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## Lake Peipus Perch and Pike-Perch Fishery

### 2<sup>nd</sup> Surveillance Report

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Fishery client	Logi-F
Assessment Type	2 <sup>nd</sup> annual surveillance, February 2020

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## 1 Executive summary

This report comprises the 2<sup>nd</sup> annual surveillance audit of the Lake Peipus Perch and Pike-perch Fishery. The fishery was certified on 13<sup>th</sup> October 2017, covering two units of assessment (UoAs); UoA 1 covers perch (*Perca fluviatilis*) while UoA 2 covers pike-perch (*Sander lucioperca*), with both UoAs including only those fish caught by Estonian fishermen working within Lake Peipus using either gillnets or trapnets.

Eight conditions of certification were set against the fishery at certification; these included four conditions on Principle 1 (focused on the target stocks), three on Principle 2 (focused on environmental impacts) and one on Principle 1 (focused on the management regime).

At the 1<sup>st</sup> annual surveillance audit ([https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@assessment-documentsets?documentset\\_name=Surveillance+report&assessment\\_id=FA-02068&phase\\_name=Ongoing+surveillance&start\\_date=2019-01-22&title=Surveillance+Audit](https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@assessment-documentsets?documentset_name=Surveillance+report&assessment_id=FA-02068&phase_name=Ongoing+surveillance&start_date=2019-01-22&title=Surveillance+Audit)), three of the four Principle 1 conditions were assessed as being 'behind target', together with the three Principle 2 conditions. The remaining two conditions were assessed as being 'on target'.

Also at the 1<sup>st</sup> annual Surveillance Audit, the audit team undertook an initial harmonisation process with the Russian Lake Peipus Fishery (certified 2<sup>nd</sup> April 2019) and the Russian and Estonian Lake Peipus fishery (certified 13<sup>th</sup> January 2020). At that time, it was noted that there were three conditions on the Russian Lake Peipus Fishery concerning black-throated diver (*Gavia arctica*), a bird species which is regarded as being ETP for the Russian fishery because it is included on the Russian Red List, and which is understood to interact occasionally with the Russian fishery. However, black-throated diver is also listed as an Annex I bird species on the EU Birds Directive, and while there was no information presented during the initial assessment to suggest that there are interactions between the Estonian fishery and this species, the harmonisation discussion indicated that it should nevertheless be considered as ETP for Estonian fishery. As such, at the 1<sup>st</sup> annual Surveillance audit PIs 2.3.1-2.3.3 of the Estonian Lake Peipus Fishery were rescored in line with the scoring for the Russian Lake Peipus Fishery, and three new conditions were added (Conditions 9, 10 and 11).

This 2<sup>nd</sup> annual surveillance audit was announced on the MSC website on the 9<sup>th</sup> January 2020, and an on-site audit took place in Tartu, Estonia, from the 12-14<sup>th</sup> February, 2020. The audit was carried out according to the MSC Fisheries Certification Requirements and Guidance version 2.0 (MSC 2014) and using Fisheries Certification Process version 2.1 (MSC 2018).

The primary focus of this 2<sup>nd</sup> annual surveillance audit was progress against conditions. However, the following was also inspected during the audit:

- The scientific base of information and stock assessment;
- Changes to the fishery and its management, e.g. legislation and regulations;
- Changes and updates on ecosystem issues;
- Changes to personnel involved with the science, management and industry;
- Compliance;
- Harmonisation with other MSC certified fisheries; and,
- Any changes that might affect traceability within the fishery and conformity with regulations.

The audit concluded that:

- For Principle 1, the stock of perch in Lake Peipus decreased slightly in 2019. The basis of the stock and catches of perch were from fish of generations 2014-2016 with the dominance of the large generation of 2015, which is characterized by slow growth. The stock of pike-perch in the Lake Peipus increased in 2019. The basis of the commercial part of the population in 2019 was fish of the high-yielding generation of 2016.
- Principle 2, no changes were reported that made a material difference to the certification. It was noted that the 2019-2020 winter was highly unusual in that it was the first year in at least 35 years where the surface remained free of ice for the entire winter.
- Principle 3, no changes were reported that made a material difference to the certification.
- Progress against all conditions is back 'on target' after several new projects were started and initial results of existing projects were presented.

At this 2<sup>nd</sup> annual surveillance audit, it is concluded that the Lake Peipus Perch and Pike-perch Fishery continues to meet MSC requirements and should remain certified.

## 2 Report details

### 2.1 Surveillance information

The following information summarises the basic information on the audit and the audit team.

**Table 1. Surveillance information.**

1	Fishery name	
	Lake Peipus perch and pike-perch	
2	Surveillance level and type	
	Level 6: Default surveillance	
3	Surveillance number	
	1st Surveillance	
	2nd Surveillance	Yes
	3rd Surveillance	
	4th Surveillance	
	Other (expedited etc)	N/A
4	Team leader	
	Dr. Rob Blyth-Skyrme	
	<p>Rob started his career in commercial aquaculture, but subsequently shifted his focus to the sustainable management of wild fisheries. After his PhD he went to the Eastern Sea Fisheries Joint Committee, where he became the Deputy Chief Fishery Officer. He then moved to Natural England, the statutory adviser to UK Government on nature conservation in English waters, to lead the team dealing with fisheries policy, science and nationally significant fisheries and environmental casework. Rob now runs Ichthys Marine Ecological Consulting Ltd., a fisheries and environmental consultancy. As well as carrying out general consultancy, he has undertaken all facets of MSC work as a lead assessor, expert team member and peer reviewer across a wide range of fisheries, including in freshwater. Rob is a member of the MSC's Peer Review College and has completed the MSC v1.3 and v2.0 training modules.</p> <p>Marine Certification LLC confirms that Rob meets the competency criteria for team leaders and has the appropriate skills and experience required to serve as a Principle 2 and 3 assessor. It is also confirmed that Rob has no conflicts of interest in relation to the Lake Peipus fishery.</p>	
5	Team members	
	Dr. Dmitry Sendek	
	<p>Dmitry has worked for 25 years as a professional fishery scientist. Since 2000 he served as a Senior Researcher at the Laboratory of Monitoring of Salmonid Fish Populations, State Research Institute on Lake and River Fisheries (GosNIORKh), St. Petersburg. From 1994 to 2000 he worked as a Researcher at the Laboratory of Fish Genetics, GosNIORKh, St. Petersburg. And from 1991 – 1993 he was employed as a</p>	

	<p>Laboratory Assistant at the Laboratory of Cell Populations, Salmonid Fish Genetics Group. Institute of Cytology, Russian Academy of Sciences, St. Petersburg.</p> <p>Dmitry received PhD in zoology in 2000 from the GosNIORKh, St. Petersburg with a thesis on the “Phylogenetic analysis of Coregonid fishes by means of allozyme electrophoresis method.” His research interests include: Evolution, phylogeography and systematics of coregonids species on the basis of molecular markers analysis; Population genetics of fish species: coregonids, Atlantic salmon, Sea trout, European grayling, Arctic char, European smelt, Sockeye salmon, and Pink salmon; Genetic conservation of coregonids fishes in Eurasia, and investigation of fish fauna of poorly studied water bodies of the Northern Russia.</p> <p>Marine Certification LLC confirms that Dmitry meets the competency criteria for team members and has the appropriate skills and experience required to serve as a Principle 1 assessor. It is also confirmed that Dmitry has no conflicts of interest in relation to the Lake Peipus fishery.</p>
	Ms. Anya Tishchenko (Russian – English translation)
	<p>Anya has worked as a Russian-English technical translator since 2004, initially working for a US company translating technical manuals and training machine operators, as well as participating in commissioning systems in the US and Japan. She now works as a general translator for business, including in translating correspondence and technical reports, and in accompanying customers for translation in meetings. Anya has participated in MSC fishery audits and assessments since 2014; she has worked with Rob and Dmitry on the Lake Peipus Perch and Pike-Perch Fishery since the Year 1 audit.</p>
6	Audit/review time and location
	Rob and Dmitry were on-site for the surveillance audit, with translation provided by Anya, who was acting for the CAB.
	The site visit took place in Tartu, Estonia, from 12 <sup>th</sup> – 14 <sup>th</sup> February 2020, with meetings as indicated in Table 17, in Section 5.3.1.
7	Assessment and review activities
	<p>The key focus for the Year 2 audit was progress against the six conditions that were assessed at the Year 1 audit of being behind progress.</p> <p>Progress against the other five conditions (two set when the fishery was certified, three set at the Year 1 audit when harmonising with the Russian and Estonian Lake Peipus Perch and Pike-Perch Fishery) was also reviewed.</p> <p>Checks were also made for changes in the management system, regulations and personnel, as well as the general performance of the fishery during the 2019 year.</p>

## 2.3 Scope and history of the assessment

The Lake Peipus Perch and Pike-perch Fishery occurs on Lake Peipus, a lake of approximately 3,555 km<sup>2</sup> that is located on the border of the Republic of Estonia and the Russian Federation (Figure 1).



Figure 1. The Lake Peipus basin (Source: Roll et al. 2006)

By surface area, Lake Peipus is the fourth largest European lake. The lake consists of three parts: the largest and deepest northern part is called Lake Peipsi (Chudskoe Ozero in Russian, area = 2,611 km<sup>2</sup>, maximum depth = 12.9 m), the middle strait-like part, called Lake Lämmijärv (Teploe Ozero in Russian, area = 236 km<sup>2</sup>, maximum depth = 15.3 m) and the southern part, called Lake Pihkva (Pskovskoe Ozero; area = 708 km<sup>2</sup>, maximum depth = 5.3 m). Lake Pihkva is predominantly Russian; there is no Estonian fishing activity in this part of Lake Peipus.

The Lake Peipus Perch and Pike-perch Fishery targets European perch (*Perca fluviatilis*) and pike-perch (*Sander lucioperca*) in Estonian waters of Lake Peipus; both target species are predatory percids that are native to Lake Peipus and the surrounding region. The fishery is divided into two Units of Assessment (UoAs), with the gillnet and trapnet fisheries for perch comprising UoA 1, and the gillnet and trapnet fisheries for pike-perch comprising UoA 2.

The original assessment of the fishery commenced in September 2016, and the fishery was certified on 13<sup>th</sup> October 2017. The full assessment report and the Year 1 audit for the fishery is available on the MSC website, here: <https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@view>. This new report comprises the Year 2 Annual Surveillance report for the certified fishery.

## **2.4 Changes to the fishery since the last audit**

### **2.4.1 Changes to the management system**

There have been no significant changes to the fishery management system since the Year 1 audit.

### **2.4.2 Changes to relevant regulations**

There have been no significant changes to relevant regulations since the Year 1 audit.

### **2.4.3 Changes to Personnel involved in science, management or industry**

There have been no significant changes to personnel involved in science, management or industry since the Year 1 audit.

### **2.4.4 Changes to the scientific base of information, including stock assessments**

In accordance with the research program approved at the annual ERFC meetings, the scientific base of information for the Lake Peipus fishery is collected during four fishery surveys annually, each with a different focus (Spring – mainly for vendace, smelt, perch and pike-perch, June – mainly for pike-perch and vendace, August – mainly for bream and roach, and October – mainly for pike-perch, perch and pike).

According to the latest scientific data, in 2019 the stock of perch in Lake Peipus decreased slightly. The basis of stocks and catches of perch in 2020 will be fish of generations 2014-2016 with the dominance of the large generation of 2015, which is characterized by slow growth. The TAC of perch for the Lake Peipus in 2020 was set at 2,520 t with an Estonian share of 1,180 t (ERFC, 2019). Stock status of pike-perch in the Lake Peipus increased in 2019. The basis of the commercial part of the population in 2019 was fish of the high-yielding generation of 2016; these fish will form the basis of the stock of pike-perch in 2020. In autumn of 2019, a high number of pike-perch aged 1+ was observed, mainly in the Russian part of Lake Peipsi. The 2019 year-class of pike-perch was low. The total allowable catch (TAC) for pike-perch in 2020 was set at 1,990 tonnes (t) with an Estonian share of 920 t.

### **2.4.5 Changes and updates on the ecosystem**

No significant changes in the Lake Peipus ecosystem were noted. While an emergency 10 day closure of the trapnet fishery was introduced in August 2018 to avoid excess mortality of fish due to exceptionally warm, low oxygen water being present in the lake, water temperatures in the 2019 summer season were not as high, and so no closure was required.

Several stakeholders highlighted that the 2019-2020 winter was extremely unusual, however, in that Lake Peipus did not freeze (reported by one stakeholder to be the first such instance in at least 35 years). This means that recreational fishing activity (i.e., ice fishing targeting perch) was lower than normal, and allowed for the commercial fishery to commence very quickly with the new quota for the 2020 season. The result is that, as of February 13<sup>th</sup> 2020, the pike-perch quota for the first half of the year under the Estonian Olympic fishery system has already been taken. It was predicted that this would lead to difficulties through the year where fishermen are required to stop fishing to avoid exceeding the quota of another species.

### **2.4.6 Where enhanced fisheries, any updates on fishery's position in relation to scope criteria**

It is confirmed that perch and pike-perch taken in the Lake Peipus fishery are from natural populations that are not subject to enhancement. This situation has not changed since the initial assessment of the fishery.

### **2.4.7 Any developments or changes within the fishery which impact traceability or the ability to segregate between fish from the Unit of Certification (UoC) and fish from outside the UoC (non-certified fish).**

No changes were reported to the Audit Team on the way that the fishery operates that would impact traceability or the ability to segregate between fish from the UoC and fish from outside the UoC.

### **2.4.8 Other changes**

There were no reports or other evidence provided during the surveillance audit to suggest that destructive practices or unilateral exemptions have been introduced within the fishery during the audit period.

## 2.5 Version details

Table 2 shows the MSC fisheries programme documents that were employed in undertaking this surveillance audit.

**Table 2. MSC fisheries programme documents versions**

Document	Version number
MSC Fisheries Certification Process	Version 2.1
MSC Fisheries Standard	Version 2.0
MSC General Certification Requirements	Version 2.3
MSC Surveillance Reporting Template	Version 2.0



### 3 Results

#### 3.1 Surveillance results overview

##### 3.1.1 Total Allowable Catch (TAC) and catch data

The following tables provide the total allowable catch for the UoA and the UoC. Data are presented in detail on the website of the Ministry for Agriculture (<https://www.agri.ee/et/eesmargid-tegevused/kalamajandus-ja-kutseline-kalapuuk/puugiandmed>).

**Table 3. Perch: Total allowable catch (TAC) and catch data for the UoA**

TAC (Estonia + Russia)	Year	2019	Amount	3,211.5 t
UoA share of TAC (Estonia)	Year	2019	Amount	1,561.5 t
UoC share of TAC (Estonia)	Year	2019	Amount	1,561.5 t
Total green weight catch by UoC	Year (most recent)	2019	Amount	0 kg
Total green weight catch by UoC	Year (second most recent)	2018	Amount	1,638 kg

**Table 4. Pike-perch: Total allowable catch (TAC) and catch data for the UoA**

TAC (Estonia + Russia)	Year	2019	Amount	1,530.06 t
UoA share of TAC (Estonia)	Year	2019	Amount	695.06 t
UoC share of TAC (Estonia)	Year	2019	Amount	695.06 t
Total green weight catch by UoC	Year (most recent)	2019	Amount	15,680 kg
Total green weight catch by UoC	Year (second most recent)	2018	Amount	54,923 kg

##### 3.1.2 Summary of conditions

The fishery was certified with eight Conditions, covering Performance Indicators (PIs) in Principles 1, 2 and 3 (Table 5, below, and see Section 3.2 for a detailed description of progress against these conditions).

**Table 5. Summary of conditions**

Condition number	Condition	Performance Indicator (PI)	Status	Original PI score	Revised PI score
1 (UoC 1)	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of SIb is met, specifically through demonstrating the following: SIb: “The HCRs are likely to be robust to the main uncertainties.”	1.2.2 (SIb)	On target	75	N/A
2 (UoC 1)	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement	1.2.4 (SIc)	On target	75	N/A

	of Slc is met, specifically through demonstrating the following: Slc: <i>"The assessment takes uncertainty into account."</i>				
3 (UoC 2)	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Slf is met, specifically through demonstrating the following: Slf: <i>"There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of the target stock and they are implemented as appropriate."</i>	1.2.1 (Slf)	On target	75	N/A
4 (UoC 2)	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Slc is met, specifically through demonstrating the following: Slc: <i>"The assessment takes uncertainty into account."</i>	1.2.4 (Slc)	On target	75	N/A
5 (UoCs 1 & 2)	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Slb and Slc are met, specifically through demonstrating the following: Slb: <i>"There is a strategy in place that is expected to ensure the UoA does not hinder the recovery of ETP species."</i> Slc: <i>"There is an objective basis for confidence that the strategy will work, based on information directly about the fishery and/or the species involved."</i>	2.3.2 (Slb, Slc)	On target	65	N/A
6 (UoCs 1 & 2)	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Sld is met, specifically through demonstrating the following: Sle: <i>"There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and they are implemented as appropriate."</i>	2.3.2 (Sle)	On target	65	N/A
7 (UoCs 1 & 2)	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Sla and Slb are met, specifically through demonstrating the following: Sla: <i>"Some quantitative information is adequate to assess the UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of the ETP species."</i> Slb: <i>"Information is adequate to measure trends and support a strategy to manage impacts on ETP species."</i>	2.3.3 (Sla, Slb)	On target	60	N/A
8 (UoCs 1 & 2)	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Sla is met, specifically through demonstrating the following: Sla: <i>"Clear long-term objectives that guide decision-making, consistent with MSC fisheries standard and the precautionary approach are explicit within management policy."</i>	3.1.3 (Sla)	On target	60	N/A
9	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement	2.3.2 (Slb, Slc)	On target	65	N/A

(UoCs 1 & 2)	of Slb and Slc are met, specifically through demonstrating the following: Slb: <i>"There is a strategy in place that is expected to ensure the UoA does not hinder the recovery of ETP species."</i> Slc: <i>"There is an objective basis for confidence that the strategy will work, based on information directly about the fishery and/or the species involved."</i>				
10 (UoCs 1 & 2)	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Sle is met, specifically through demonstrating the following: Sle: <i>"There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and they are implemented as appropriate."</i>	2.3.2 (Sle)	On target	65	N/A
11 (UoCs 1 & 2)	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Sla and Slb are met, specifically through demonstrating the following: Sla: <i>"Some quantitative information is adequate to assess the UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of the ETP species."</i> Slb: <i>"Information is adequate to measure trends and support a strategy to manage impacts on ETP species."</i>	2.3.3 (Sla, Slb)	On target	60	N/A

### 3.1.3 Recommendations

There were no recommendations set at the time the fishery was certified, and none have been set during the surveillance programme.

### 3.3 Conditions

The following tables provide a detailed update on each of the Conditions set against the fishery. In this case it is noted that Condition 1-8 were set at certification, but Conditions 9-11 were set at the year 1 audit as a result of harmonising with the Russian and Estonian Lake Peipus Perch and Pike-Perch Fishery (see details of the fishery on this MSC webpage: <https://fisheries.msc.org/en/fisheries/russian-and-estonian-lake-peipus-perch-and-pike-perch/@@view>).

**Table 6. Condition 1 (UoC 1: Perch)**

Performance Indicator	<b>1.2.2</b> <b>Slb: The HCRs are likely to be robust to the main uncertainties.</b>
Score	75
Justification	<p>The management system accounts for some uncertainty when setting HCRs. For example, managers estimate the magnitude of mortality from recreational and IUU fishing, and include the estimates in the stock assessment and in the process of allocating the TAC and quotas. However there remain some uncertainties about how managers estimate actual values for recreational and IUU fishing, and for the level of mortality associated with discarding, particularly of juvenile perch. Perch is the subject of quite an intensive recreational fishery, and in some years the volume of the recreational fishery can be about half of the commercial fishery, especially if the ice conditions in winter are favourable for amateur fishing (Ortu et al. 2014). Thus, it is not clear that the HCRs are likely to be robust to the main uncertainties (levels of mortality associated with non-commercial fisheries and discarding).</p>
Condition	<p>By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Slb is met, specifically through demonstrating the following:</p> <p>Slb: <i>"The HCRs are likely to be robust to the main uncertainties."</i></p>
Milestones	<p>Please note: Milestones here are similar or the same as those for Condition 2.</p> <p><u>Year 1:</u></p> <ul style="list-style-type: none"> <li>Design a scientifically valid approach to determine the sources and amounts of perch mortality associated with recreational and IUU fishing in Lake Peipus (including of juvenile by-catch and discarding) that will aid in meeting the SG80 requirement for this Sl.</li> <li>Provide a description of the plan to the Audit Team.</li> <li>Resulting score = 75.</li> </ul> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>Implement the plan as designed in Year 1.</li> <li>Update the Audit Team as to progress of implementation.</li> <li>Resulting score = 75.</li> </ul> <p><u>Years 3:</u></p> <ul style="list-style-type: none"> <li>Continue implementing the plan as designed in Year 1.</li> <li>Update the Audit Team as to progress of implementation, and provide a summary of findings.</li> <li>If necessary, the Client should meet fishery managers to review data and discuss possible changes to HCRs.</li> <li>Resulting score = 75.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>Demonstrate that the SG80 requirement of Slb is met, such that the HCRs are likely to be robust to the main uncertainties.</li> <li>Resulting score = 80</li> </ul>
Client Action Plan	<u>Year 1:</u>

		<p>The Client, in consultations with Estonian Fishery Inspectorate, Ministry of Environment, Ministry of Rural Affairs and Estonian Marine Institute, will develop a plan of survey aiming to describe patterns and magnitude of illegal fishing in Peipus Lake, including discards of juvenile perch. The latest question will be addressed in detail by the Estonian Marine Institute in the framework of a project "<i>Discarding and the survival of discard of Lake Peipsi commercial fisheries: impact assessment of different fishing gears and techniques</i>". Recreational fishing will be studied by Ministry of Rural Affairs with a support of European Maritime and Fisheries Fund (EMFF), which carries out regular surveys every two-three years in the entire Estonia including Lake Peipus:</p> <p><a href="http://www.envir.ee/sites/default/files/harrastuskalapyyk_2012.pdf">http://www.envir.ee/sites/default/files/harrastuskalapyyk_2012.pdf</a></p> <p><a href="http://www.envir.ee/sites/default/files/harrastuskalastajate_uuring_2016_euk_logodega.pdf">http://www.envir.ee/sites/default/files/harrastuskalastajate_uuring_2016_euk_logodega.pdf</a></p> <p>The Client will observe projects fulfilled by the Estonian Marine Institute and Ministry of Rural Affairs and keep the Certifier informed about the progress.</p> <p>Regarding the quantification of the recreational fishing, at the moment, there is agreement (but not formal contract so far) with some company to perform sociological survey of recreational fishing (which includes (i) field survey in the Lake, (ii) telephone, and (ii) internet survey). The survey is planned for years 2019-2020, so the results will be available in 2020. It is not clear in what form they will be published, but at least partly, the essential results will be available publicly in 2020</p> <p><u>Year 2:</u></p> <p>Collection of field data aimed to describe patterns and to estimate magnitude of illegal fishing (including discards of juveniles) in cold and warm seasons (in-depth interviews with stakeholders and fishers in fishing sites). Preliminary analyses of obtaining data and, based on that, modification of methodologies if needed. Observing above-mentioned projects.</p> <p><u>Year 3:</u></p> <p>Collection of field data aimed to describe patterns and to estimate magnitude of illegal fishing (including discards of juveniles) in cold and warm seasons (in-depth interviews with stakeholders and fishers in fishing sites). Consultations with the governmental agencies about methodologies and preliminary results. Observing above-mentioned projects.</p> <p><u>Year 4:</u></p> <p>Final analysis of data and preparation of the report about patterns of illegal fishing and quantitative analysis of magnitude of removals</p>
Consultation condition	on	<p>Letters of support for the Client Action Plan were provided by the Estonian Ministry of Environment and the Estonian Marine Institute, University of Tartu (please see Appendix 4 of the Public Certification Report: <a href="https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments">https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments</a>).</p>
Progress on Condition (Year 1)		<p>This Condition is 'behind target', and revised milestones are set for years 2 and 3 in accordance with 7.23.13.1.b.i (MSC 2014). It is noted that these revised milestones are consistent with the existing CAP; as such a revised CAP is not needed.</p> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Develop and implement a scientifically valid approach to quantify perch mortality associated with recreational and IUU fishing in Lake Peipus (including of juvenile by-catch and discarding).</li> <li>• Resulting score = 75.</li> </ul> <p><u>Years 3:</u></p> <ul style="list-style-type: none"> <li>• Present initial results of work undertaken to quantify perch mortality associated with recreational and IUU fishing in Lake Peipus (including of juvenile by-catch and discarding). If results indicate that mortality is significant, the Client should meet fishery managers to review data and discuss possible changes to HCRs.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 4:</u></p>

	<ul style="list-style-type: none"> <li>• Demonstrate that the SG80 requirement of SIb is met, such that the HCRs are likely to be robust to the main uncertainties.</li> <li>• Resulting score = 80</li> </ul>
Progress on Condition (Year 2)	<p>The EU and Estonian Government has funded the Estonian Marine Institute to undertake a project during 2018-2020 entitled "Discarding and the survival of discards of Lake Peipus commercial fisheries: impact assessment of different fishing gears and techniques". The project has two main goals: in addition to supporting managers in efforts to preserve the good status of Lake Peipus fish stocks, it aims to compile suggestions for environmentally-friendly solutions for fishing.</p> <p>During the project, the main commercial fishing methods are being studied: trap-nets, gill nets and Danish seines (mutniks), with the amount of unwanted catch and fish survival after release being estimated. Practically, scientists sample fish that are to be discarded from the commercial fishery and place them in cages nearby or transport them in tanks to the nearest point where it is possible to place a cage in the water. Usually the cages are very close to the place of catch. The cages are constructed so that the fish have the ability to choose the depth at which to swim (the cages designed as a cylinder 1.5 m diameter with a wall manufactured of a wire mesh of 18 mm from knot to knot include the whole water column). Survival is assessed and after a week the surviving fish are released.</p> <p>On the basis of these experiments, and in relation to factors including water temperature, net type, mesh size, soak time and handling regime, suggestions are proposed to maximize the survival rate of the released fish. The results will support the assessment of Lake Peipus commercial fish stocks through improving the estimation of fisheries mortality, and support management of the commercial fishery to minimize the unnecessary mortality of the fishes.</p> <p>By the end of the project in June 2020, a report on its results will be prepared. It is planned to publish the report as an EU project but also looking to publish some journal reports. In addition, funds are being sought to extend the project for several months in order to fully cover the 2020 fishing season. Thus, the issue of discards and survival of juvenile perch is currently under investigation.</p> <p>It was also reported to the Audit Team that a sociological survey of recreational fishing on Lake Peipus has been implemented, which includes (i) a field survey of recreational fishing on the Lake, (ii) a telephone survey, and (ii) internet survey (Liiviki Näks, Ministry of the Environment, Estonia). Surveys were designed for several years and since beginning of 2020 the results are available on the website of the Ministry of the Environment: <a href="https://www.envir.ee/sites/default/files/harkal19_aruane_logoga.pdf">https://www.envir.ee/sites/default/files/harkal19_aruane_logoga.pdf</a> (in Estonian).</p> <p>In order to be back on target with milestone timing for conditions 1, 2 and 4, Logi-F has elaborated a questionnaire survey targeting to estimate volumes of IUU fishery. This project was proposed to Fisheries Information Centre (FIC), and was funded. The survey started at March 2019 and by June 2019 the questionnaire was finalised. Altogether 42 respondents were involved in a questionnaire survey including both professional and recreational fishermen. The data presented by the client at the second surveillance audit has showed that about 17% of the harvest on Lake Peipsi can be considered as IUU catch. Compared to the official perch harvest (553 t), the calculated share of IUU perch catch (22 t) comprised 4% in 2018.</p> <p>The audit team notes that perch is not a target species for IUU fishing. If the proportion of small-mesh gillnets in the total amount of seized illegal nets (main IUU gear at Peipus Lake) shows stability from year to year, it can be expected that the volume of IUU fishing for perch is also not subject to major changes. Currently, the client is working with the Fishery Inspectorate (Ivo Kask) on the statistical accounting of gillnets with different mesh size in the total amount of illegal fishing nets seized to understand this issue in detail.</p> <p>Based on the data obtained, it is assumed that the scientists of the Maritime Institute in cooperation with Ministry of the Environment of Estonia will be able to account for the main uncertainties of recreational catch and IUU fishing, through TAC setting and ensuring the HCRs are robust.</p>
Status	This condition is considered to be 'on target', as the second milestone is met.

Additional information	None
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Table 7. Condition 2 (UoC 1: Perch)

Performance Indicator	<b>1.2.4</b> <b>Slc: The assessment takes uncertainty into account.</b>
Score	75
Justification	<p>The assessment identifies major sources of uncertainty. Estimation of the level of recreational fishing is based on questionnaires received from recreational fishers (responsibility of Ministry of Environment). Volumes of fish caught by recreational fishers are based on the number of fishermen on the Peipus Lake during winter and summer periods, the intensity of fishing, intensity of fishing of particular species of fish (targeting behaviour), and average time spent fishing during the winter and summer periods. The collected data are recorded in a so called "amateur fisher card". The level of IUU catch and discard mortality is accounted for by applying a correction factor to the fishing mortality estimate. The ultimate values of non-commercial and IUU removals and discard mortality are determined by expert review of fishery scientists of both countries at joint ERFC, but the methodology of their approximations is unclear. Essentially, it is clear that the assessment identifies major sources of uncertainty, but it is not apparent how this uncertainty is taken in to account.</p>
Condition	<p>By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Slc is met, specifically through demonstrating the following:</p> <p>Slc: <i>"The assessment takes uncertainty into account."</i></p>
Milestones	<p>Please note: Milestones here are similar or the same as those for Condition 1.</p> <p><u>Year 1:</u></p> <ul style="list-style-type: none"> <li>• Design a scientifically valid approach to determine the sources and amounts of perch mortality associated with recreational and IUU fishing in Lake Peipus (including of juvenile by-catch and discarding) that will aid in meeting the SG80 requirement for this Sl.</li> <li>• Provide a description of the plan to the Audit Team.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Implement the plan as designed in Year 1.</li> <li>• Update the Audit Team as to progress of implementation.</li> <li>• Review the appropriateness of different methods to take account of uncertainty in the perch stock assessment.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Years 3:</u></p> <ul style="list-style-type: none"> <li>• Continue implementing the plan as designed in Year 1.</li> <li>• Update the Audit Team as to progress of implementation, and provide a summary of findings.</li> <li>• If necessary, meet with fishery managers to review data, discuss uncertainties, and consider modifications to the stock assessment methods.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>• Demonstrate that the SG80 requirement of Slc is met, such that the perch stock assessment takes uncertainty into account.</li> <li>• Resulting score = 80.</li> </ul>



Client Action Plan	<p><u>Year 1:</u></p> <p>The Client, in consultations with Estonian Fishery Inspectorate, Ministry of Environment, Ministry of Rural Affairs and Estonian Marine Institute, develops a plan of survey aiming to describe of patterns and magnitude of recreational and illegal fishing of perch in Peipus Lake, including discarding of juvenile perch. The latest question will be addressed in detail by the Estonian Marine Institute in the framework of a project "<i>Discarding and the survival of discard of lake Peipsi commercial fisheries: impact assessment of different fishing gears and techniques</i>". Recreational fishing will be studied by Ministry of Rural Affairs with a support of European Maritime and Fisheries Fund (EMFF), which carries out regular surveys every two-three years in the entire Estonia including Lake Peipus:</p> <p><a href="http://www.envir.ee/sites/default/files/harrastuskalapyyk_2012.pdf">http://www.envir.ee/sites/default/files/harrastuskalapyyk_2012.pdf</a></p> <p><a href="http://www.envir.ee/sites/default/files/harrastuskalastajate_uuring_2016_euk_logodega.pdf">http://www.envir.ee/sites/default/files/harrastuskalastajate_uuring_2016_euk_logodega.pdf</a></p> <p>The Client will observe projects fulfilled by the Estonian Marine Institute and Ministry of Rural Affairs and keep the Certifier informed about the progress.</p> <p>These projects are performed by governmental agencies to provide data which will be used in the stock assessment to reduce associated uncertainties. The Client will request about how obtained information is used will keep the certifier informed about that.</p> <p><u>Year 2:</u></p> <p>Collection of field data aimed to describe patterns and to estimate magnitude of illegal perch fishing (including discards of juveniles) in cold and warm seasons (in-depth interviews with stakeholders and fishers in fishing sites) with particular attention to uncertainties of the estimates. Preliminary analyses of obtaining data and, based on that, modification of methodologies if needed. Continuous interacting with governmental agencies. Observing abovementioned projects, keeping the certifier informed about the progress.</p> <p><u>Year 3:</u></p> <p>Collection of field data aimed to describe patterns and to estimate magnitude of illegal perch fishing (including discards of juveniles) in cold and warm seasons (in-depth interviews with stakeholders and fishers in fishing sites). Consultations with the governmental agencies about methodologies and reviewing of preliminary results. Observing above-mentioned projects, keeping the certifier informed about the progress.</p> <p><u>Year 4:</u></p> <p>Final analysis of data and preparation of the report about patterns of recreational and illegal perch fishing and quantitative analysis of magnitude of removals with focus on analysis of uncertainties and how the collected information is used in the stock assessment.</p>
Consultation condition	<p>on</p> <p>Letters of support for the Client Action Plan have been provided by the Estonian Ministry of Environment and the Estonian Marine Institute, University of Tartu (please see Appendix 4 of the Public Certification report: <a href="https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments">https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments</a>).</p>
Progress on Condition (Year 1)	<p>This Condition is 'behind target', and revised milestones are set for years 2 and 3 in accordance with 7.23.13.1.b.i (MSC 2014). It is noted that these revised milestones are consistent with the existing CAP; as such a revised CAP is not needed.</p> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Develop and implement a scientifically valid approach to quantify perch mortality associated with recreational and IUU fishing in Lake Peipus (including of juvenile by-catch and discarding).</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 3:</u></p> <ul style="list-style-type: none"> <li>• Present initial results of work undertaken to quantify perch mortality associated with recreational and IUU fishing in Lake Peipus (including of juvenile by-catch and discarding). If results indicate that mortality is significant, the Client should meet with fishery managers to review data, discuss uncertainties, and consider modifications to the perch stock assessment methods and TAC setting.</li> </ul>



	<ul style="list-style-type: none"> <li>Resulting score = 75.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>Demonstrate that the SG80 requirement of S1c is met, such that the perch stock assessment takes uncertainty into account.</li> <li>Resulting score = 80</li> </ul>
Progress on Condition (Year 2)	<p>As discussed against Condition 1, within a frame of the EU project (2018-2020) information is being collected to assess uncertainty related to discards and survival of juvenile perch, which will be used in stock assessment and TAC setting. A comprehensive sociological survey of recreational fishing on Lake Peipus has been completed and the results are available on the website of the Ministry of the Environment since the beginning of 2020: <a href="https://www.envir.ee/sites/default/files/harkal19_aruanne_logoga.pdf">https://www.envir.ee/sites/default/files/harkal19_aruanne_logoga.pdf</a> (in Estonian).</p> <p>In order to be back on target with milestone timing for conditions 1, 2 and 4, Logi-F has elaborated a questionnaire survey targeting to estimate volumes of IUU fishery. This project was proposed to Fisheries Information Centre (FIC), and was funded. The survey started at March 2019 and by June 2019 the questionnaire was finalised. Altogether 42 respondents were involved in a questionnaire survey including both professional and recreational fishermen. The data presented by the client at the second surveillance audit has showed that about 17% of the harvest on Lake Peipsi can be considered as IUU catch. Compared to the official perch harvest (553 t), the calculated share of IUU perch catch (22 t) comprised 4% in 2018.</p> <p>It is assumed that, based on the data obtaining during CAP implementation for 3<sup>rd</sup> and 4<sup>th</sup> Audits, the scientists of the Maritime Institute in cooperation with Ministry of the Environment of Estonia will be able to demonstrate how the uncertainties are taken in to account in the assessment.</p>
Status	This condition is considered to be 'on target', as the second milestone is met.
Additional information	None.

Table 8. Condition 3 (UoC 2: Pike-perch)

Performance Indicator	<p><b>1.2.1</b></p> <p><b>S1f: There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of the target stock and they are implemented as appropriate.</b></p>
Score	75
Justification	<p>Whilst there is evidence that there are at least regular reviews of measures to minimise UoA-related mortality of unwanted catch of pike-perch, so that SG60 is met, the Assessment Team was made aware of a concern that there is an unknown level of pike-perch mortality occurring in the summer trapnet fishery, which has increased in intensity in recent 3-5 years (V. Vaino, pers. comm., site visit). The Assessment Team was also made aware that there is intent to investigate this issue and that funding was being sought for the work, but had yet to be obtained. However, in the absence of a review of this issue, and the introduction of measures as appropriate to minimise UoA-related mortality from this cause, it is not possible to confirm that the fishery meets SG80.</p>
Condition	By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of S1f is met, specifically through demonstrating the following:

	<p>Slf: <i>"There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of the target stock and they are implemented as appropriate."</i></p>
Milestones	<p>Please note: Milestones here are similar or the same as those for Condition 4</p> <p><u>Year 1:</u></p> <ul style="list-style-type: none"> <li>• Design a scientifically valid approach to determine the sources and amounts of pike-perch mortality associated with discarding in the summer trapnet fishery that will aid in meeting the SG80 requirement for this SI.</li> <li>• Provide a description of the plan to the Audit Team.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Implement the plan as designed in Year 1.</li> <li>• Update the Audit Team as to progress of implementation.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Years 3:</u></p> <ul style="list-style-type: none"> <li>• Continue implementing the plan as designed in Year 1.</li> <li>• Update the Audit Team as to progress of implementation, and provide a summary of findings.</li> <li>• Develop and/or test options to minimise discard mortality in the fishery, as appropriate.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>• Demonstrate that the SG80 requirement of SI is met, such that there is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of the target stock <u>and they are implemented as appropriate.</u></li> <li>• Resulting score = 80</li> </ul>
Client Action Plan	<p><u>Year 1:</u></p> <p>The issue on juvenile discards of pike-perch be fully addressed in the project of the Estonian Marine Institute entitled "Discarding and the survival of discard of Lake Peipus commercial fisheries: impact assessment of different fishing gears and techniques". The Client will observe about the progress of the project and will inform the certifier about it. The Client will discuss the design of the project and utilisation of its results with a focus on alternative ways to reduce of bycatch of juvenile pike-perch with Estonian Marine Institute and will inform about this the certifier.</p> <p><u>Year 2:</u></p> <p>The Client observes a progress of a project of the Estonian Marine Institute entitled "Discarding and the survival of discard of Lake Peipsi commercial fisheries: impact assessment of different fishing gears and techniques" discuss obtained results and different ways of reducing pike-perch juvenile bycatch with the Estonian Marine Institute and keep the certifier informed about this.</p> <p><u>Year 3:</u></p> <p>Collecting of field information in the frame of the project on discarding and the survival of discard of Lake Peipus commercial fisheries: impact assessment of different fishing gears. Informing the certifier about the progress of the project. The Client discusses obtained results and different ways of reducing pike-perch juvenile bycatch with the Estonian Marine Institute and keep the certifier informed about this.</p> <p><u>Year 4:</u></p> <p>Collecting of field information in the frame of the project on discarding and the survival of discard of Lake Peipsi commercial fisheries: impact assessment of different fishing gears. Informing the certifier about the progress of the project. Feasible options to minimise</p>

	discarding that are identified in Year 3 are implemented as appropriate. The Client prepares a final report for certifier about results of the project.
Consultation condition	on Letters of support for the Client Action Plan have been provided by the Estonian Ministry of Environment and the Estonian Marine Institute, University of Tartu (please see Appendix 4 of the Public Certification report: <a href="https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments">https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments</a> ).
Progress on Condition (Year 1)	This condition is considered to be 'on target', as the first milestone is met.
Progress on Condition (Year 2)	<p>The EU and Estonian Government has funded the Estonian Marine Institute to undertake a project during 2018-2020 entitled "Discarding and the survival of discards of Lake Peipus commercial fisheries: impact assessment of different fishing gears and techniques". The project has two main goals: in addition to supporting managers in efforts to preserve the good status of Lake Peipus fish stocks, it aims to compile suggestions for environmentally-friendly solutions for fishing.</p> <p>During the project, the main commercial fishing methods are being studied: trap-nets, gill nets and Danish seines (mutniks), with the amount of unwanted catch and fish survival after release being estimated. Practically, scientists sample fish that are to be discarded from the commercial fishery and place them in cages nearby or transport them in tanks to the nearest point where it is possible to place a cage in the water. Usually the cages are very close to the place of catch. The cages are constructed so that the fish have the ability to choose the depth at which to swim (the cages designed as a cylinder 1.5 m diameter with a wall manufactured of a wire mesh of 18 mm from knot to knot include the whole water column). Survival is assessed and after a week the surviving fish are released.</p> <p>On the basis of these experiments, and in relation to factors including water temperature, net type, mesh size, soak time and handling regime, suggestions are proposed to maximize the survival rate of the released fish. The results will support the assessment of Lake Peipus commercial fish stocks through improving the estimation of fisheries mortality, and support management of the commercial fishery to minimize the unnecessary mortality of the fishes. In particular, the primary results on summer trap-nets for previous seasons (2018-2019) show that with high temperature and low oxygen content in water, the mortality rate of discarded fish can reach 30-50%.</p> <p>By the end of the project in June 2020, a report on its results will be prepared. It is planned to publish the report as an EU project but also looking to publish some journal reports. In addition, funds are being sought to extend the project for several months in order to fully cover the 2020 fishing season. Thus, the issue of discards and survival of pike-perch is currently under investigation.</p> <p>As an alternative measure to avoid unwanted by-catch of the target fish species, it should be mentioned that in 2019, like in previous year, Estonian fishers were able to participate in a programme to purchase trap-nets with a large mesh size (40-45 mm) in compared with the permitted mesh size (24 mm). This program was developed taking into account the views of science (Marine Institute, Estonia) and is funded by the EU (the subsidy is up to 80% of the cost of fishing gear, which on average costs about 10 thousand Euros).</p> <p>Currently, active consultations are being held between the associations of professional fishermen of Lake Peipsi and the Ministry of Environment of Estonia on a possible transition from the so-called Olympic fishing system to individual quotas for certain fish species. A possible transition to individual quotas could be another tool to reduce unwanted by-catch of the target fish species, as fishermen will be interested in catching fish of a market size.</p>
Status	This condition is considered to be 'on target', as the second milestone is met.
Additional information	None

Table 9. Condition 4 (UoC 2: Pike-perch)

Performance Indicator	<b>1.2.4</b> <b>Slc: The assessment takes uncertainty into account.</b>
Score	75
Justification	The assessment identifies major sources of uncertainty. The level of non-commercial and IUU catch and discard mortality is accounted for by applying a correction factor to the fishing mortality estimate. The ultimate values of non-commercial and IUU removals and discard mortality are determined by expert review of fishery scientists of both countries at joint ERFC, but the methodology of their approximations is unclear. Essentially, it is clear that the assessment identifies major sources of uncertainty, but it is not apparent how this uncertainty is taken in to account.
Condition	<p>By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Slc is met, specifically through demonstrating the following:</p> <p>Slc: <i>"The assessment takes uncertainty into account."</i></p>
Milestones	<p>Please note: Milestones here are similar or the same as those for Condition 3</p> <p><u>Year 1:</u></p> <ul style="list-style-type: none"> <li>• Design a scientifically valid approach to determine the sources and amounts of pike-perch mortality associated with recreational and IUU fishing in Lake Peipus (including of juvenile by-catch and discarding) in the summer trapnet fishery that will aid in meeting the SG80 requirement for this Sl.</li> <li>• Provide a description of the plan to the Audit Team.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Implement the plan as designed in Year 1.</li> <li>• Update the Audit Team as to progress of implementation.</li> <li>• Consider the appropriateness of different methods to take account of uncertainty in the pike-perch stock assessment.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Years 3:</u></p> <ul style="list-style-type: none"> <li>• Continue implementing the plan as designed in Year 1.</li> <li>• Update the Audit Team as to progress of implementation, and provide a summary of findings.</li> <li>• If necessary, meet with fishery managers to review data, discuss uncertainties, and consider modifications to the pike-perch stock assessment methods.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>• Demonstrate that the SG80 requirement of Slc is met, such that the pike-perch stock assessment takes uncertainty into account.</li> <li>• Resulting score = 80</li> </ul>
Client Action Plan	<p><u>Year 1:</u></p> <p>The Client, in consultations with Estonian Fishery Inspectorate, Ministry of Environment, Ministry of Rural Affairs and Estonian Marine Institute, develops a plan of survey aiming to describe of patterns and magnitude of recreational and illegal fishing of pike-perch in Peipus Lake, including discarding of juvenile pike-perch. The latest question will be addressed in detail by the Estonian Marine Institute in the framework of a project "Discarding and the survival of discard of Lake Peipsi commercial fisheries: impact assessment of different fishing gears and techniques". Recreational fishing will be studied by Ministry of Rural Affairs with a</p>

		<p>support of European Maritime and Fisheries Fund (EMFF), which carries out regular surveys every two-three years in the entire Estonia including Lake Peipus:</p> <p><a href="http://www.envir.ee/sites/default/files/harrastuskalapyyk_2012.pdf">http://www.envir.ee/sites/default/files/harrastuskalapyyk_2012.pdf</a></p> <p><a href="http://www.envir.ee/sites/default/files/harrastuskalastajate_uuring_2016_euk_logodega.pdf">http://www.envir.ee/sites/default/files/harrastuskalastajate_uuring_2016_euk_logodega.pdf</a></p> <p>The Client will observe projects fulfilled by the Estonian Marine Institute and Ministry of Rural Affairs and keep the Certifier informed about the progress.</p> <p>These projects are performed by governmental agencies to provide data which will be used in the stock assessment to reduce associated uncertainties. The Client will request about how obtained information is used will keep the certifier informed about that.</p> <p><u>Year 2:</u></p> <p>Collection of field data aimed to describe patterns and to estimate magnitude of illegal pike-perch fishing (including discards of juveniles) in cold and warm seasons (in-depth interviews with stakeholders and fishers in fishing sites) with particular attention to uncertainties of the estimates. Preliminary analyses of obtaining data and, based on that, modification of methodologies if needed. Continuous interacting with governmental agencies. Observing abovementioned projects, keeping the certifier informed about the progress.</p> <p><u>Year 3:</u></p> <p>Collection of field data aimed to describe patterns and to estimate magnitude of illegal pike-perch fishing (including discards of juveniles) in cold and warm seasons (in-depth interviews with stakeholders and fishers in fishing sites). Consultations with the governmental agencies about methodologies and reviewing of preliminary results. Observing abovementioned projects, keeping the certifier informed about the progress.</p> <p><u>Year 4:</u></p> <p>Final analysis of data and preparation of the report about patterns of recreational and illegal pike-perch fishing and quantitative analysis of magnitude of removals with focus on analysis of uncertainties and how the collected information is used in the stock assessment.</p>
Consultation condition	on	<p>Letters of support for the Client Action Plan have been provided by the Estonian Ministry of Environment and the Estonian Marine Institute, University of Tartu (please see Appendix 4 of the Public Certification report: <a href="https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments">https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments</a>).</p>
Progress on Condition (Year 1)		<p>This Condition is 'behind target'.</p> <p>Revised milestones are set for years 2 and 3 in accordance with 7.23.13.1.b.i (MSC 2014). It is noted that these revised milestones are consistent with the existing CAP; as such a revised CAP is not needed.</p> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Develop and implement a scientifically valid approach to quantify pike-perch mortality associated with recreational and IUU fishing in Lake Peipus (including of juvenile by-catch and discarding in the summer trapnet fishery). Review the appropriateness of different methods to take account of uncertainty in the pike-perch stock assessment and TAC setting.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 3:</u></p> <ul style="list-style-type: none"> <li>• Present initial results of work undertaken to quantify pike-perch mortality associated with recreational and IUU fishing in Lake Peipus (including of juvenile by-catch and discarding in the summer trapnet fishery). If results indicate that mortality is significant, the Client should meet with fishery managers to review data, discuss uncertainties, and consider modifications to the pike-perch stock assessment methods and TAC setting.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>• Demonstrate that the SG80 requirement of Slc is met, such that the pike-perch stock assessment takes uncertainty into account.</li> </ul>

	<ul style="list-style-type: none"> <li>Resulting score = 80</li> </ul>
Progress on Condition (Year 2)	<p>As discussed against Condition 3, within a frame of the EU project (2018-2020) information is being collected to assess uncertainty related to discards and survival of pike-perch, which has to be used in stock assessment and TAC setting. A comprehensive sociological survey of recreational fishing on Lake Peipus has been completed and the results are available on the website of the Ministry of the Environment since the beginning of 2020: <a href="https://www.envir.ee/sites/default/files/harkal19_aruane_logoga.pdf">https://www.envir.ee/sites/default/files/harkal19_aruane_logoga.pdf</a> (in Estonian).</p> <p>In order to be back with milestones timing for conditions 1, 2 and 4, Logi-F has elaborated a questionnaire survey targeting to estimate volumes of IUU fishery. This project was proposed to Fisheries Information Centre (FIC), and was funded. The survey started at March 2019 and by June 2019 the questionnaire was finalised. Altogether 42 respondents were involved in a questionnaire survey including both professional and recreational fishermen. The data presented by the client at the second surveillance audit has showed that about 17% of the harvest on Lake Peipsi can be considered as IUU catch. The calculated share of IUU catch (223 t) to official pike-perch harvest (667 t) comprised 25% in 2018.</p> <p>The nature of IUU fishing is such that there is likely to be a high level of uncertainty around this estimate, and we note that this level of IUU catch is not consistent with information provided in interviews undertaken previously with science, management and enforcement staff. Nevertheless, it is noted that stock status is assessed annually using extensive, fishery-independent methods, so although there may be uncertainty over the proportional contribution of IUU catch on total mortality of the stock, the stock assessment results are robust to IUU fishing.</p> <p>It is assumed that, based on the data obtained, the scientists of the Maritime Institute in tight cooperation with Ministry of the Environment of Estonia will be able to propose solutions for better management of the fishery, including TAC setting and ensuring the HCRs are robust to the main uncertainties.</p>
Status	This condition is considered to be 'on target', as the second milestone is met.
Additional information	None.

Table 10. Condition 5 (UoCs 1 and 2)

Performance Indicator	<p><b>2.3.2</b></p> <p><b>Slb: There is a strategy in place that is expected to ensure the UoA does not hinder the recovery of ETP species.</b></p> <p><b>Slc: There is an objective basis for confidence that the strategy will work, based on information directly about the fishery and/or the species involved.</b></p>
Score	65
Justification	<p><i>The Lake Peipus Perch and Pike-perch Fishery has a number of measures in place which are expected to ensure that the UoA does not hinder the recovery of asp and wels catfish as ETP species. However, it is not possible to say that there is a strategy in place, in particular because information on interactions is anecdotal, only (Slb). Further, in the absence of any data on captures and the condition of the fish upon release, it is not possible to say that there is an objective basis for confidence that the measures/strategy will work (Slc).</i></p> <p>These requirements are clearly linked and so the same Condition is set to address both Slb and Slc.</p>

Condition	<p>By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of SIb and SIc are met, specifically through demonstrating the following:</p> <p>SIb: <i>“There is a strategy in place that is expected to ensure the UoA does not hinder the recovery of ETP species.”</i></p> <p>SIc: <i>“There is an objective basis for confidence that the strategy will work, based on information directly about the fishery and/or the species involved.”</i></p>
Milestones	<p><u>Year 1:</u></p> <ul style="list-style-type: none"> <li>• Conduct a review of the evidence base for interactions between the Lake Peipus gillnet and trapnet fisheries and asp and wels catfish as ETP species.</li> <li>• Develop a plan to implement a strategy to manage impacts on asp and wels catfish, paying particular attention to the MSC definition of a ‘strategy’ (Table SA8, MSC 2014).</li> <li>• Conduct and present a preliminary analysis to determine if the proposed strategy will work.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• If necessary, refine the strategy to manage impacts on asp and wels catfish based on the preliminary analysis presented at Year 1.</li> <li>• Implement the plan as designed in Year 1 / refined in Year 2.</li> <li>• Update the Audit Team as to progress of implementation.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Years 3:</u></p> <ul style="list-style-type: none"> <li>• Continue implementing the plan as designed in Year 1 / refined in Year 2.</li> <li>• Present initial results from the implementation of the strategy.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>• Demonstrate that the SG80 requirements of SIb and SIc are met, such that there is a strategy to manage asp and wels catfish as ETP species in place, and that there is an objective basis for confidence that it will work.</li> <li>• Resulting score = 80 (for SIb and SIc). It is noted that if this Condition is met but Condition 6 is not met then the resulting score for PI 2.3.2 overall will still be &lt;80.</li> </ul>
Client Action Plan	<p><u>Year 1:</u></p> <p>Develop a plan of implementation of a strategy to managing impacts of UoA on redlisted fish species. In the first turn, to pay attention to (i) collecting information about interaction of redlisted species with fishing gear, (ii) assessment of effect of fishery removals in the UoA on population status of redlisted species, and (iii) to developing measures to reduce effect of UoA on redlisted species as elements of the strategy. Collect and summarise available information about interaction of redlisted species with fishing gear in the UoA by interviewing stakeholders (fishery inspection, fishers). Contact a non-profit organisation which, according to information from the Estonian Marine Institute, deals with research and protection of asp (tag/recapture and telemetry studies, stocking of the young fish into the Emajõgi river, studies of the habitat use of asp).</p> <p><u>Year 2:</u></p> <p>Develop a plan to implement a strategy to manage impacts on asp and wels catfish. Conduct and present a preliminary analysis to determine if the proposed strategy will work.</p> <p><u>Year 3:</u></p> <p>Presenting initial results regarding the implementation of the strategy. If necessary, refine the strategy to manage impacts on redlisted species based on the preliminary analysis presented at Year 2.</p> <p><u>Year 4:</u></p>

	Demonstrate that there is a strategy to manage asp and wels catfish as ETP species in place, and that there is an objective basis for confidence that it will work.
Consultation condition	on Letters of support for the Client Action Plan have been provided by the Estonian Ministry of Environment and the Estonian Marine Institute, University of Tartu (please see Appendix 4 of the Public Certification report: <a href="https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments">https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments</a> ).
Progress on Condition (Year 1)	<p>For asp, the publication of the Protection Action Plan is clearly very positive, and provides a lot of background information that was sought for the Condition. Importantly, it also supports the finding at assessment that the fishery is highly likely to be not hindering recovery of asp (i.e., PI 2.3.1). For wels catfish, the evidence presented at year 1 also supports the finding at assessment that the fishery is highly likely to be not hindering recovery of this species.</p> <p>Nevertheless, the key issue identified for this condition is that data on catches of ETP fish species within the certified fishery are insufficient to allow the magnitude of the fishery impact to be determined, which is critical to the MSC definition of a strategy (Table SA8, MSC 2014), which includes that it “<i>should contain mechanisms for the modification [of] fishing practices in the light of the identification of unacceptable impacts.</i>” In essence, some data on the magnitude of catches is needed in order to determine if the fishery may cause unacceptable impacts. This was identified in the Year 1 milestone for this condition, and in the accompanying action plan (“<i>In the first turn, to pay attention to (i) collecting information about interaction of redlisted species with fishing gear, (ii) assessment of effect of fishery removals in the UoA on population status of redlisted species</i>”), and the Audit Team was not presented with information to suggest that progress had been made in these regards. As such, for both asp and wels catfish, this Condition is ‘behind target’.</p> <p>Revised milestones are set for years 2 and 3 in accordance with 7.23.13.1.b.i (MSC 2014). It is noted that these revised milestones are consistent with the existing CAP; as such a revised CAP is not needed.</p> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Develop and implement a plan to quantify mortality (based on catches and estimated survival rates) of asp and wels catfish in the certified fishery by gear type, lake and/or season as appropriate.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Year 3:</u></p> <ul style="list-style-type: none"> <li>• Present initial results of work undertaken to quantify mortality of asp and wels catfish in the certified fishery. If results indicate that mortality is significant, present proposals for changes to management deemed necessary to ensure the fishery is highly likely to not hinder the recovery of asp and wels catfish.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>• Demonstrate that there is a strategy to manage asp and wels catfish as ETP species in place, and that there is an objective basis for confidence that it will work.</li> <li>• Resulting score = 80 (for SIb and SIc). It is noted that if this Condition is met but Condition 6 is not met then the resulting score for PI 2.3.2 overall will still be &lt;80.</li> </ul>
Progress on Condition (Year 2)	<p>For asp, the Audit Team was informed that activities proposed under the Asp Protection Action Plan are being implemented as planned (Liivika Naks, pers. comm.).</p> <p>For both asp and wels catfish, there are several things to report for the 2019 year.</p> <ol style="list-style-type: none"> <li>1) The 2018-2020 Estonian Marine Institute study entitled “Discarding and the survival of discards of Lake Peipus commercial fisheries: impact assessment of different fishing gears and techniques”, as mentioned in the update for Condition 1, is looking opportunistically to test survival of any asp and wels catfish observed caught during sampling trips aboard commercial vessels. A single wels catfish was observed in more than 50 trapnets hauls; this animal was placed into the holding cage and was healthy upon release (E. Sepp, Estonian Marine Institute, pers. comm.).</li> </ol>



	<p>2) As mentioned in the update for Condition 1, Logi-F has elaborated a questionnaire survey of commercial and recreational fishermen, to ask about levels of IUU fishing but also to ask about catches of ETP species. The survey started at March 2019 and by June 2019 the questionnaire was finalised. Altogether 42 respondents were involved in a questionnaire survey including both professional and recreational fishermen. Data collected on the ETP species is currently being worked up (D.Lajus, pers. comm.).</p> <p>3) A review of wels catfish has also been initiated for the Estonian Red Data Book. This species is currently listed as nationally Endangered (<a href="http://www.zbi.ee/punane/liigid/selgroogsed_e.html">http://www.zbi.ee/punane/liigid/selgroogsed_e.html</a>), but the information for wels catfish will now be updated (L. Naks, pers. comm.). More information on this will be sought specifically for the Year 3 audit.</p> <p>4) A new study has been initiated through the Fisheries information Centre, to assess the impact of current fishing activity and different gears on ETP species within Lake Peipus. Information on ETP species will be collected through surveys of fishermen and fishing companies, through undertaking experimental fishing, and from detailed commercial fisheries reporting (by a group of willing fishermen). In addition, options to release ETP species without harm will be reviewed, and recommendations made for methods to minimize impacts of commercial fishing on ETP species. The Audit Team was provided with a project proposal, and confirmation that the study has been funded (T. Armulik, Fisheries Information Centre, pers. comm.).</p> <p>Together, these studies demonstrate clear progress in the approach to asp and wels catfish are sufficient to meet the requirements of Year 2 milestone.</p>
Status	This condition is considered to be 'on target', as the second milestone is met.
Additional information	None

Table 11. Condition 6 (UoCs 1 and 2)

Performance Indicator	<p><b>2.3.2</b></p> <p><b>Sle: There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and they are implemented as appropriate.</b></p>
Score	65
Justification	There is consideration of asp and catfish stock status in the annual Estonian science review (e.g., EMI 2017), but it is not clear that there is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and that they are implemented as appropriate.
Condition	<p>By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of SId is met, specifically through demonstrating the following:</p> <p>Sle: <i>"There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and they are implemented as appropriate."</i></p>
Milestones	<p><u>Year 1:</u></p> <ul style="list-style-type: none"> <li>Develop a plan to conduct regular reviews of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species, paying particular attention to the MSC definition of 'regular' (SA3.5.3.2, MSC 2014).</li> <li>Resulting score = 65.</li> </ul>

		<p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Implement the plan as designed in Year 1.</li> <li>• Update the Audit Team as to progress of implementation.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Years 3:</u></p> <ul style="list-style-type: none"> <li>• Continue implementing the plan as designed in Year 1.</li> <li>• Update the Audit Team as to progress of implementation.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>• Demonstrate that the SG80 requirements of SId are met, such that a review has taken place and there is a process in place to ensure 'regular' reviews are undertaken.</li> <li>• Resulting score = 80 (for SId). It is noted that if this Condition is met but Condition 5 is not met then the resulting score for PI 2.3.2 overall will still be &lt;80.</li> </ul>
Client Action Plan		<p><u>Year 1:</u></p> <p>Develop a plan to conduct regular reviews of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species. To carry out consultations with key stakeholders - Ministry of Environment, Estonian Marine Institute and Estonian Fund for Nature about organisation of such regular (once a two years) reviews.</p> <p><u>Year 2:</u></p> <p>Discussing with key stakeholders a plan on collecting field data on effect of UoA on redlisted fish species and analysis of feedback from them.</p> <p><u>Year 3:</u></p> <p>Reporting field data on interaction of redlisted fish species to key stakeholders and analysis their feedback on potential options to minimise UoA-related mortality of ETP species.</p> <p><u>Year 4:</u></p> <p>To summarise reviews from stakeholders and demonstrate that the SG80 requirements of SId are met. Feasible options to minimise discarding that are identified in Year 3 are implemented as appropriate.</p>
Consultation condition	on	<p>Letters of support for the Client Action Plan have been provided by the Estonian Ministry of Environment and the Estonian Marine Institute, University of Tartu (please see Appendix 4 of the Public Certification report: <a href="https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments">https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments</a>).</p>
Progress on Condition (Year 1)		<p>This Condition is 'behind target'.</p> <p>Revised milestones are set for years 2, 3 and 4 in accordance with 7.23.13.1.b.i (MSC 2014). It is noted that these revised milestones are consistent with the existing CAP; as such a revised CAP is not needed.</p> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Develop and implement a plan to assess factors affecting interaction rates and mortality rates of asp and wels catfish in the certified fishery by gear type, lake and/or season as appropriate. This may be undertaken usefully in association with a study designed to address Condition 5.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Year 3:</u></p> <ul style="list-style-type: none"> <li>• Undertake a review of alternative measures to minimise UoA-related mortality of ETP species and present findings.</li> <li>• Demonstrate there is a plan in development to ensure that any alternative measures deemed 'appropriate' will be implemented.</li> <li>• Demonstrate that there is a plan in development to ensure that a review of alternative measures is undertaken 'regularly'.</li> <li>• Resulting score = 65.</li> </ul>

	<p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>• Demonstrate that the SG80 requirements of SId are met, such that there is a process in place to ensure 'regular' reviews are undertaken and appropriate measures are implemented.</li> <li>• Resulting score = 80 (for SId). It is noted that if this Condition is met but Condition 5 is not met then the resulting score for PI 2.3.2 overall will still be &lt;80.</li> </ul>
Progress on Condition (Year 2)	<p>For the Year 2 audit, the team was provided with an update on the studies relevant to ETP species, as mentioned in the progress report for Condition 6.</p> <ol style="list-style-type: none"> <li>1) The 2018-2020 Estonian Marine Institute study entitled "Discarding and the survival of discards of Lake Peipus commercial fisheries: impact assessment of different fishing gears and techniques", as mentioned in the update for Condition 1, is looking opportunistically to test survival of any asp and wels catfish observed caught during sampling trips aboard commercial vessels. Although the focus of the study is perch and pike-perch, on the basis of these experiments, and in relation to factors including water temperature, net type, mesh size, soak time and handling regime, suggestions are proposed to maximize the survival rate of the released fish. It is anticipated that the results will support future reviews of alternative measures to minimise UoA-related mortality of ETP species.</li> <li>2) The new study has also been initiated through the Fisheries information Centre, to assess the impact of current fishing activity and different gears on ETP species within Lake Peipus. As part of the project, options to release ETP species without harm will be reviewed, and recommendations made for methods to minimize impacts of commercial fishing on ETP species.</li> </ol> <p>Together, these studies demonstrate clear progress in the approach to asp and wels catfish are sufficient to meet the requirements of Year 2 milestone.</p>
Status	This condition is considered to be 'on target', as the second milestone is met.
Additional information	None

Table 12. Condition 7 (UoCs 1 and 2)

Performance Indicator	<p><b>2.3.3</b></p> <p><b>SlA: Some quantitative information is adequate to assess the UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of the ETP species.</b></p> <p><b>SlB: Information is adequate to measure trends and support a strategy to manage impacts on ETP species.</b></p>
Score	60
Justification	<p>Only asp and wels catfish were determined to be ETP species, and both species were reported by stakeholders to be taken in the fishery very rarely. However, there is no quantitative information available that is adequate to assess the UoA related mortality (SlA). Further, while information including knowledge of asp and wels catfish spawning behaviour and habitat preferences, as well as some data on population status and fishing activity are collected, and is adequate to support measures to manage impacts, it is not adequate to measure trends and support a strategy to manage impacts on ETP species (SlC).</p> <p>These requirements are clearly linked and so the same Condition is set to address both SlA and SlB.</p>

Condition	<p>By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Sla and Slb are met, specifically through demonstrating the following:</p> <p>Sla: <i>“Some quantitative information is adequate to assess the UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of the ETP species.”</i></p> <p>Slb: <i>“Information is adequate to measure trends and support a strategy to manage impacts on ETP species.”</i></p>
Milestones	<p><u>Year 1:</u></p> <ul style="list-style-type: none"> <li>Design a scientifically valid approach to address the condition by collecting quantitative data on asp and wels catfish captures and mortalities in the fishery, and measure trends.</li> <li>Resulting score = 60.</li> </ul> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>Implement the plan as designed in Year 1.</li> <li>Update the Audit Team as to progress of implementation.</li> <li>Resulting score = 60.</li> </ul> <p><u>Year 3:</u></p> <ul style="list-style-type: none"> <li>Continue implementing the plan as designed in Year 1.</li> <li>Present initial results from the implementation of the strategy.</li> <li>Resulting score = 60.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>Demonstrate that the SG80 requirements of Sla and Slb are met, such that there is some quantitative information that is adequate to assess UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of asp and wels catfish, and that information is adequate to measure trends and support a strategy to manage impacts on asp and wels catfish.</li> <li>Resulting score = 80</li> </ul>
Client Action Plan	<p><u>Year 1:</u></p> <p>Develop a scientifically valid plan of collecting quantitative data on effects of UoA on asp and wels with fishing gear. To pay attention to three questions: (i) quantitative information on interaction of redlisted species with UoA gear, (ii) mortality resulting from these interactions, (iii) population trends of asp and wels.</p> <p><u>Year 2:</u></p> <p>Collection of field data on interaction of redlisted species with UoA gear and associated mortality.</p> <p><u>Year 3:</u></p> <p>Collection of field data on interaction of redlisted species with UoA gear and associated mortality.</p> <p><u>Year 4:</u></p> <p>Summarising of field data on interaction of redlisted species with UoA gear and associated mortality collected during years 2 and 3. Analysis of available data on population status of asp and well and assessment of risks for population of redlisted species caused by mortality caused by interaction with UoA fishing gear.</p>
Consultation condition	<p>on Letters of support for the Client Action Plan have been provided by the Estonian Ministry of Environment and the Estonian Marine Institute, University of Tartu (please see Appendix 4 of the Public Certification report: <a href="https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@assessments">https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@assessments</a>).</p>
Progress on Condition (Year 1)	<p>This Condition is ‘behind target’.</p>

	<p>Revised milestones are set for years 2, 3 and 4 in accordance with 7.23.13.1.b.i (MSC 2014). It is noted that these revised milestones are consistent with the existing CAP; as such a revised CAP is not needed.</p> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Develop and implement a plan to quantify mortality (based on catches and estimated survival rates) of asp and wels catfish in the certified fishery by gear type, lake and/or season as appropriate. This may be undertaken usefully in association with a study designed to address Condition 5.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Year 3:</u></p> <ul style="list-style-type: none"> <li>• Present initial results of work undertaken to quantify mortality of asp and wels catfish in the certified fishery.</li> <li>• Demonstrate that there is a plan in development to ensure that data will be collected to measure trends in catches over time.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>• Demonstrate that the SG80 requirements of Sla and Slb are met, such that there is some quantitative information that is adequate to assess UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of asp and wels catfish, and that information is adequate to measure trends and support a strategy to manage impacts on asp and wels catfish.</li> <li>• Resulting score = 80</li> </ul>
Progress on Condition (Year 2)	<p>For the Year 2 audit, the team was provided with an update on the studies relevant to ETP species, as mentioned in the progress report for Condition 7.</p> <p>For asp and wels catfish, there are several things to report for the 2019 year.</p> <ol style="list-style-type: none"> <li>1) The 2018-2020 Estonian Marine Institute study entitled "Discarding and the survival of discards of Lake Peipus commercial fisheries: impact assessment of different fishing gears and techniques", as mentioned in the update for Condition 1, is looking opportunistically to test survival of any wels catfish observed caught during sampling trips aboard commercial vessels. A single wels catfish was observed in more than 50 trapnets hauls; this animal was placed into the holding cage and was healthy upon release (E. Sepp, Estonian Marine Institute, pers. comm.).</li> <li>2) As mentioned in the update for Condition 1, Logi-F has elaborated a questionnaire survey of commercial and recreational fishermen, to ask about levels of IUU fishing but also to ask about catches of ETP species. The survey started at March 2019 and by June 2019 the questionnaire was finalised. Altogether 42 respondents were involved in a questionnaire survey including both professional and recreational fishermen. Data collected on the ETP species is currently being worked up (D.Lajus, pers. comm.).</li> <li>3) A new study has been initiated through the Fisheries information Centre, to assess the impact of current fishing activity and different gears on ETP species within Lake Peipus. Information on ETP species will be collected through surveys of fishermen and fishing companies, through undertaking experimental fishing, and from detailed commercial fisheries reporting (by a group of willing fishermen). The Audit Team was provided with a project proposal, and confirmation that the study has been funded (T. Armulik, Fisheries Information Centre, pers. comm.).</li> </ol> <p>Together, these studies demonstrate clear progress in the approach to asp and wels catfish are sufficient to meet the requirements of Year 2 milestone.</p>
Status	This condition is considered to be 'on target', as the second milestone is met.
Additional information	None

Table 13. Condition 8 (UoCs 1 and 2)

Performance Indicator	<b>3.1.3</b> <b>Sla: Clear long-term objectives that guide decision-making, consistent with MSC fisheries standard and the precautionary approach are explicit within management policy.</b>
Score	60
Justification	<p>The EU CFP does not apply to inland fisheries, so this is covered by national (Estonian / Russian) strategic objectives and management policy, as well as the agreement that underpins the ERFC.</p> <p>The Estonian Fisheries Strategy (2014 – 2020) explicitly mentions an ecosystem approach to fisheries management in Estonia. MoE also states that “The strategic goal of fisheries is to guarantee the good condition of fish populations and the diversity of fish species” and goes on to say “It is vital to avoid the negative effect fishing has on the ecosystem. Fish populations are considered to be in good condition when fish resources can reproduce themselves naturally in the existing environmental conditions and when the species have a characteristic age structure despite the pressure of commercial fishing” (MoE, 2016).</p> <p>The recently revised Fish Act (2015)’s state purpose is to (i) ensure conservation and economic use of fish and aquatic plant resources on the basis of internationally recognized principles of responsible fisheries; (ii) ensure reproduction capacity of fish and aquatic plant resources and productivity of bodies of water; and (iii) avoid undesirable changes in the ecosystem of bodies of water.</p> <p>The use of annually-evaluated TACs, allied with a comprehensive control system (both unusually for an inland lake) suggests that a precautionary approach is implicit in the management system, and thus meets SG 60. However the ecosystem approach is not necessarily precautionary, and thus SG 80 is not met. As a result a condition has been imposed to resolve this.</p>
Condition	<p>By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Sla is met, specifically through demonstrating the following:</p> <p><i>Sla: “Clear long-term objectives that guide decision-making, consistent with MSC fisheries standard and the precautionary approach are explicit within management policy.”</i></p>
Milestones	<p><u>Year 1:</u></p> <ul style="list-style-type: none"> <li>• Provide evidence that approaches for embedding the precautionary approach into fisheries management on Lake Peipus have been discussed at national level.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Provide evidence that approaches for embedding the precautionary approach into fisheries management on Lake Peipus are agreed at national level.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Year 3:</u></p> <ul style="list-style-type: none"> <li>• Provide evidence that the agreed precautionary approach is proposed for adoption at the whole lake level at transboundary level.</li> <li>• Resulting score = 75.</li> </ul> <p><u>Years 4:</u></p> <ul style="list-style-type: none"> <li>• Provide evidence that the agreed precautionary approach is explicit within the management policy for Lake Peipus.</li> <li>• Resulting score = 80.</li> </ul>
Client Action Plan	<u>Year 1:</u>

	<p>Currently, preparation of a new concept on management of Estonian inland fisheries is in progress, according to Ministry of Environment. It is planned to incorporate in this document precautionary approach and a concept of sustainable management. The Client will observe process of preparation of this document, and also will consider with the Estonian stakeholders how to incorporate precautionary approach in the transboundary level.</p> <p><u>Year 2:</u></p> <p>Observance of process of preparation of a new document on management of Estonian inland fisheries, which will incorporate precautionary approach, and consultations about including precautionary approach in the management documents on the Peipus Lake level.</p> <p><u>Year 3:</u></p> <p>Observance of process of preparation of a new document on management of Estonian inland fisheries, which will incorporate precautionary approach, and consultations about including precautionary approach in the management documents of Peipus Lake level.</p> <p><u>Year 4:</u></p> <p>Providing evidences on including a precautionary approach in the documents on Estonian Inland fishery management and in all-Peipus Lake management.</p>
Consultation condition	on Letters of support for the Client Action Plan have been provided by the Estonian Ministry of Environment and the Estonian Marine Institute, University of Tartu (please see Appendix 4 of the Public Certification report: <a href="https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments">https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@assessments</a> ).
Progress on Condition (Year 1)	This condition is considered to be 'on target', as the first milestone is met.
Progress on Condition (Year 2)	<p>The Audit Team was informed that the Ministry of environment has now published the Fisheries Development Plan until 2030. This functions as a new overarching document regulating fisheries in Estonia. The document is available, here: <a href="https://www.agri.ee/sites/default/files/content/arengukavad/poka-2030/poka-2030-eelnou-2020-01-29.pdf">https://www.agri.ee/sites/default/files/content/arengukavad/poka-2030/poka-2030-eelnou-2020-01-29.pdf</a>.</p> <p>The document highlights that it is the responsibility of the State to organize the exploitation and conservation of the living resources that underpin fisheries, in particular by ensuring their sustainability, by adopting an ecosystem-based approach to fisheries management, but also allowing them to be used for social and economic profit.</p> <p>In this regard, the document also states:</p> <ul style="list-style-type: none"> <li>• Scientific and background research is needed to establish fishing opportunities that are commensurate with the stocks and appropriate fishing rules.</li> <li>• Active participation in the EU decision-making process is needed to ensure that regional specificities are taken into account and integrated into legislation and that sectoral EU legislation is implemented.</li> <li>• Measures to optimize fishing effort will be pursued for the sustainable exploitation of stocks and for maximum societal and economic benefits.</li> <li>• In order to reduce the impact of fishing on the ecosystem, support should be given to increasing fishing gear selectivity and reducing unwanted by-catches, including marine mammals and birds.</li> <li>• The state also supports and organizes, in cooperation with the sector, the restoration of spawning and habitats, their inventory and maintenance, the opening of fish migration routes and the restocking of fish for the purpose of species protection and restocking.</li> <li>• The prohibition on introduction of alien species will be continued and, wherever possible, more fishing and exploitation at sea and other appropriate measures in inland waters will be encouraged to limit the numbers of wild alien species.</li> </ul>

	The Audit team considers that the publication of the Fisheries Development Plan fully achieves the Year 2 milestone.
Status	This condition is considered to be 'on target', as the second milestone is met.
Additional information	None

Table 14. Condition 9 (UoCs 1 and 2) – New at Year 1 Audit

Performance Indicator	<b>2.3.2</b> <b>Slb: Management strategy in place (alternative)</b> <b>Slc: Management strategy evaluation</b>
Score	65
Justification	<p>The prohibition of fishing within 500 m of river mouths and less than 1 km from shore is considered likely to work to ensure the fishery does not hinder the recovery of black-throated diver as an ETP species, based on plausible argument; However, gillnets and trapnets do present some risk to black-throated diver because they operate during periods when the birds may be found on the lake. It is not possible to say that there is a strategy in place for ETP species, in particular because there appears to be no general requirement to report captures of ETP species, such that information on interactions is anecdotal, only. In the absence of any data on captures (or lack of captures), it is also not possible to say that there is an objective basis for confidence that the measures/strategy will work.</p>
Condition	<p>By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Slb and Slc are met, specifically through demonstrating the following:</p> <p>Slb: <i>"There is a strategy in place that is expected to ensure the UoA does not hinder the recovery of ETP species."</i></p> <p>Slc: <i>"There is an objective basis for confidence that the strategy will work, based on information directly about the fishery and/or the species involved."</i></p> <p>We note that the timeline allows for this new condition to be met by the end of the five-year certification period for the Lake Peipus Perch and Pike-Perch Fishery (nominally 4 years after the Year 1 audit). However, the Year 1 surveillance audit was held approximately 4.5 months after the certification anniversary. As such, the timeline for this condition actually allows only approximately 3.5 years for the Condition to be met.</p>
Milestones	<p><u>Year 1:</u></p> <ul style="list-style-type: none"> <li>• Conduct a review of the evidence base for interactions between the Estonian Lake Peipus Fishery and ETP bird species.</li> <li>• Develop a plan to implement a strategy to manage impacts on ETP bird species, paying particular attention to the MSC definition of a 'strategy' (Table SA8, MSC 2014).</li> <li>• Conduct and present a preliminary analysis to determine if the proposed strategy will work.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Year 2:</u> If necessary, refine the strategy to manage impacts on ETP bird species based on the preliminary analysis presented at Year 1.</p> <ul style="list-style-type: none"> <li>• Implement the plan as designed in Year 1 / refined in Year 2.</li> <li>• Update the Audit Team as to progress of implementation.</li> <li>• Resulting score = 65.</li> </ul> <p><u>Years 3:</u></p>



		<ul style="list-style-type: none"> <li>Continue implementing the plan as designed in Year 1 / refined in Year 2.</li> <li>Present initial results from the implementation of the strategy.</li> <li>Resulting score = 65.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>Demonstrate that the SG80 requirements of SIb and SIc are met, such that there is a strategy to manage ETP bird species in place, and that there is an objective basis for confidence that it will work.</li> <li>Resulting score = 80 (for SIb and SIc). It is noted that if this Condition is met but Conditions 5, 6 and 10 are not met then the resulting score for PI 2.3.2 overall will still be &lt;80</li> </ul>
Client Action Plan		<p><u>Year 1:</u></p> <p>Develop a plan to implement a strategy to manage the effects of fisheries on black-throat diver. To collect an available information on the interaction of perch and pikeperch gillnet and trapnet fishing with black throat diver. Conduct a preliminary analysis to determine if the proposed strategy will work.</p> <p><u>Year 2:</u></p> <p>Update, if necessary, the strategy of management of effects of fisheries on black-throat diver, based on a preliminary analysis presented in the 1st year.</p> <p>Implementation of the plan developed in the 1st year / updated in the 2nd year.</p> <p><u>Year 3:</u></p> <p>Continue the implementation of the plan developed in the 1st year / updated in the 2nd year. Presentation to the audit team of a summary of the results obtained from the implementation of the strategy.</p> <p><u>Year 4:</u></p> <p>Prove that there is a strategy to control black-throat diver in place, and that there is an objective basis for ensuring that it will work.</p>
Consultation condition	on	A Letter of Support from the Ministry of Environment of Estonia was provided at the Year 1 audit.
Progress on Condition (Year 1)		This Condition was set at the Year 1 audit, through harmonising with the Russian and Estonian Lake Peipus Fishery ( <a href="https://fisheries.msc.org/en/fisheries/russian-lake-peipus-perch-and-pike-perch/@@view">https://fisheries.msc.org/en/fisheries/russian-lake-peipus-perch-and-pike-perch/@@view</a> ). Hence, progress at this Year 2 audit is for the first year of Condition 9 being set, only.
Progress on Condition (Year 2)		<p>For black-throated diver there are several things to report for the 2019 year.</p> <ol style="list-style-type: none"> <li>As mentioned in the update for Condition 1, Logi-F has elaborated a questionnaire survey of commercial and recreational fishermen, to ask about levels of IUU fishing but also to ask about catches of ETP species. The survey started at March 2019 and by June 2019 the questionnaire was finalised. Altogether 42 respondents were involved in a questionnaire survey including both professional and recreational fishermen. Data collected on the ETP species is currently being worked up (D.Lajus, pers. comm.).</li> <li>A new study has been initiated through the Fisheries information Centre, to assess the impact of current fishing activity and different gears on ETP species within Lake Peipus. Information on ETP species will be collected through surveys of fishermen and fishing companies, through undertaking experimental fishing, and from detailed commercial fisheries reporting (by a group of willing fishermen). In addition, options to release ETP species without harm will be reviewed, and recommendations made for methods to minimize impacts of commercial fishing on ETP species. The Audit Team was provided with a project proposal, and confirmation that the study has been funded (T. Armulik, Fisheries Information Centre, pers. comm.).</li> </ol>

	Together, these studies demonstrate clear progress in the approach to black-throated diver that is sufficient to meet the requirements of Year 1 milestone (noting the conditions was set in Year 1 of the certification, so Year 2 of the certification is Year 1 of this condition).
Status	This condition is considered to be 'on target', as the second milestone is met.
Additional information	None

Table 15. Condition 10

Performance Indicator	<b>2.3.2</b> <b>Sle: Review of alternative measures to minimize mortality of ETP species</b>
Score	65
Justification	It is not clear that there is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species (black-throated diver) and that they are implemented as appropriate.
Condition	<p>By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Sle is met, specifically through demonstrating the following:</p> <p><i>Sle: "There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and they are implemented as appropriate."</i></p> <p>We note that the timeline allows for this new condition to be met by the end of the five-year certification period for the Lake Peipus Perch and Pike-Perch Fishery (nominally 4 years after the Year 1 audit). However, the Year 1 surveillance audit was held approximately 4.5 months after the certification anniversary. As such, the timeline for this condition actually allows only approximately 3.5 years for the Condition to be met.</p>
Milestones	<p><u>Year 1:</u></p> <ul style="list-style-type: none"> <li>Develop a plan to conduct regular reviews of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species, paying particular attention to the MSC definition of 'regular' (SA3.5.3.2, MSC 2014).</li> <li>Resulting score = 65.</li> </ul> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>Implement the plan as designed in Year 1.</li> <li>Update the Audit Team as to progress of implementation.</li> <li>Resulting score = 65.</li> </ul> <p><u>Years 3:</u></p> <ul style="list-style-type: none"> <li>Continue implementing the plan as designed in Year 1.</li> <li>Update the Audit Team as to progress of implementation.</li> <li>Resulting score = 65.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>Demonstrate that the SG80 requirements of Sle are met, such that 'regular' reviews are undertaken, and that any measures are <u>implemented as appropriate</u>.</li> <li>Resulting score = 80 (for Sle). It is noted that if this Condition is met but Conditions 5, 6 and 9 are not met then the resulting score for PI 2.3.2 overall will still be &lt;80</li> </ul>
Client Action Plan	<u>Year 1.</u>

		<p>Develop a plan for conducting regular reviews of the potential effectiveness and practicality of alternative measures to minimize mortality of black-throat diver associated with the UoA.</p> <p><u>Year 2:</u></p> <p>Implementation of the plan developed in the 1st year.</p> <p><u>Year 3:</u></p> <p>Continuation of the implementation of the plan developed in the 1st year. Discussion with stakeholders of the recipient and the format for providing data on the effectiveness and practicality of measures to minimize the mortality of black-throat diver.</p> <p><u>Year 4:</u></p> <p>Prove that the SG80 SId requirement is met, so that a review will be conducted and the process will provide for regular reviews. If there are potentially appropriate measures, they will be implemented. If there is a potentially useful alternative approach available to reducing bycatch that is not implemented, the review will include analysis of why it is not 'appropriate'.</p>
Consultation condition	on	A Letter of Support from the Ministry of Environment of Estonia was provided at the Year 1 audit.
Progress on Condition (Year 1)		This Condition was set at the Year 1 audit, through harmonising with the Russian and Estonian Lake Peipus Fishery ( <a href="https://fisheries.msc.org/en/fisheries/russian-lake-peipus-perch-and-pike-perch/@@view">https://fisheries.msc.org/en/fisheries/russian-lake-peipus-perch-and-pike-perch/@@view</a> ). Hence, progress at this Year 2 audit is for the first year of Condition 10 being set, only.
Progress on Condition (Year 2)		<p>For black-throated diver there is a key item to report for the 2019 year.</p> <p>1) A new study has been initiated through the Fisheries information Centre, to assess the impact of current fishing activity and different gears on ETP species within Lake Peipus. Information on ETP species will be collected through surveys of fishermen and fishing companies, through undertaking experimental fishing, and from detailed commercial fisheries reporting (by a group of willing fishermen). In addition, options to release ETP species without harm will be reviewed, and recommendations made for methods to minimize impacts of commercial fishing on ETP species. The Audit Team was provided with a project proposal, and confirmation that the study has been funded (T. Armulik, Fisheries Information Centre, pers. comm.).</p> <p>This study demonstrate clear progress in the approach to black-throated diver that is sufficient to meet the requirements of Year 1 milestone (noting the conditions was set in Year 1 of the certification, so Year 2 of the certification is Year 1 of this condition).</p>
Status		This condition is considered to be 'on target', as the second milestone is met.
Additional information		None

Table 16. Condition 11

Performance Indicator	<p><b>2.3.3</b></p> <p><b>SIb: Management strategy in place (alternative)</b></p> <p><b>SIc: Management strategy evaluation</b></p>
Score	65

Justification	There is no quantitative information available that is adequate to assess the UoA related mortality on black-throated diver, and information is not adequate to measure trends and support a strategy to manage impacts on ETP species.
Condition	<p>By the Year 4 surveillance audit, the client is required to demonstrate that the SG80 requirement of Sla and Slb are met, specifically through demonstrating the following:</p> <p>Sla: <i>“Some quantitative information is adequate to assess the UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of the ETP species.”</i></p> <p>Slb: <i>“Information is adequate to measure trends and support a strategy to manage impacts on ETP species.”</i></p> <p>We note that the timeline allows for this new condition to be met by the end of the five-year certification period for the Lake Peipus Perch and Pike-Perch Fishery (nominally 4 years after the Year 1 audit). However, the Year 1 surveillance audit was held approximately 4.5 months after the certification anniversary. As such, the timeline for this condition actually allows only approximately 3.5 years for the Condition to be met.</p>
Milestones	<p><u>Year 1:</u></p> <ul style="list-style-type: none"> <li>• Design a scientifically valid approach to address the condition by collecting quantitative data on ETP species captures and mortalities in the fishery, and measure trends.</li> <li>• Resulting score = 60.</li> </ul> <p><u>Year 2:</u></p> <ul style="list-style-type: none"> <li>• Implement the plan as designed in Year 1.</li> <li>• Update the Audit Team as to progress of implementation.</li> <li>• Resulting score = 60</li> </ul> <p><u>Years 3:</u></p> <ul style="list-style-type: none"> <li>• Continue implementing the plan as designed in Year 1.</li> <li>• Present initial results from the implementation of the strategy.</li> <li>• Resulting score = 60.</li> </ul> <p><u>Year 4:</u></p> <ul style="list-style-type: none"> <li>• Demonstrate that the SG80 requirements of Sla are met, such that there is some quantitative information that is adequate to assess UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of ETP bird species, and that information is adequate to measure trends and support a strategy to manage impacts.</li> <li>• Resulting score = 80. It is noted that if this Condition is met but Condition 7 is not met then the resulting score for PI 2.3.3 overall will still be &lt;80</li> </ul>
Client Action Plan	<p><u>Year 1:</u></p> <p>Development of a scientifically based plan to collect quantitative data on the catch of the black-throated diver and their mortality during fishing.</p> <p><u>Year 2:</u></p> <p>Implementation of the plan developed in the 1st year.</p> <p><u>Year 3:</u></p> <p>Continuation of the implementation of the plan developed in the 1st year and summarising the results from the previous years.</p> <p><u>Year 4:</u></p> <p>Analyse the available mortality data of black-throated diver associated with perch and pikeperch fishing in a reservoir. Prove that requirements of SG80 Sla are met in such a way that quantitative information, used to estimate mortality and impact associated with the UoA and to determine whether the UoA could be a threat to protect and restore black-throated diver</p>

		will be sufficient, and that the information is adequate to measure trends and support impact management strategies.
Consultation condition	on	A Letter of Support from the Ministry of Environment of Estonia was provided at the Year 1 audit.
Progress on Condition (Year 1)		This Condition was set at the Year 1 audit, through harmonising with the Russian and Estonian Lake Peipus Fishery ( <a href="https://fisheries.msc.org/en/fisheries/russian-lake-peipus-perch-and-pike-perch/@@view">https://fisheries.msc.org/en/fisheries/russian-lake-peipus-perch-and-pike-perch/@@view</a> ). Hence, progress at this Year 2 audit is for the first year of Condition 9 being set, only.
Progress on Condition (Year 2)		<p>For black-throated diver there are several things to report for the 2019 year.</p> <ol style="list-style-type: none"> <li>1) As mentioned in the update for Condition 1, Logi-F has elaborated a questionnaire survey of commercial and recreational fishermen, to ask about levels of IUU fishing but also to ask about catches of ETP species. The survey started at March 2019 and by June 2019 the questionnaire was finalised. Altogether 42 respondents were involved in a questionnaire survey including both professional and recreational fishermen. Data collected on the ETP species is currently being worked up (D.Lajus, pers. comm.).</li> <li>2) A new study has been initiated through the Fisheries information Centre, to assess the impact of current fishing activity and different gears on ETP species within Lake Peipus. Information on ETP species will be collected through surveys of fishermen and fishing companies, through undertaking experimental fishing, and from detailed commercial fisheries reporting (by a group of willing fishermen). In addition, options to release ETP species without harm will be reviewed, and recommendations made for methods to minimize impacts of commercial fishing on ETP species. The Audit Team was provided with a project proposal, and confirmation that the study has been funded (T. Armulik, Fisheries Information Centre, pers. comm.).</li> </ol> <p>Together, these studies demonstrate clear progress in the approach to black-throated diver that is sufficient to meet the requirements of Year 1 milestone (noting the conditions was set in Year 1 of the certification, so Year 2 of the certification is Year 1 of this condition).</p>
Status		This condition is considered to be 'on target', as the second milestone is met.
Additional information		None

## **4 Conclusion**

It is concluded that there were no changes in the fishery in the last year which are material to the ongoing certification of the Lake Peipus Perch and Pike-Perch Fishery.

Progress against all conditions is also 'on target' after several new projects were started and initial results of existing projects were presented.

At this 2<sup>nd</sup> annual surveillance audit, it is therefore concluded that the Lake Peipus Perch and Pike-perch Fishery continues to meet MSC requirements and should remain certified.

## 5 Appendices

### 5.1 References

- MSC (2014).** MSC Fisheries Certification Requirements and Guidance, version 2.0, 1<sup>st</sup> October 2014. Marine Stewardship Council, London, 528 pp.
- MSC (2018).** MSC fisheries certification process, v.2.1, 31<sup>st</sup> August 2018. Marine Stewardship Council, London, 189 pp.
- Roll, G., Kosk, A., Alexeeva, N. & P. Unt (2006).** Lake Peipsi/Chudskoe, experience and lessons learned brief. Hamilton, ON: World Bank, Third World Water Forum, 2006.
- ERFC (2019).** Protocol of the forty-fifth session of the Intergovernmental Commission on Fisheries in the framework of the agreement between the Government of the Russian Federation and the Government of the Republic of Estonia on cooperation in the field of conservation and use of fish stocks in Lakes Peipsi, Lämmijärv and Pihkva from May 4, 1994. 25-28 November 2019, St. Petersburg, Russia. 14 pp. (with 6 supplements). [Протокол сорок пятой сессии Межправительственной комиссии по рыболовству в рамках соглашения между Правительством Российской Федерации и Правительством Эстонской Республики о сотрудничестве в области сохранения и использования рыбных запасов в Чудском, Теплом и Псковском озерах от 4 мая 1994 года. 25-28 ноября 2019 г., г. Санкт-Петербург, Россия. 14 с. (с 6 приложениями).] [https://www.envir.ee/sites/default/files/harkal19\\_aruane\\_logoga.pdf](https://www.envir.ee/sites/default/files/harkal19_aruane_logoga.pdf)

## 5.3 Evaluation processes and techniques

### 5.3.1 Site visits

The following meetings were held during the Year 2 audit site visit (Table 17).

**Table 17. Stakeholder consultation & meetings**

Date	Attendees	Topics discussed
12 <sup>th</sup> Feb 2020	<ul style="list-style-type: none"> <li>• Rob Blyth-Skyrme (Marine Certification)</li> <li>• Dmitry Sendek (Marine Certification)</li> <li>• Anya Tischenko (Marine Certification)</li> <li>• Dmitry Lajus (Client: Logi-F)</li> </ul>	<ul style="list-style-type: none"> <li>• Procedures</li> <li>• Confirmation of site visit plan</li> <li>• Changes in key staff</li> <li>• Changes in the environment of Lake Peipus</li> <li>• Changes in the fishery</li> <li>• Progress against Conditions</li> </ul>
12 <sup>th</sup> Feb 2020	<ul style="list-style-type: none"> <li>• Rob Blyth-Skyrme (Marine Certification)</li> <li>• Dmitry Sendek (Marine Certification)</li> <li>• Anya Tischenko (Marine Certification)</li> <li>• Dmitry Lajus (Client: Logi-F)</li> <li>• Liivika Naks (Ministry of Environment)</li> </ul>	<ul style="list-style-type: none"> <li>• Procedures</li> <li>• Changes in key staff</li> <li>• Changes in Regulations or the management system</li> <li>• Future plans for management</li> <li>• Changes in the fishery</li> <li>• Progress against Conditions</li> </ul>
12 <sup>th</sup> Feb 2020	<ul style="list-style-type: none"> <li>• Rob Blyth-Skyrme (Marine Certification)</li> <li>• Dmitry Sendek (Marine Certification)</li> <li>• Anya Tischenko (Marine Certification)</li> <li>• Dmitry Lajus (Client: Logi-F)</li> <li>• Elor Sepp (Estonian Marine Institute)</li> </ul>	<ul style="list-style-type: none"> <li>• Changes in key staff</li> <li>• Changes in Regulations or the management system</li> <li>• Changes in the environment and stocks of Lake Peipus</li> <li>• Performance of the fishery</li> <li>• Progress against Conditions</li> <li>• Projects and research of relevance to the fishery</li> </ul>
13 <sup>th</sup> Feb 2020	<ul style="list-style-type: none"> <li>• Rob Blyth-Skyrme (Marine Certification)</li> <li>• Dmitry Sendek (Marine Certification)</li> <li>• Anya Tischenko (Marine Certification)</li> <li>• Olgert Margus (Client: Logi-F)</li> <li>• Dmitry Lajus (Client: Logi-F)</li> <li>• Margus Narusing (Fisherman)</li> </ul>	<ul style="list-style-type: none"> <li>• Changes in the environment and stocks of Lake Peipus</li> <li>• Changes in the fishery</li> <li>• ETP species interactions</li> </ul>
13 <sup>th</sup> Feb 2020	<ul style="list-style-type: none"> <li>• Rob Blyth-Skyrme (Marine Certification)</li> <li>• Dmitry Sendek (Marine Certification)</li> <li>• Anya Tischenko (Marine Certification)</li> <li>• Olgert Margus (Client: Logi-F)</li> <li>• Dmitry Lajus (Client: Logi-F)</li> <li>• Toomas Armulik (Fisheries Information Center)</li> <li>• Redik Eschbaum (Marine Research Institute)</li> </ul>	<ul style="list-style-type: none"> <li>• Roles of the FIC and MRI.</li> <li>• Changes in the environment and stocks of Lake Peipus</li> <li>• Progress against Conditions</li> <li>• Projects and research of relevance to the fishery</li> </ul>

## 5.4 Stakeholder input

No stakeholder submissions were received at this Year 2 audit.



## 5.5 Harmonised fishery assessments

The following tables provide information on overlapping fisheries and the process that was undertaken to ensure the outcomes are harmonised where relevant (see FCPv.2.1 Annex PB).

**Table 18. List of overlapping fisheries and PIs to harmonise**

Fishery name	Certification status and date	Performance Indicators to harmonise
Russian Lake Peipus Perch and Pike-perch Fishery ( <a href="https://fisheries.msc.org/en/fisheries/russian-lake-peipus-perch-and-pike-perch/@@view">https://fisheries.msc.org/en/fisheries/russian-lake-peipus-perch-and-pike-perch/@@view</a> )	Certified (2 <sup>nd</sup> April 2019)	<ul style="list-style-type: none"> <li>• All Principle 1</li> <li>• All Principle 2 (except for mutnik gears)</li> <li>• Principle 3 (Governance and Policy PIs)</li> </ul>
Russian and Estonian Lake Peipus Perch and Pike-perch Fishery ( <a href="https://fisheries.msc.org/en/fisheries/russian-and-estonian-lake-peipus-perch-and-pike-perch/@@view">https://fisheries.msc.org/en/fisheries/russian-and-estonian-lake-peipus-perch-and-pike-perch/@@view</a> )	Certified (13 <sup>th</sup> Jan 2020)	<ul style="list-style-type: none"> <li>• All Principle 1</li> <li>• All Principle 2 (except for mutnik gears)</li> <li>• Principle 3 (Governance and Policy PIs)</li> </ul>

**Table 19. Overlapping fisheries harmonisation**

Supporting information	
<p>During the site visit for the 1<sup>st</sup> annual surveillance audit, a Skype call was held between the Estonian Lake Peipus Audit Team and Dr. Andy Hough, Lead Assessor for the Russian and Estonian Lake Peipus Fishery (see note of meeting, Appendix 4, of the 1<sup>st</sup> annual surveillance audit, here: <a href="https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@view">https://fisheries.msc.org/en/fisheries/lake-peipus-perch-and-pike-perch/@@view</a>). It was noted that there is a condition on the Russian Lake Peipus Fishery on black-throated diver (<i>Gavia arctica</i>), a bird species which is regarded as being ETP for the Russian fishery because it is included on the Russian Red List, and which is understood to interact occasionally with the Russian fishery.</p> <p>While there was no information presented during the initial assessment of the Estonian fishery to suggest that there are interactions between the Estonian fishery and <i>Gavia arctica</i>, the harmonisation discussion indicated that it should nevertheless be considered as an ETP species for the Estonian fishery. As such, PIs 2.3.1-2.3.3 were rescored in line with the scoring for the Russian Lake Peipus Fishery and conditions on <i>Gavia arctica</i> were added last year (see the 1<sup>st</sup> annual audit report).</p> <p>Other outcomes are listed in the meeting outcome box, below.</p>	
Was either FCP v2.1 Annex PB1.3.3.4 or PB1.3.4.5 applied when harmonising?	No
Date of harmonisation meeting	27 / 02 / 2019
If applicable, describe the meeting outcome	
<p>The outcome of the harmonisation meeting was provided in the 1<sup>st</sup> annual surveillance report for the Estonian Lake Peipus Perch and Pike-Perch Fishery; the harmonisation determined the following:</p> <ul style="list-style-type: none"> <li>• P1 conditions will be harmonised for all UoAs.</li> <li>• P2 conditions on wels and asp are expected to be harmonised for Estonian UoAs, and conditions on black-throated diver are expected to be harmonised for all UoAs.</li> <li>• P3 conditions are expected to be harmonised for Russian and Estonian UoAs separately.</li> </ul>	