/A	Lost	2
N/A	Unknown	

Additional comments:

- **3 salmon populations** (Urumea, Oria and Oiartzun river basins) classified as High Risk belong to rivers in which the natural stock of salmon is known to have been lost in the past and now have natural recolonization supported by restoration and stocking efforts:
- **Urumea river basin:** The mean size of adult salmon run for the 2013-2018 period (204 salmon) for the Urumea river is 29% of the tentative Conservation Limit (700), therefore the Conservation Limit Attainment Score is 3 (High Risk). The Impact Assessment Score is considered 2 (Moderately impacted). As a result, the stock is considered to be in High Risk.
- **Oria river basin:** The mean size of adult salmon run for the 2013-2018 period (63 salmon) for the Oria river is 9% of the tentative Conservation Limit (700), therefore the Conservation Limit Attainment Score is 3 (High Risk). The Impact Assessment Score is considered 2 (Moderately impacted). As a result, the stock is considered to be in High Risk.
- **Oiartzun river basin:** Unknown adult run but the small size of the recently colonized river basin (86 km<sup>2</sup>) and recruitment (electrofishing data) show High Risk status for this population.
- **Salmon population lost in Deba (in 1870) and Urola river basins (in 1938).**

**1.4 How is stock diversity (e.g. genetics, age composition, run-timing, etc.) taken into account in the management of salmon stocks? (Max 200 words)**

Features of the stock diversity are included in the monitoring tasks, in order to use them in the assessment of the conservation status and adapt the salmon stock management accordingly.

**1.5 To provide a baseline for future comparison, what is the current and potential quantity of salmon habitat? (Max 200 words)**  
(Reference: Section 3.1 of the Habitat Guidelines)

These are the current and potential salmon habitat (length in kilometres) and relative values (%) for current habitat in 5 rivers of Gipuzkoa:

River basin	Total (km)			Main river course (km)			Tributaries (km)		
	Potential	Current	%	Potential	Current	%	Potential	Current	%
Oria	327	74	23	65	20	31	262	54	21
Urumea	112	27	25	41	17	42	70	10	14
Oiartzun	43	30	70	20	19	96	23	10	46
Urola	146	7	5	60	7	12	86	0	0
Deba	208	42	20	60	23	37	148	19	13
<b>Total</b>	<b>835</b>	<b>181</b>	<b>22</b>	<b>247</b>	<b>87</b>	<b>35</b>	<b>588</b>	<b>94</b>	<b>16</b>

- The current habitat for salmon in Gipuzkoa (5 river basins) is 181 km long, the 22% of the potential habitat (835 km).
- Potential habitat is restricted due to the presence of many obstacles, however around 96 permeabilization actions have been performed since 2002, 53 of them were dam demolition and habitat accessibility for salmon has improved in last years. For example: Oiartzun main river course is now accessible for salmon up to 96% of its length. The Leitzaran river, main tributary of Oria river basin, has recently been permeabilized for salmon up to 29 km long (LIFE IREKIBAI project and other previous projects).

**1.6 What is the current extent of freshwater and marine salmonid aquaculture?**

Number of marine farms	None
Marine production (tonnes)	-

Number of freshwater facilities	There is a hatchery owned by the Provincial Government of Gipuzkoa (Irun fish farm) and used exclusively for salmon and three-spined stickleback conservation and reintroduction purposes.
Freshwater production (tonnes)	The production of salmon in Irun fish farm varies among years, with a mean production of 53.000 eggs and 36.000 yearlings/year for the last 10 years period (2010-2019).

Append one or more maps showing the location of aquaculture facilities and aquaculture free zones in rivers and the sea.

Irun fish farm (owned by the Provincial Government of Gipuzkoa) is located at UTM X: 599.446 and UTM Y: 4.797.013 (Datum: ETRS89). It is shown in the following map:



**1.7 Please describe the process used to consult NGOs and other stakeholders and industries in the development of this Implementation Plan. (Max 200 words)**

Any consulting process has been carried out in the development of this Implementation Plan. It has been developed only by the Provincial Government of Gipuzkoa.

2.	<b>Management of Salmon Fisheries:</b>
<i>In this section please review the management approach to each of the fisheries in your jurisdiction (i.e. commercial, recreational and other fisheries) in line with the relevant NASCO Resolutions, Agreements and Guidelines. For Parties / jurisdictions that prosecute mixed-stock fisheries, there should at least one action related to their management.</i>	
2.1	<b>What are the objectives for the management of the fisheries for wild salmon?</b> (Max. 200 words)
Salmon fishery (recreational or professional) is not allowed in Gipuzkoa.	
2.2	<b>What is the decision-making process for the management of salmon fisheries, including predetermined decisions taken under different stock conditions (e.g. the stock levels at which regulations are triggered)?</b> (Max. 200 words) <i>(This can be answered by providing a flow diagram if this is available.)</i> <i>(Reference: Sections 2.1 and 2.7 of the Fisheries Guidelines)</i>
Not applicable because salmon fisheries are not allowed in Gipuzkoa	
2.3	<b>(a) Are any fisheries permitted to operate on salmon stocks that are below their reference point (e.g. Conservation Limits)? If so, (b) how many such fisheries are there and (c) what approach is taken to managing them that still promotes stock rebuilding?</b> (Max 200 words) <i>(Reference: Section 2.7 of the Fisheries Guidelines)</i>
(a) Not applicable – see 2.1	
(b) Not applicable – see 2.1	
(c) Not applicable – see 2.1	
2.4	<b>(a) Are there any mixed-stock salmon fisheries? If so (b) how are these defined, (c) what was the mean catch in these fisheries in the last five years and (d) how are they managed to ensure that all the contributing stocks are meeting their conservation objectives?</b> (Max. 300 words in total) <i>(Reference: Section 2.8 of the Fisheries Guidelines)</i>
(a) Not applicable – see 2.1	
(b) Not applicable – see 2.1	
(c) Not applicable – see 2.1	
(d) Not applicable – see 2.1	
2.5	<b>How are socio-economic factors taken into account in making decisions on management of salmon fisheries?</b> (Max. 200 words) <i>(Reference: Section 2.9 of the Fisheries Guidelines)</i>

Not applicable – see 2.1	
<b>2.6 What is the current level of unreported catch and what measures are being taken to reduce this?</b> (Max. 200 words) (Reference: Section 2.2 of the Fisheries Guidelines and the Minimum Standard)	
Unknown, but it is believed to be negligible or non-existent.	
<b>2.7 Has an assessment under the Six Tenets for Effective Management of an Atlantic Salmon Fishery been conducted? If so, (a) has the assessment been made available to the Secretariat and (b) what actions are planned to improve the monitoring and control of the fishery? (c) If the six tenets have not been applied, what is the timescale for doing so?</b> (Max. 200 words) (Reference: Six Tenets for Effective Management of an Atlantic Salmon Fishery, WGCST(16)16)	
(a) Not applicable – see 2.1	
(b) Not applicable – see 2.1	
(c) Not applicable – see 2.1	
<b>2.8 Identify the threats to wild salmon and challenges for management associated with their exploitation in fisheries, including bycatch of salmon in fisheries targeting other species.</b>	
Threat / challenge F1	Annual monitoring of the species.
Threat / challenge F2	Control of recreational fisheries (brown trout and other riverine species) to detect possible salmon bycatch
Threat / challenge F3	Increase the knowledge about the angling activity
Threat / challenge F4	

Copy and paste lines to add further challenges which should be labelled F5, F6, etc.



<b>2.9 What SMART actions are planned during the period covered by this Implementation Plan (2019 – 2024) to address each of the threats and challenges identified in section 2.8 to implement NASCO’s Resolutions, Agreements and Guidelines and demonstrate progress towards achievement of its goals and objectives for the management of salmon fisheries?</b>		
<b>Action F1:</b>	Description of action:	Annual monitoring of the species, based on: (1) Collection of number, biometric and biological data of every salmon captured on recreational fishery targeting other species (bycatch). (2) Collection of number, biometric and biological data of every spawner salmon controlled at salmon traps in Urumea and Oria rivers. (3) Electrofishing surveys on juvenile production areas. (4) Smolt monitoring in the Urumea river (screwtrap), collection of number, biometric and biological data of every smolt controlled at the screwtrap. (5) Annual estimation of the conservation status of the salmon stock.
	Planned timescale (include milestones where appropriate):	Annually.
	Expected outcome:	Data for stock trend analysis and evaluation.
	Approach for monitoring effectiveness & enforcement:	The corresponding reports, published every year.
	Funding secured for both action and monitoring programme?	Expected
<b>Action F2:</b>	Description of action:	Control of recreational fishery (bycatch)
	Planned timescale (include milestones where appropriate):	Annually
	Expected outcome:	Annually estimate of the total salmon bycatch of recreational fishery
	Approach for monitoring effectiveness & enforcement:	Every year, the salmon fishery prohibition is published in the fishing regulations of Gipuzkoa.
	Funding secured for both action and monitoring programme?	Yes
<b>Action F3:</b>	Description of action:	Increase the knowledge about the angling activity

	Planned timescale (include milestones where appropriate):	2021
	Expected outcome:	Number of fishmongers in each river section, fishing pressure distribution among river basins and stretches.
	Approach for monitoring effectiveness & enforcement:	Fishing regulation publication and new informatic tool or software for registration. Fishing pressure indicators.
	Funding secured for both action and monitoring programme?	Expected
<b>Action F4:</b>	Description of action:	
	Planned timescale (include milestones where appropriate):	
	Expected outcome:	
	Approach for monitoring effectiveness & enforcement:	
	Funding secured for both action and monitoring programme?	Choose an item.

*Copy and paste lines to add further actions which should be labelled F5, F6, etc.*

<p><b>3. Protection and Restoration of Salmon Habitat:</b>  <i>In this section please review the management approach to the protection and restoration of habitat in your jurisdiction in line with the relevant NASCO Resolutions, Agreements and Guidelines.</i></p>	
<p><b>3.1 How are risks to productive capacity identified and options for restoring degraded or lost salmon habitat prioritised, taking into account the principle of ‘no net loss’ and the need for inventories to provide baseline data? (Max. 200 words)</b>  <i>(Reference: Section 3 of the Habitat Guidelines)</i></p>	
<ul style="list-style-type: none"> <li>- There is a Master Plan ongoing for rivers permeabilization in Gipuzkoa which is updated periodically. Salmon and other diadromous species drive the efforts and prioritization of actions for river permeabilization. Around 96 permeabilization actions have been performed since 2002, 53 of them were dam demolition and habitat accessibility for salmon has improved among last years. The accessibility map is redrawn periodically in order to estimate the progress in river connectivity and identify forthcoming actions to be taken.</li> <li>- Some salmonid rivers stretches have been restored in Urumea and Oria river basins to improve habitat complexity and diversity through LWD structures (wooden structures) input in the river channel.</li> </ul>	
<p><b>3.2 How are socio-economic factors taken into account in making decisions on salmon habitat management? (Max. 200 words)</b>  <i>(Reference: Section 3.9 of the Habitat Guidelines)</i></p>	
<p>Every action for salmon habitat restoration and protection action is consulted with the corresponding local stakeholders and their opinion evaluated for the analysis of alternatives.</p>	
<p><b>3.3 What management measures are planned to protect wild Atlantic salmon and its habitats from (a) climate change and (b) invasive aquatic species? (Max. 200 words each)</b>  <i>(Reference: Section 3.2 of the Habitat Guidelines)</i></p>	
<p>(a) There is a Master Plan ongoing for rivers permeabilization in Gipuzkoa which will serve to protect salmon habitats from climate change, mainly in cases where obstacles are demolished and river flow diversion avoided. Some salmonid rivers stretches have been restored in Urumea and Oria river basins to improve habitat complexity and diversity through LWD structures (wooden structures) input in the river channel (LIFE IREKIBAI).</p>	
<p>(b) The only invasive species identified that could threaten salmon at the moment is the American mink (<i>Neovison vison</i>). Although the impact of this species on salmon populations is believed to be negligible, the Provincial Government of Gipuzkoa set up in 2014 a programme to eradicate the species, which is still ongoing (LIFE LUTREOLA).</p>	
<p><b>3.4 Identify the main threats to wild salmon and challenges for management in relation to estuarine and freshwater habitat.</b></p>	
Threat / challenge H1	Connectivity and habitat restoration.
Threat /	Protection of summer holding pools, spawning grounds, and juvenile rearing areas

challenge H2	from civil works or other anthropic impacts.
Threat / challenge H3	
Threat / challenge H4	

Copy and paste lines to add further threats/challenges which should be labelled H5, H6, etc.

<b>3.5 What SMART actions are planned during the period covered by this Implementation Plan (2019 – 2024) to address each of the threats and challenges identified in section 3.4 to implement NASCO’s Resolutions, Agreements and Guidelines and demonstrate progress towards achievement of its goals and objectives for the Protection, Restoration and Enhancement of Atlantic Salmon Habitat?</b>		
<b>Action H1:</b>	Description of action:	(1) Evaluation of the permeability of 8 obstacles or fish-ways carried out (LIFE IREKIBAI) (2) Evaluation of permeability of V-flat gauging stations during 2019-2020 (3) Permeabilization of 48 obstacles in Gipuzkoa rivers to improve longitudinal connectivity in the frame of the Gipuzkoan rivers permeabilization Master Plan.
	Planned timescale (include milestones where appropriate):	2019-2024
	Expected outcome:	Report and GIS database
	Approach for monitoring effectiveness & enforcement:	Annual population monitoring to detect abundance, distribution trends and colonized areas.
	Funding secured for both action and monitoring programme?	Expected
<b>Action H2:</b>	Description of action:	Update of the salmonid mesohabitat maps.
	Planned timescale (include milestones where appropriate):	2021
	Expected outcome:	An updated GIS database and maps. This information will be used to report the impact assessment of any construction that could affect the important salmonid mesohabitats identified
	Approach for monitoring effectiveness & enforcement:	The corresponding report and GIS database

	Funding secured for both action and monitoring programme?	Expected
<b>Action H3:</b>	Description of action:	
	Planned timescale (include milestones where appropriate):	
	Expected outcome:	
	Approach for monitoring effectiveness & enforcement:	
	Funding secured for both action and monitoring programme?	Choose an item.
<b>Action H4:</b>	Description of action:	
	Planned timescale (include milestones where appropriate):	
	Expected outcome:	
	Approach for monitoring effectiveness & enforcement:	
	Funding secured for both action and monitoring programme?	Choose an item.

*Copy and paste lines to add further actions which should be labelled H5, H6, etc*

#### **4. Management of Aquaculture, Introductions and Transfers, and Transgenics:**

*Council has requested that for Parties / jurisdictions with salmon farms, there should be a greater focus on actions to minimise impacts of salmon farming on wild salmonid stocks. Each Party / jurisdiction with salmon farming should therefore include at least one action relating to sea lice management and at least one action relating to containment, providing quantitative data in Annual Progress Reports to demonstrate progress towards the international goals agreed by NASCO and the International Salmon Farmers Association (ISFA):*

- *100% of farms to have effective sea lice management such that there is no increase in sea lice loads or lice-induced mortality of wild salmonids attributable to the farms;*
- *100% farmed fish to be retained in all production facilities.*

*In this section please provide information on all types of aquaculture, introductions and transfers, and transgenics (including freshwater hatcheries, smolt-rearing etc.*

**4.1 (a) Is the current policy concerning the protection of wild salmonids consistent with the international goals on sea lice and containment agreed by NASCO and ISFA? (b) If the current policy is not consistent with these international goals, when will current policy be adapted to ensure consistency with the international goals and what management measures are planned to ensure achievement of these goals and in what timescale? (Max. 200 words for each) (Reference: BMP Guidance)**

(a) Yes

(b) Not applicable

**4.2 (a) What quantifiable progress can be demonstrated towards the achievement of the international goals for 100% of farms to have effective sea lice management such that there is no increase in sea lice loads, or lice-induced mortality of wild salmonids attributable to sea lice? (b) How is this progress monitored, including monitoring of wild fish? (c) If progress cannot be demonstrated, what additional measures are proposed and in what timescale? (Max. 200 words each)**

*(Reference: BMP Guidance)*

*The measures by which these goals may be achieved, and against which the Review Group will be measuring the effectiveness of the Implementation Plan, are set out in the BMP Guidance SLG(09)5 (Best management practice; reporting and tracking; factors facilitating implementation) as agreed by NASCO and ISFA.*

(a) Specific actions have not been adopted as sea-lice has not been reported as a problem in freshwater

(b) The sanitary status of all spawner salmon passing the salmon trap is monitored, but presence of sea lice has never been detected.

(c) Not applicable

4.3	<p><b>(a) What quantifiable progress can be demonstrated towards the achievement of the international goals for achieving 100% containment in all (i) freshwater and (ii) marine aquaculture production facilities? (b) How is this progress monitored, including monitoring of wild fish (genetic introgression) and proportion of escaped farmed salmon in the spawning populations? (c) If progress cannot be demonstrated, what additional measures (e.g. use of sterile salmon in fish farming) are proposed and in what timescale? (Max. 200 words each)</b></p> <p><i>(Reference: BMP Guidance)</i></p> <p><i>The measures by which these goals may be achieved, and against which the Review Group will be measuring the effectiveness of the Implementation Plan, are set out in the BMP Guidance SLG(09)5 (Best management practice; reporting and tracking; factors facilitating implementation) as agreed by NASCO and ISFA.</i></p>
(a)(i)	<p>Sanitary analyses are carried out by the Provincial Government of Gipuzkoa to exclude the presence of any fish farm related diseases in the hatchery</p>
(a)(ii)	<p>There are no marine aquaculture facilities in the River basins of Gipuzkoa</p>
(b)	<p>All salmon reared in the Irun salmon fish farm are used for stocking the Gipuzkoan rivers. Since juveniles are the offspring of wild males and female spawners are captured from the Urumea and Oria rivers, there is no risk of genetic introgression</p>
(c)	<p>Not applicable</p>
4.4	<p><b>What adaptive management and / or scientific research is underway that could facilitate better achievement of NASCO's international goals for sea lice and containment such that the environmental impact on wild salmonids can be minimised? (Max 200 words)</b></p> <p><i>(Reference: BMP Guidance and Article 11 of the Williamsburg Resolution)</i></p>
	<p>There is no specific research underway in Gipuzkoan rivers related to sea lice. However, all adult salmon entering the Urumea and Oria rivers fish traps are monitored for the presence of sea lice.</p>
4.5	<p><b>What is the approach for determining the location of aquaculture facilities in (a) freshwater and (b) marine environments to minimise the risks to wild salmonid stocks? (Max. 200 words for each)</b></p>
(a)	<p>The Irun salmon farm is owned and managed by the Provincial Government of Gipuzkoa. This facility works as a freshwater hatchery, producing salmon yearlings from native wild parental broodstock for supplemental stocking within the Gipuzkoan rivers. Three-spined stickleback is also reared for conservation and reintroduction purposes. As a general rule, the Provincial Government of Gipuzkoa will inform negatively to the installation of new commercial aquaculture facilities for salmon production that could significantly affect wild salmon population or its habitats in Gipuzkoan rivers.</p>
(a)	<p>There is none in Gipuzkoan rivers</p>

<p><b>4.6 What progress has been made to implement NASCO’s guidance on introductions, transfers and stocking?</b> (Max. 200 words) (Reference: Articles 5 and 6 and Annex 4 of the Williamsburg Resolution)</p>	
<p>There is only one aquaculture facility for salmon in Gipuzkoa, which is owned and managed by the Provincial Government of Gipuzkoa. This facility works as a hatchery, producing salmon yearlings from native wild parental broodstock for supplemental stocking within Gipuzkoan river basins. Therefore, the operation of this freshwater aquaculture facility is in accordance with the Williamsburg Resolution.</p>	
<p><b>4.7 Is there (a) a requirement to evaluate thoroughly risks and benefits before undertaking any stocking programme and (b) a presumption against stocking for purely socio-political / economic reasons?</b> (Max. 200 words each) (Reference: Guidelines for incorporating social and economic factors in decisions under the Precautionary Approach and Annex 4 of the Williamsburg Resolution)</p>	
<p>(a) The stocking decision is taken by the Provincial Government of Gipuzkoa exclusively under scientific data evidence, in order to improve salmon populations in Gipuzkoa.</p>	
<p>(b) Stocking is only limited by the production capacity of the fish farm, but there are no socio-political or economic constraints.</p>	
<p><b>4.8 What is the policy / strategy on use of transgenic salmon?</b> (Max. 200 words) (Reference: Article 7 and Annex 5 of the Williamsburg Resolution)</p>	
<p>It is not applicable</p>	
<p><b>4.9 For Members of the North-East Atlantic Commission only: What measures are in place, or are planned, to implement the eleven recommendations contained in the ‘Road Map’ to enhance information exchange and co-operation on monitoring, research and measures to prevent the spread of <i>Gyrodactylus salaris</i> and eradicate it if introduced, including the development and testing of contingency plans?</b> (Max. 200 words) (Reference ‘Road Map’ to enhance information exchange and co-operation on monitoring, research and measures to prevent the spread of <i>G. salaris</i> and eradicate it if introduced, NEA(18)08)</p>	
<p>It is not applicable</p>	
<p><b>4.10 Identify the main threats to wild salmon and challenges for management in relation to aquaculture, introductions and transfers, and transgenics.</b></p>	
Threat / Challenge A1	Continue supplemental stocking until Favourable Conservation Status is achieved
Threat / challenge A2	
Threat / challenge A3	



Threat / challenge A4	
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Copy and paste lines to add further threats/challenges which should be labelled A5, A6, etc.

**4.11 What SMART actions are planned during the period covered by this Implementation Plan (2019 – 2024) to address each of the threats and challenges identified in section 4.10 to implement NASCO’s Resolutions, Agreements and Guidelines and demonstrate progress towards achievement of its goals and objectives for aquaculture, introductions and transfers, and transgenics?**

<b>Action A1:</b>	Description of action:	Supplemental stocking of Gipuzkoan rivers with salmon yearlings: (1) Selection and transfer of wild spawners from fish traps to the hatchery. (2) Artificial spawning and fry growth in captivity. (3) Tagging (adipose fin clip) and stocking in rivers and tributaries upstream from naturally colonized areas..
	Planned timescale (include milestones where appropriate):	Annually.
	Expected outcome:	Increase of the emigrating smolt population and returning salmon in Gipuzkoan rivers.
	Approach for monitoring effectiveness & enforcement:	Annual monitoring report.
	Funding secured for both action and monitoring programme?	Yes
<b>Action A2:</b>	Description of action:	
	Planned timescale (include milestones where appropriate):	
	Expected outcome:	
	Approach for monitoring effectiveness & enforcement:	
	Funding secured for both action and monitoring programme?	Choose an item.

<b>Action A3:</b>	Description of action:	
	Planned timescale (include milestones where appropriate):	
	Expected outcome:	
	Approach for monitoring effectiveness & enforcement:	
	Funding secured for both action and monitoring programme?	Choose an item.

*Copy and paste lines to add further actions which should be labelled A5, A6, etc*