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Finnish Environment Institute

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Finland’s response to the notification in accordance with Article 10 of the Protocol on Strategic Environmental Assessment in a Transboundary Context regarding the planning programme and main challenges for the Tana, Neiden and Pasvik River Basin Management Plan

The Finnish Environment Institute acknowledges that Finland has received the notification from Norway on 4 February 2025 in accordance with Article 10 of the Protocol on Strategic Environmental Assessment in a Transboundary Context (SEA Protocol) regarding the planning programme and main challenges for the Tana, Neiden and Pasvik River Basin Management Plan.

The Tana, Neiden and Pasvik River Basin Management Plan for 2028-2033 is being updated in Norway. The updating of the River Basin Management Plan starts with a consultation on proposals for a planning programme and main challenges. The planning programme will be used to prepare a draft River Basin Management Plan and to carry out a Strategic Environmental Assessment (SEA).

Consultation in Finland

In accordance with Section 10 a (912/2022), Subsection 1 of the Finnish Act on the Assessment of the Effects of Certain Plans and Programmes on the Environment (252/2017), the Finnish Environment Institute is responsible for the information and consultation tasks related to the environmental assessment of the plan or programme of the other state. The Norwegian Environment Agency (Miljødirektoratet) requested Finland to submit any comments from the relevant parties on the consultation documents.

The public and the authorities were given the opportunity to comment on the consultation documents from 7 March to 4 June 2025, which were available on the website of Finland's environmental administration and on a platform by Ministry of Justice for requesting and submitting statements electronically (lausuntopalvelu.fi). Statements were also asked from relevant stakeholders.

Remarks received during the consultation

The Finnish Environment Institute has prepared an English summary of the ten (10) statements received in Finland. The original statements in Finnish, which are enclosed to this letter, need to be examined and taken into consideration in their entirety.

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Ministry of Agriculture and Forestry

The Ministry of Agriculture and Forestry is grateful for the opportunity to comment on the planning programme and the main challenges for the update of the Norwegian Tana, Neiden, Pasvik River Basin Management Plan for 2028-2033. The Ministry is also grateful for the translation of the documents in Finnish. The planning programme, which is the basis for the update of the River Basin Management Plan and the action programme, is clearly structured and describes the key points for the update. The document on the main challenges adequately describes the pressures facing the river basin.

In a shared international river basin management area, cooperation between the Norwegian and Finnish authorities is important, even though the countries prepare their own River Basin Management Plans. Norway and Finland have a long tradition of cooperation in the management of transboundary waters. In Finland, the Centre for Economic Development, Transport and the Environment for Lapland (ELY Centre) is the competent authority for the river basin management area, which cooperates with the Tromsø and Finnmark County regional councils. Increased cooperation in water management has improved the harmonisation of assessment methods and environmental objectives. The planning programme could have described the changes in the planning process compared to the previous planning period in more detail.

The planning programme describes well the preparation of the river basin management plan and its schedule. The process is similar to the one in Finland, although the schedule for consultations differs and may therefore pose coordination challenges.

Adaptation to climate change is identified in the key challenges document, as is the need to distinguish the impacts of climate change on water bodies and other pressures from other human-induced impacts. In adapting to climate change and monitoring its impacts, it is important to cooperate across borders beyond the scope of water management.

The rivers Tana and Neiden are important rivers for Atlantic salmon reproduction. The spreading of alien species and fish diseases into the waters flowing into the Arctic Ocean is a serious risk that requires measures to reduce. The pink salmon is identified as an alien species in section 4.2. of the main challenges document. The description of impacts should also include a sentence about the possibility of the removal measures for pink salmon causing harm to the native migratory fish species in the water body, either in the form of bycatch mortality or delayed migration and consequent reduction in energy levels. *The Status of the Tana/Teno river salmon populations in 2024 report* (p. 96) has indicated that in a long river like the Tana River, even a slight delay in smolt migration can lead to higher mortality as the smolt move to the sea. In 2023, smolt survival at sea collapsed compared to previous years. One reason may be a fish trap for pink salmon, which was found to have delayed salmon migration upstream and downstream.

The transport of nutrients from the sea to the river by pink salmon has also been highlighted as a risk factor. In barren, nutrient-poor rivers such as the Tana River, the transport of nutrients into the river is not necessarily only a negative matter. It can improve the river's productive capacity, as the heavy fishing of migratory fish and the resulting depletion of nutrients may have weakened growth conditions.

Natural Resource Institute Finland (Luke)

i. Planning programme

The draft of the River Basin Management Plan covers the key themes comprehensively, but the

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content and scope of the proposed studies are described in a superficial manner and the need to update the plan remains unclear. To assess the effectiveness of the plan reliably, it is important to set out the need for studies in an unambiguous and concrete manner.

- Land use and the environmental load

There are increasing pressures on the area, particularly from tourism and the growth of regional defense activities. This development will increase the pressure on wastewater systems, traffic, and the stress on the landscape and water bodies. The capacity of municipalities to respond to these challenges varies, and the cumulative effects of different factors can pose a significant threat in particularly sensitive (sub)arctic environments. Identifying and managing these impacts requires a comprehensive approach.

- Strengthening the knowledge base

Expanding the existing knowledge base will require significant additional resources. It is therefore important to make efficient use of existing knowledge and to promote the effective use of scenario and modelling methods. This will allow impact assessments to be carried out in areas where data are scarce.

- Strengthening cooperation

The plan could highlight well-functioning and sustained close cooperation between research institutions in the production of data and the coordination of monitoring methods as a good example. The use of collaborative research data in transboundary decision-making is facilitated, and the good practices and cooperation models learned from this should be identified and adopted more widely in cooperation between authorities.

- A comprehensive perspective and migratory fish stocks

Water management must extend from the drainage basin to the coast and the sea. This is particularly important for migratory fish stocks, which need all aquatic ecosystems during their life cycle. It is important to recognise that fishing is not the only threat to migratory fish, but that the impacts of human activity are widespread throughout the life cycle. In transboundary waters, transboundary measures and a common understanding are needed to rebuild migratory fish stocks.

ii. Main challenges

- Alien species

When other important factors, such as hydropower production and aquaculture, are taken into account, the identification of alien species as the main threat to the ecological status of the river basin seems exaggerated. Such a claim requires clear and comparable evidence of the scale of the impacts, which is not available in practice. The pink salmon (*Oncorhynchus gorbuscha*) is a significant alien species issue in Norwegian river basins. However, this species is not present in the dammed Pasvik River, and in the Neiden River its spread will be significantly limited by the Borisoglebsky if the removal of pink salmon continues in the fishway that bypasses the river. Pink salmon are a significant factor in the Tana River, but the dam structure built to prevent their migration also has a major potential impact, as it may pose a risk to other native migratory fish. Pink salmon and its potential impacts are described extensively, but only in general terms, and the significance of the issue for this river basin is not considered or assessed at all.

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The vendace (*Coregonus albula*) and other alien species in the Pasvik River basin are already quite old and their impact is not expected to increase in the future. The minnow (*Phoxinus phoxinus*) is not an alien species in this river basin but belongs to the native fish species. Such errors in basic data can undermine the credibility of the plan and signal the need for more detailed biological expertise.

- Hydropower

The section on the impact of hydropower remains general and does not provide enough concrete information. For example, the reference to hydropower measures as having the "sixth largest impact" remains disjointed, without specifying which impacts are being referred to and what these measures are.

In the Pasvik River basin, hydropower impacts are significant and need to be considered in detail, especially for migratory fish habitats and migration routes. Clearer proposals for measures and impact assessments are required.

- Tourism and recreation

Tourism and recreational impacts are addressed in a limited way, focusing mainly on fisheries and the Tana River fishing restrictions. This does not cover the full extent of the phenomenon. The increase in tourism is reflected in increased snowmobiling and boating, waste management and sanitation challenges, littering and disturbance of sensitive natural sites, etc. These factors affect the condition of water bodies and, in turn, fish stocks and other parts of the aquatic ecosystem. The impacts of tourism should be recognised as a whole and not just as part of urbanisation or fishing. The role of tourism in impacts such as wastewater, land use, invasive species, disease and transport (which remain unknown here) should be identified (Figure 9. Main challenges).

The main challenges have been largely identified correctly, but the presentation of the document is imprecise in places and the assessment of the significance of the impacts has not been justified. It is important that the criteria for assessing impacts are presented in a transparent way so that a consistent comparison can be made between the impacts of different activities. Tourism and its multiple impacts should be considered as a whole, beyond the recreational fishing aspect.

iii. Summary

Natural Resources Institute Finland (Luke) considers it important to clarify the needs for analysis in the Norwegian River Basin Planning Programme for the Tana, Neiden and Pasvik River and to present the criteria for impact assessment in a transparent way. In particular, the statement stresses the need to consider the overall environmental impacts of increasing tourism and other transport, the need to strengthen the knowledge base, the importance of cooperative research and a transboundary approach to the protection of migratory fish stocks. While the impact of alien species is certainly significant at a regional level, it is less significant in relation to other threats, such as hydropower and other human impacts. The impacts of tourism on aquatic ecosystems should be more widely recognised and addressed as a whole. Overall, the main challenges have been identified in the right direction, but the presentation needs clarification.

The Regional Council of Lapland

Finnmark County (Finnmark fylkeskommune), Norway, is updating the River Basin Management Plan for the Tana, Neiden and Pasvik River basins for 2028-2033. The purpose of the regional river basin management planning is to promote the protection and sustainable use of water resources in a comprehensive manner. The main objective is to achieve good status for all waters.

The update of the River Basin Management Plan is based on a planning programme and a main challenges document, which aims to provide an overview of the state of the environment and human impacts on the aquatic environment in the river basin area. Based on the planning programme a draft of the River Basin Management Plan and its action programme are prepared, and an environmental assessment is carried out. Consultation on these will take place in 2026.

The Tana, Neiden and Pasvik River basin management area is defined as an international river basin management area. This means that the river basin authority must cooperate with the competent authorities of neighbouring countries with the aim of introducing common solutions so that the desired environmental status can be achieved throughout the river basin. Part of the Tana, the Neiden and the Uutuanjoki (Munkelva) rivers are located in Finland. Parts of the drainage basin of the Pasvik River and Jakobselva rivers are in Russia. Norway's share of the river basin management area is about 20 000 km2.

The planning programme has identified land use and consideration of the aquatic environment, the knowledge base of the aquatic environment, restoration measures, community and user interests, and cooperation in transboundary aquatic environments as issues requiring greater attention during the planning period. In addition, particular attention has been paid to climate change and adaptation to a changing climate.

Impacts on the river basin have been identified as long-distance pollution, alien species and diseases, hydropower, tourism and recreation, transport, wastewater, urbanisation, industry, agriculture, plastic pollution and climate change. Increased energy production, oil and gas discoveries, marine agriculture and mining have been identified as trends in society that may lead to new or changed impacts on the aquatic environment, with implications for where and when environmental objectives can be met.

Relationship to regional planning in Lapland

Lapland's general land use is currently defined in the Northern Lapland Regional Land Use Plan 2040 and the regional plans of Rovaniemi and Eastern Lapland, Fell Lapland and Western Lapland. Among the phased regional plans in force are the wind energy regional plan for the Lapland Sea and coastal area, the Rovaniemi phased regional plan, the partial revocation of the nuclear regional plan for the Kemi-Tornio area and partly the nuclear regional plan for the Kemi-Tornio area, the Sokli mining project phased regional plan and the Suhanko mining project phased regional plan.

In Lapland's land use planning, water management is considered to the extent required by the land use plan's function as a general plan, paying attention to the specific needs arising from the conditions in the region. In Lapland's most recent sub-regional overall regional plans, efforts have been made to take water management objectives into account as part of the description of the status of the area and the setting of objectives, as well as by assessing the impact of the regional plan on surface and groundwater and its relation to water management planning objectives. The regional plan and its planning provisions guide more detailed planning, such as zoning planning. The role of regional planning in Finland reconciles different interests, with permits for individual projects being decided through other statutory authorisation procedures.

The Neiden and Tana rivers in the salmon distribution area and their tributaries are designated as valuable water bodies (6584) in the Northern Lapland Regional Land Use Plan 2040. The designation is based on the unique conservation biology of the salmon and trout populations in the water bodies indicated in the plan, both in Finland and globally. North Atlantic salmon stocks have

long been in decline in both Europe and North America. The reason for the designation is that the river basin is of value for nationally endangered species, biodiversity conservation and fishing. The development principle is to safeguard the special natural and fishing values of the water body.

The designation is accompanied by a planning provision "The design and use of the river basin environment must ensure that measures affecting the status of water bodies do not impair the special natural and fishing values of the water body".

On December 2nd, 2024, the Board of the Regional Council of Lapland decided to launch the preparation of the Lapland Security and Transport Phased Regional Plan 2050, to announce the launch of the Regional Plan and to open the participation and assessment plan for public consultation. The 2050 Lapland Security and Transport Phased Regional Plan (Lapplands regionale faseplan for sikkerhet og trafikk 2050) was announced on January 24th, 2025. The aim of the phased regional plan is to update the existing regional plans in view of the geopolitical situation and to respond to changes in the operating environment in terms of land use planning, particularly regarding the transport system and safety.

Other needs that have emerged during the planning process may also be identified in the phased regional plan. In addition, the Regional Council of Lapland has three phased regional plans for mining projects pending.

The view of the Regional Council of Lapland

The Regional Council of Lapland is grateful for the opportunity to comment on the planning programme and the main challenges. The water bodies of the Tana, Neiden and Pasvik River basin management area are shared river basins between Finland and Norway, and it is important that river basin management planning is coordinated, and measures are harmonised across borders. It would be useful to clarify in the planning programme how the river basin management plans are to be coordinated between Finland and Norway and how the statements expressed in the international consultation will affect the River Basin Management Plan.

In the view of the Regional Council of Lapland, the consultation material has identified well the factors that currently affect the status of the waters, as well as societal developments that may affect the status of the aquatic environment in the future. In particular, the Council draws attention to the following issues:

- Pink salmon has been identified as an alien species in the consultation documents. The rivers Tana and Neiden are important Atlantic salmon reproduction rivers. North Atlantic salmon stocks have been in decline for a long time, both in Europe and North America. Many populations have been lost, and some are on the verge of extinction. The salmon in Tana River is the most diverse salmon stock in the world, but even there, several sub-stocks have declined dramatically. The Tana salmon has very high international conservation value. The salmon in the Neiden River also has international conservation value.

The Regional Council of Lapland emphasises that the Tana River salmon also has cultural, social and economic importance. For four summers in a row, salmon fishing has had to be restricted due to the poor state of salmon stocks in the Tana. The total ban on salmon fishing has had a negative impact on the local community and on the preservation of salmon-related traditions. Salmon fishing is also linked to important economic activities for municipalities, such as tourism. The Regional Council of Lapland calls for attention to be paid to the fact that both the rapid spread of pink salmon, an alien

species, and the efforts to control it could further impair the living conditions of Atlantic salmon in the Tana River.

- The Regional Council of Lapland wants to draw attention to the impact of sea farming on Atlantic salmon. The escape of farmed fish from farms poses a serious threat to the genetic heritage of Atlantic salmon. There is also a risk of parasites on salmon farmed in fish farms. For example, the salmon fluke (*Gyrodactylus salaris*) is a major threat to Atlantic and Arctic migratory salmon stocks and, if introduced into the Tana or Neiden River, would probably collapse their valuable Atlantic salmon stocks within a few years.

- The Finnish Lapland and the northern regions of Norway and their (aquatic) nature are particularly vulnerable to the effects of climate change due to their northern location and their biogeographical characteristics. The Arctic regions are warming about four times faster than the global average. The Regional Council of Lapland considers it a good starting point that climate change and adaptation to a changing climate have been considered in a comprehensive way in the consultation documents. The Regional Council of Lapland believes that the effects of climate change should also be addressed in more detail in the water management plans as part of the status assessment and the setting of environmental objectives.

- The Regional Council of Lapland wants to draw attention to the pressures arising from the need to mitigate climate change and the pressures arising from the need to secure material and energy self-sufficiency. Such pressures are well listed in the consultation documents. Further information is needed on the combined impacts of these projects on surface water and groundwater, and these should be considered in water management planning. A knowledge base on the impacts and carrying capacity of water bodies could greatly assist harmonisation in land-use planning, for example.

- According to the consultation documents, the accuracy of the environmental status of water bodies is, by far, medium to low. The Regional Council of Lapland emphasises the importance of clean water for security of supply, especially now that the northernmost parts of Europe are at the centre of geopolitical attention and encourages the acquisition of sufficient basic data for the implementation of water management and the importance of clean water for security of supply.

The Regional Council of Lapland has no other comments to make on the documents submitted.

The Sámi Parliament

The Finnish Environment Institute requests the statement of the Sámi Parliament on the Norwegian Environment Agency's preliminary notification on the planning programme and main challenges for the update of the River Basin Management Plan for the Tana, Neiden and Pasvik River basin management areas for 2028-2033. As part of the update, a strategic environmental assessment of the plan will be carried out. The purpose of regional river basin management planning is to promote the protection and sustainable use of aquatic environments in a comprehensive manner. The main objective is to achieve good status for all waters. The right of the Sámi people to maintain and develop their language and culture is guaranteed in the Finnish Constitution. Good water status is a prerequisite for the Sámi nature-based culture, and clean waters are also part of the Sámi cultural environment. Reindeer husbandry and fishing, which are traditional livelihoods and culture of the Sámi, are an essential part of their subsistence economy and food security. Clean waters enable reindeer husbandry based on natural pastures and are also essential for fishing in the arctic barren waters.

In the Sámi homeland area, natural waters are mainly classified as being in excellent condition. The

Ivalo River - Sotajoki area affected by gold mining is part of the main drainage basin of the Pasvik River and is classified as good status below excellent. Of the water bodies in the area, the Ivalo River area is affected by gold mining the Sotajoki, Palsinoja and Tolosjoki rivers, which flow into it. Lake Inari is regulated and is subject to point source pollution from urban wastewater treatment, for example. The drainage basins of the Tana River and Lake Inari cover a significant part of the Sámi homeland in the municipalities of Inari and Utsjoki. The Tana River with its tributaries is a water body of both cultural and economic importance for the Sámi. The same applies to Lake Inari and the rivers flowing into it.

The main water management issues in the Sámi homeland are ensuring an excellent and a good status for water and anticipating and mitigating any risks to this status. The impacts of water management measures also include the aspect of the realisation of the rights of the Sámi people. According to the environmental protection regulations for reindeer husbandry, activities must be organised in a such way that pollution of the environment can be prevented in advance. It is prohibited to feed reindeer in Class 1 groundwater areas or in the immediate vicinity of watercourse ice, also considering flood conditions.

The water impact risk of gold mining in the drainage basin of Lake Inari must be considered in the plan. Gold panning areas are exposed to leaching of soil material into nearby water bodies. The risk of water pollution is influenced by increased heavy rainfall, seasonal increases in rainfall and temperature fluctuations, together with the bare ground from the vegetation in the mining areas. In water management planning, the waters affected by gold panning in the surface water bodies of the Ivalo River basin should be maintained in at least good status. The drop from excellent to good status has already been a significant change for the barren cold waters. Assessments at the water body level are also based on rather limited data, which increases uncertainty about the adequacy of the mapping of the current ecological status, and thus the reliability of the assessment of the viability of fish stock habitats.

The impact of gold mining on water bodies is caused by structural changes in the riparian zone and riverbeds, which release fine sediment and soil metals into the water. This results in turbidity, warming and changes in water quality, siltation of the bottom and degradation of fish habitats. Statistically increased heavy rainfall and other phenomena associated with climate change increase the risks to migratory fish stocks in Lake Inari. Holders of mechanical gold panning permits are obliged to join a water monitoring programme. Sampling is carried out with the aim of avoiding flood waters. Impact monitoring samples are taken by the Gold Prospector's Association of Finnish Lapland twice a year in weeks 26-28 and another in weeks 31-33, with 23 monitoring sites in 2024. There is a clear need for an enhanced monitoring programme by an independent body in the area affected by mechanical gold mining. Monitoring should also consider the susceptibility of gold mining areas to leaching, floodwater situations and runoff after heavy rainfall, as higher leaching rates can be expected, especially in these situations.

The Sámi Parliament considers it important that the alien species pink salmon should be caught as freely as possible by Sámi, locals and tourists alike. Pink salmon is a good food fish for a certain period and there is potential for economic benefits to Finland from developing ways of exploiting it. Catching pink salmon contributes to the situation of Atlantic salmon and the less fish left to rot in the water, the less eutrophication of the Tana River.

Knowledge of the Sámi people, Sámi culture and the indigenous rights of the Sámi people should be required of the authority preparing the environmental assessment of the river basin management plan. The impacts on Sámi culture are closely related to the impacts on biodiversity.

The Finnish Wildlife Agency

The Finnish Wildlife Agency would like to point out that mink, an invasive alien species living around

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the water bodies in question, should be considered in the planning programme. The species may contribute to the impact on the fauna in the water bodies and the mink may pose a threat to local species and biodiversity. The mink population is unlikely to be particularly abundant along the waterways concerned at present, but according to the Finnish Wildlife Agency, mink is caught in all the water bodies in the programme.

In addition, the Finnish Wildlife Agency highlight the Canadian beaver as a somewhat potential alien species in the area. Based on the DNA samples identified to their species, the most northerly beaver sighting is in Enontekiö, Finland, of the European beaver. However, there are isolated sightings of beavers as far up as Inari, and no DNA samples from these sightings have been obtained to determine which species the individuals in the area were. In addition, the Russian side is relatively unknown. According to the Finnish Wildlife Agency, European beavers have been found on the Kola Peninsula, but on the other hand, Canadian beavers have spread from the east and south up to the Salla-Savukoski region.

The Finnish Border Guard

The Finnish Border Guard has examined the material in the request for a statement. Based on the material, the Finnish Border Guard finds no impact on the maintenance of border security and therefore concludes that the Border Guard has no comments to make on the matter.

Ministry of Social Affairs and Health, **Ministry of Transport and Communications** and **Finnish Safety and Chemicals Agency** and **Reindeer Herders' Association** responded but did not have any comment on the matter.

Conclusions

The Finnish Environment Institute emphasises that the remarks given in Finland regarding the proposal for a planning programme and the main challenges must be carefully considered and taken into account when planning the Tana, Neiden and Pasvik River Basin Management Plan for 2028-2033 and the Strategic Environmental Assessment.

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This document has been electronically signed. The electronic signatures can be verified from the register office of the Finnish Environment Institute.

Appendices Statements received in Finland

For information
Ministry for Foreign Affairs
Ministry of the Environment
Ministry of Social Affairs and Health
Ministry of Transport and Communications
Ministry of Agriculture and Forestry
Finnish Safety and Chemicals Agency
Reindeer Herders' Association
The Sámi Parliament
Natural Resources Institute Finland
The Finnish Border Guard
The Regional Council of Lapland
The Finnish Wildlife Agency