

SOCIETY FOR  
THE PROTECTION  
OF PRESPA



**PRESPA'S**  
Green & Blue Lifelines

**#02**

**The Agios  
Germanos River**

The aim of the **"Prespa's Green & Blue Lifelines"** project is to highlight the significance of the river, streams, and riparian zones of the Prespa National Park for biodiversity, ecological functions and human well-being, and to formulate proposals for their management and restoration, as well as the deterrence of threats. By collecting and processing scientific and socio-ecological data, and integrating natural and cultural values and functions, the project is promoting the importance of these aquatic and riparian areas for both biodiversity conservation and the prosperity of the local community.

One of the most important parts of the broader wetland landscape of Prespa is the Agios Germanos River. Its ecological importance has been acknowledged as a priority at both local and European levels, together with the need for its rehabilitation and sustainable water use, so that the river can fully recover its ecological functions and support biodiversity. The "Prespa's Green & Blue Lifelines" project carried out an in-depth review of literature, scientific publications and reports, together with a full hydrological year of fieldwork from 2022 to 2023. The river's ecological status, based on biological and physicochemical parameters, was assessed in collaboration with the Hellenic Centre for Marine Research (HCMR) and according to national methodologies under the Water Framework Directive (2000/60/EC), or other internationally accepted scientific methods. The measurements included monthly recording of physico-chemical characteristics such as pH, electrical conductivity, temperature and dissolved oxygen concentration, as well as nutrient concentrations of nitrogen and phosphorus in various forms, and flow measurements. In addition, an HCMR specialist team also sampled benthic macroinvertebrates and diatoms per season.

## A few words about the project

The Society for the Protection of Prespa (SPP) also studied how large mammals and birds use the river and its riparian zones, adding knowledge on vegetation and flora, as well as other fauna species, such as fish, gained from previous SPP studies or those carried out other research institutions. Particular emphasis was also given to what residents, visitors and other stakeholders thought about the significance of the river. The SPP carefully documented their opinions on its cultural value, its contribution to how the landscape is shaped and the conservation of its biodiversity and ecological functions, as well as the benefits or problems the river presents for people and their activities, and concerns related to the climate crisis and its impact on the river system.

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# The Agios Germanos River

## The river's importance for Prespa

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The Agios Germanos River begins life in the peaks of Mount Varnous, at an altitude of around 2,000 m. From there it flows down the granite slopes of the mountain and passes through the villages of Agios Germanos and Laimos, eventually reaching Great Prespa Lake. It is the largest and most dynamic river on the Greek side of the Prespa basin and is a vital source of life for the wetlands, wildlife and people.

The river's catchment area is 65.9 km<sup>2</sup> in total and is particularly mountainous, with a maximum altitude of 2,334 m. It passes through diverse terrain, with relatively steep slopes that give the water its swift-flowing character. The river races down from the peaks to the lowlands, carrying rich oxygenated waters and sediments to the lakes. In its lower reaches, below the village of Laimos, the incline is much gentler and the land surrounding the river is used primarily for agriculture.

The Agios Germanos River is the reason we have two lakes today, rather than one. The sediments it carries gradually filled the area between Great and Lesser Prespa. The movement of water currents and waves created a natural barrier, the isthmus, which eventually transformed what was once a single body of water into two distinct lakes. Even today, the force of the water as the river enters Great Prespa Lake, combined with the sediments it brings, continues to shape the landscape.

In the past, although the Agios Germanos River primarily emptied into Great Prespa Lake, during flood years a part of it would also flow into Lesser Prespa. After the completion of river engineering works in the 1930s, it was confined by embankments and discharged exclusively into Great Prespa.





When the area's irrigation network was built during the 1970s, the river's floodplain and extensive delta were converted into agricultural land. For the purposes of flood protection, flow regulation, channelisation and irrigation for part of this new agricultural land, several interventions were made at various points along the river. Its lowland section was straightened and enclosed within one main channel with embankments and low-water crossings, while other works allowed water to be drawn off for agriculture, mainly during the critical summer months when water flow is low. These interventions brought significant changes to the river's hydrology and morphology, with their effects intensified by further

challenges from the climate crisis, drought, rising annual average temperatures and declining water levels in Great Prespa Lake. Nowadays, although its lower reaches are confined within an artificially straightened riverbed, the river has created an important natural system at its mouth, with distinct ecological functions and rare characteristics that are protected at both national and European level.

The waters of the river continue to be a vital source of life today, irrigating extensive meadows and fields around the villages and the lake. Its waters have played a crucial role in the development of livestock farming and agriculture, supporting the local economy and directly linking nature with human activities.



In the 19th century, nine watermills were built along the river to serve both individual and commercial needs. These watermills were used to grind cereals, which were a dietary staple at the time. It is said that people even travelled by horse, mule or boat from as far away as Pustec and Zaroshkë in Albania in order to grind their grain in the watermills along the river.

# Qualitative and quantitative characteristics

## What does the water tell us?

The riverbed of the Agios Germanos River is 22.92 km long and is divided into four sections, all classified at EU level as "Small Mediterranean Streams". If all the tributaries are taken into consideration the total length of the river would stretch to 192 km. Along with the streams of Plateos-Milionas, Kallithea, Lefkonas, Karyes and Mikrolimni, it drains the mountains of the eastern and southern sides of Prespa National Park, westwards into the lakes.

The granite and gneiss geology of the eastern side of Prespa makes it harder for water to infiltrate the ground, resulting in more surface runoff in the river and streams. However, when vegetation slows the water down it manages to penetrate the soil through cracks in the rocks and reinforce groundwater reserves. This allows the underground aquifer to store large amounts of water and gradually release it, ensuring a stable supply to springs and wells.

According to the River Basin Management Plan for the Western Macedonia Water District, the Agios Germanos River is classified as a "Permanent Stream". Above the village of Agios Germanos it has two main tributaries: Siroka Stream, with a length of 7 km, and the 11 km Gaidouritsa Stream, which is fed by the smaller, but equally important, Giouvanitsa Stream. These three, along with other minor tributaries, join to form the Agios Germanos River.

The Agios Germanos River continues to support the economic activities of the residents to this day, with direct or indirect effects on the quantity and quality of its waters. Monthly measurements of physico-chemical parameters and water sampling in 2022 to 2023 indicate that the river maintains high water quality for most of its course, while the values for the system's biological quality are similar to those of a pristine river ecosystem. This means that the water quality is not significantly



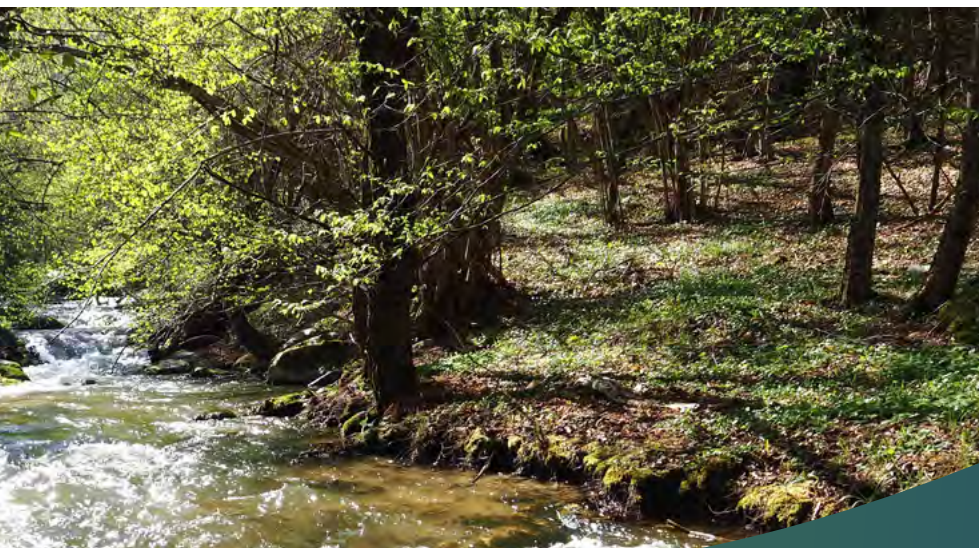


impacted by human activities. However, moderate water quality was observed at the river mouth in September and October 2023, due to increased concentrations of nutrients. Similarly, the highest nitrogen and phosphorus levels were recorded between the village of Laimos and the river mouth, primarily in May and June. These findings suggest that although the Agios Germanos River generally maintains high water quality, in certain locations and seasons this quality can be degraded.

Dissolved oxygen, a key indicator of good water quality, was found at relatively high levels, especially in the mountainous parts of the river, though water temperature varied significantly, ranging from 0°C in January-February 2023 to nearly 20°C in July-August.

The Agios Germanos River has a high water flow compared to the region's five streams, with peak flow recorded in early June 2023 and the lowest in September. Its annual average flow ranges between 0.79 and 1.10 m<sup>3</sup>/s.

Of this volume, approximately 5-7% is used to irrigate around 200 ha of farmland in the Prespa basin. With a drip irrigation project soon to be completed, water needs for crops will be met entirely by water abstraction from Lesser Prespa Lake, eliminating the need to use the river for irrigation.



# Where life flourishes

Meandering along the green and blue lifeline of the Agios Germanos River, a striking variation in vegetation can be seen, from the high-altitude almost alpine landscapes of Mount Varnous and forests reminiscent of northern Europe, all the way down to the river mouth at Great Prespa Lake and its lush riparian forests of alder and willow. Alders are relatively rare in the Mediterranean, as Prespa marks the southernmost edge of their range, and they are typically found below 1,000 m.

Along the length of the river's wooded banks, the trees most often found are silver willow, goat or pussy willow, crack willow and beech, followed by alder, silver birch, walnut, hazelnut and cherry plum. Beneath their dense canopy, shrubs such as wild clematis, wild rose, juniper, cornelian cherry, blueberry and bramble thrive. Here and there are small patches of wild thyme, a highly aromatic plant prized by bees. In addition to elevation, human activities have also played a significant role in shaping the vegetation, which has affected the Prespa landscape over time.

## Elevations above 1,600 m

At these elevations, the landscape is strongly influenced by the more severe weather, but perennial grasses have gained a foothold where depressions retain the sediments carried by snow and rain. These are known as snow meadows or "combed" meadows, due to their distinctive appearance created by the flow of melting snow. This vegetation is particularly dense and develops in flat or slightly sloping areas where it forms the EU priority habitat type (Directive 92/43/EEC) 6230\* Species-rich *Nardus* grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe). Due to their gentle slopes and soil retention, these meadows maintain significant moisture levels for most of the summer, making them excellent grazing pastures.

Ghost orchid (*Epipogium aphyllum*)



## High elevations

1,400-1,600 m

Here the vegetation is limited to a few woody plants, such as wild roses and hawthorn. The landscape opens up into characteristic meadows on smooth, undulating terrain and is of high pastoral value for Prespa's livestock farmers. On the cooler, north-facing slopes, groves of fir and beech grow along the Giouvanitsa and Gaidouritsa streams, home to the rare silver fir. Mixed groves of this type constitute the habitat type 951A Greek silver fir forests. These forests have an extremely limited range in Greece, and Prespa marks the southernmost extent of this species in Europe, alongside sporadic populations in the Rhodopes.

Another, more common, fir species is the King Boris fir (*Abies borisii-regis*); together with beech this forms the habitat type 9270 Hellenic beech forests with *Abies borisii-regis*. The discovery of an unknown fir, which does not belong to any of the known fir species, has been a totally unexpected surprise. Only a limited number of these trees have been found in northwestern Greece and on Mount Pelister in North Macedonia. All indications suggest that during the last Pleistocene ice age the Prespa National Park area was a refuge for many species, including this particular fir, which has been code-named M4 (*Abies sp.*).

The forests here form a refuge for exceptionally rare plant species, such as the green shield-moss, *Buxbaumia viridis*, which grows on decaying trees, and the ghost orchid, *Epipogium aphyllum*. The dense structure of the forest along the Agios Germanos River keeps the water cool, even during the summer.

## Mid-elevations

1,000-1,400 m

The riparian vegetation becomes richer at these elevations. The composition of the flora in these riparian mountain groves is unique, as many species are adapted to an environment that constantly hovers between the aquatic and the terrestrial. The forest here is mostly made up of willows (*Salix alba*, *S. fragilis*, *S. caprea*), interspersed with beech (*Fagus sylvatica*) and silver birch (*Betula pendula*). Human activities have significantly influenced the forest structure, although, with the exception of beech trees, these species thrive in the resulting diffuse light, forming open-canopy forests. The priority habitat type 6220\* Pseudo-steppe with grasses and annuals of the Thero-Brachypodietea, with its characteristic high diversity of plant species, can be found in the gullies carved by tributaries of the Agios Germanos River as they descend the slopes of Mount Varnous.

## Lower elevations

800-1,000 m

At lower altitudes, the riparian vegetation is even more diverse; alongside willows there are groves of alder (*Alnus glutinosa*), ash (*Fraxinus sp.*) and poplar (*Populus sp.*). Trees such as wild cherry, cornelian cherry, cherry plum, wild hazel and walnut can be found dotted throughout the landscape, a testament to both human presence and seeds spread by wildlife eating their fruit and nuts. Near the river mouth, large areas of alder forest and reedbed (*Phragmites australis*) have developed.

It is noteworthy that where the river is enclosed by alder or willow forest, the plant diversity is much greater, with species that differ from those found in other parts of the river system.

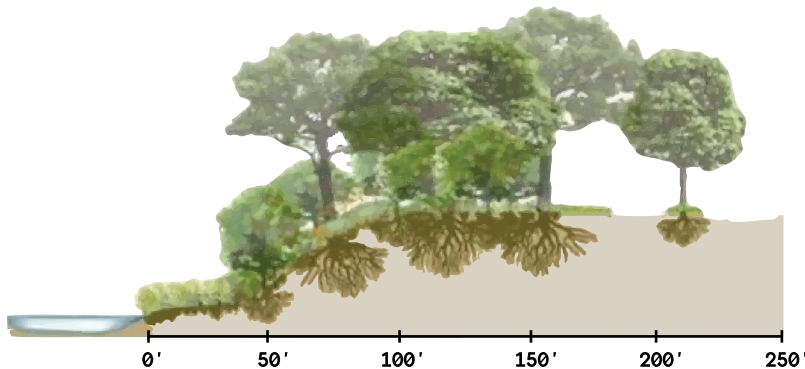
# Alder and willow forests

## Habitat Type:

The vegetation in an area, which has distinct biological and geographical characteristics and functions as a cohesive unit

**Alder:** 91EO Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) Priority Habitat Type (Directive 92/43/EEC)

**Willow:** 92AO *Salix alba* and *Populus alba* galleries (Directive 92/43/EEC)



## Why are they important?

**Filter pollutants:** They trap organic and chemical pesticides and fertilisers, holding back substances that lead to eutrophication in the lake.

**Improve water quality:** Their roots oxygenate the water, enhancing its overall quality.

**Regulate temperature and humidity:** They moderate extreme temperatures and increase moisture in the soil and atmosphere.

**Enrich the soil:** Alders are nitrogen-fixing trees, improving the soil and making nitrogen available to other plants.

**Recharge groundwater:** Forests slow down and retain rainwater, boosting underground water reserves.

**Shade the river:** Trees reduce water temperatures by blocking direct sunlight.

**Support nearby crops:** They create a cooler microclimate and reduce wind intensity, which are favourable for adjacent agricultural fields and crops.

**Prevent erosion:** Tree roots stabilise stream banks, control sediment deposition and help stop soil being washed away.

**Regulate floods:** They slow down and buffer flood flows, reducing their intensity.

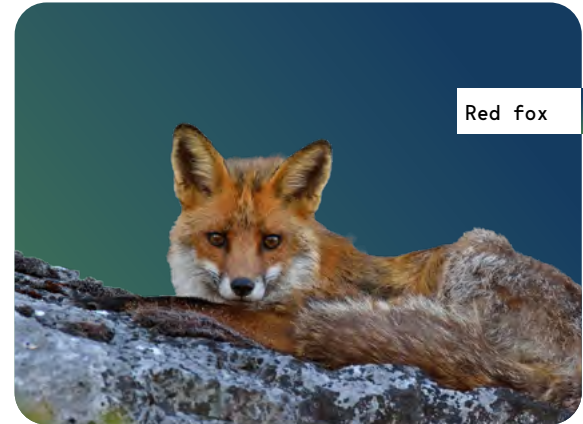
**Boost biodiversity:** The forests are habitats for diverse and unique species, and act as green bridges, facilitating wildlife movement.

# And beneath the trees?

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Roe deer



Red fox

Our green and blue lifelines, the river systems, are vital for wildlife. Their lush vegetation creates an important **movement corridor for wild animals**, offering them safety, quiet, food and water. They connect the wetland systems of the lakes with the mountain forests and meadows of the Prespa National Park, helping to maintain biodiversity and reduce the ecosystem fragmentation caused by various activities.

The Agios Germanos River is used for safe passage by bears, jackals, foxes, wildcats, wild boar, roe deer, badgers, martens and hares. Most of these animals avoid people, being active mainly at night. Salamanders can also be encountered along these damp and watery pathways, while the Greek smooth newt is found in densely vegetated pools.

**Looking up** into the foliage reveals glimpses of the many birds that have found an ideal place to feed, roost and build their nests amongst the trees. These species include nightingales, great and long-tailed tits, blackbirds and wrens. In spring, these birds turn the river into a magical soundscape, with their songs reverberating through the villages. The water is also home to a rich insect population, which provides an ideal food source for their young.

The soft wood of trees like willow and alder is perfect for woodpeckers to chisel out their nests. The piercing call of the green woodpecker is often heard, while broken trunks and decaying trees are a magnet for white-backed and grey-headed woodpeckers.



European green woodpecker



White-throated dipper



European bee-eater

**In the fast-flowing, oxygen-rich waters**, the white-throated dipper can be seen perched on stones, readying to find food in the water. It is the only passerine bird species that can fly, dive and walk in the icy waters of the river. It is also considered an indicator of the health of the river ecosystem, as it feeds on macroinvertebrates that are sensitive to pollution.

The grey wagtail can usually be found nearby; another year-round resident of streams and running waters, this species was thought by the ancient Greeks to be a gift from Aphrodite and a harbinger of rain.

At lower elevations, bee-eaters nest by digging holes in the soil, forming colourful colonies on bare slopes.

Amongst the willows downstream, where the Agios Germanos River meets the lowland riparian forest, penduline tits weave their elaborate hanging nests, which can reach up to 25 cm in length and are made from twigs, grass, wool and willow down.



Penduline tit

# And in the water?

Many species inhabit the waters of the Agios Germanos River, but the most well-known is undoubtedly the **endemic Prespa trout** (*Salmo peristericus*) [01]. The river's clarity, high oxygen content, low temperatures and mountainous landscape all create the ideal habitat for this unique species. It has been an object of study since 1922 and has been included in Annex II of the Habitats Directive 92/43/EEC and on the national Red List of Endangered Species. This trout has a distinct genetic profile and lives exclusively in the Agios Germanos River and three other rivers in North Macedonia, forming separate and isolated populations. It requires abundant, very clean and cold water to survive, and spawns in winter.

It is considered an endangered species, therefore it is prohibited to fish for it in the Agios Germanos River, as well as in the other three rivers where it lives in the transboundary Prespa basin. It is highly sensitive to anything that might reduce water quantity, degrade quality, increase temperatures or pollute the rivers. As water levels fall, it becomes ever more crucial for the Prespa trout's survival to secure cool and oxygen-rich places along the river.

As the river nears Great Prespa Lake, when spring arrives and temperatures are suitable, another four endemic Prespa fish species **come to lay their eggs** in the gravel and rocks at its mouth and just upstream: Prespa barbel (*Barbus prespensis*) [02], Prespa nase (*Chondrostoma prespense*) [03], Prespa bleak (*Alburnus belvica*) [04], and Prespa roach (*Rutilus prespensis*). Up until the 1990s, the number of fish using the riverbed to spawn was remarkable, with thousands entering the river on many spring and summer nights!



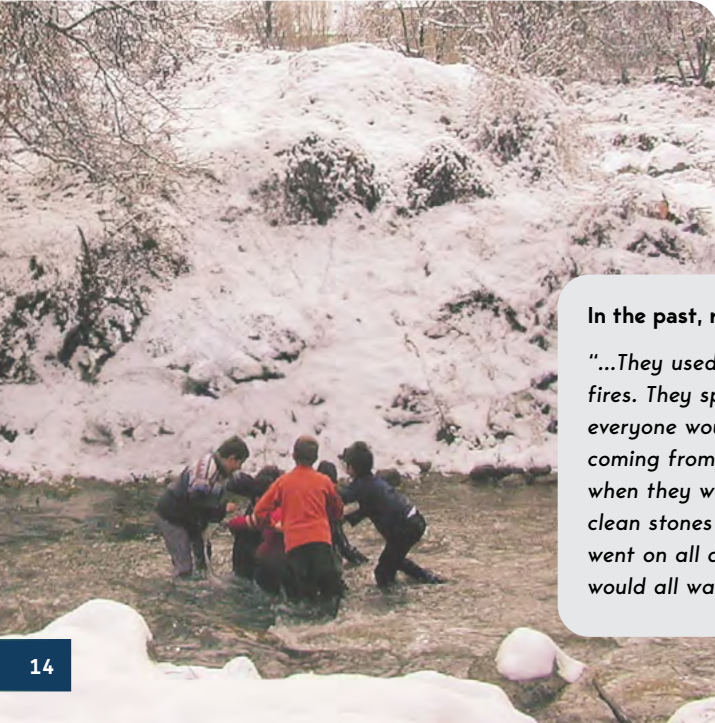
# People and the river

The Agios Germanos River plays an important role in the lives of local people. Most have daily contact with it, as it passes through the villages of Agios Germanos and Laimos. Many have kitchen gardens or fields near the river and use it for irrigation. The river's swift-flowing waters, and the extensive marshy delta it had before it was embanked, have inspired numerous local legends and myths:

*"It's said that fairies would come out at night, where the river flowed towards Matornik. They would come up, all dressed in white, below the army post there, they say. You couldn't see the water for those fairies dancing there, in that spot beneath the bridge, below the army post. Villagers would say, 'Goodness me, am I really seeing beautiful white dancers in front of me?' ...they would leave a red thread there, or even wear it, to keep from seeing the fairies again."*

**In the past, rivers were an integral part of people's daily lives:**

*"...They used to go to the rivers to wash clothes, heating water in large cauldrons over wood fires. They spent the whole day washing. The stones were ready to put the cauldron on... everyone would set them up on nice stones and they would bring firewood – if they were coming from further away, they would bring it by donkey. They had wooden troughs, and when they were done washing the clothes, they would spread the blankets and rugs on the clean stones to dry. In the evening, they would load up the donkey and take them home. This went on all day... people would come from other villages where there were no rivers, and we would all wash our things together."*



The water of Agios Germanos also powered several watermills. These mills, which were still working in the last century, served the local community by grinding cereal grains, which were a dietary staple at that time. In recent years, following efforts by the SPP, the villagers of Agios Germanos, the Municipality of Prespa and the public services, the central complex of two watermills has been restored and now informs visitors about the river's importance and functions, as well as showing how the mill machinery worked. The river has always been closely connected to livestock farming too, as animals graze on the surrounding slopes.

Today, everyone recognises how important the river is for people, wildlife and livestock, as well as for supplying Great Prespa Lake with clean water. Many also appreciate its aesthetic value and the recreational opportunities it offers. Every year on the celebration of Epiphany, the young men of the village jump into its crystal clear and icy waters to retrieve a cross, maintaining a long-standing tradition. However, people have concerns about fallen trees and vegetation in the riverbed, which could obstruct the free flow of water during extreme weather events. Though, some also emphasise the positive role of vegetation in slowing down water flow and preventing bank and soil erosion in the case of flooding. At the same time, they stress the enormous importance of trees in creating a cool microclimate amidst the climate crisis, benefiting both the land and all those who use it.

The uncontrolled dumping of rubbish and construction waste in certain places, excessive use of water for irrigation and the intensive presence of livestock near the water during critical periods such as the summer have been identified as the main challenges in the relationship between people and the river. Most agree that the climate crisis will negatively affect Prespa's rivers by reducing the amount of available water, and they would like local people's opinions to be taken into account in decisions on the area's water management.



# A sensitive balance

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## What affects the river?

According to research conducted by HCMR over the past three years, agrochemical pollution from nearby fields, as well as point source and diffuse pollution from the livestock that drink from the river, impact the water quality of the Agios Germanos River, as well as the ecological balance of Great Prespa Lake. It is estimated that the nitrogen load in the river from agriculture exceeds 600 kg per year, while the phosphorus load reaches 594 kg per year. Excessive concentrations of these elements in aquatic systems contribute to the overgrowth of algae. As a result, available oxygen in the water decreases, ultimately leading to eutrophication and degradation of the water quality.

Similarly, numerous technical works, mostly found where the river and the road network intersect, also affect the ecological condition of the river to a greater or lesser extent. A total of 105 such interventions have been recorded in the catchment of the Agios Germanos River: bridges, weirs, water intakes, plastic and concrete culverts and channels. Many of these structures are in poor condition or no longer serve their original purpose, while some pose significant barriers to the movement of species and negatively impact the ecology of the river.



Weir barring fish from moving upstream

Some of these works alter the natural flow of the water, affecting both its quantity and quality. They may cause bank erosion and increase sediment deposition, impacting the stability of the slopes. Interventions along the length of the river, such as high embankments and concreting the riverbed, increase the velocity of the water. As a result, the riverbanks experience greater pressure, as they are unable to slow the water's speed and erosive force, especially where there is no vegetation on the banks. Funded by WWF Greece, the Society for the Protection of Prespa is studying the condition of these various pieces of infrastructure, particularly in light of the extreme weather events brought by climate change, aiming to improve their effectiveness for their intended purpose and in relation to biodiversity conservation and preserving the river's ecological functions.

The discontinuity created by infrastructure built across the width of the river is a serious problem for the movement of aquatic wildlife, particularly fish. During periods of high water flow, some trout are swept downstream and end up trapped in the lake, unable to return upstream because of the numerous obstacles between them and the higher reaches of the river. Any reduction in water flow also renders many barriers along the river impassable. The drop in the water level of Great Prespa Lake, around 8 m in the last 30 years, has already affected the condition of river-crossings in the lowlands, as the resulting increased water velocity wears them away more quickly.

Household waste and agrochemical packaging frequently end up on the riverbanks and in the water. This waste breaks down into microplastics, which spread into crops, wildlife and water, ultimately re-entering the food chain and eventually reaching us, with unknown consequences for our health. Similarly, fertiliser and pesticide containers that end up in the river contain high concentrations of chemical residues, which poison the species that come into contact with them. In recent years, however, the Municipality of Prespa has addressed this issue with the construction of designated disposal sites for agrochemical containers, helping to reduce this widespread problem.

Agrochemical containers



All these issues are being intensified by the changes that the climate crisis is bringing about. According to research conducted by the National Observatory of Athens, Prespa can expect a decrease in annual precipitation, but rain and snow will fall in both wet and normally dry months. Increases in average annual temperatures and heatwave days during the summer are also projected, as well as a general increase in extreme weather events. Consequently, it is expected that nature will go thirsty in the near future, and this is already becoming apparent.

Man-made pollution



In recent years, record numbers of dry days have been recorded, while snowfall appears to be decreasing year on year. Less snow and rainfall means less water in the river, and in some years this means its lower reaches can dry up during the summer months. The infrastructure along the river further exacerbates the situation, as lower water levels drastically limit the ability of fish and other aquatic wildlife to navigate these obstacles and move to suitable habitats upstream. Water abstraction, if not regulated according to water availability during the summer, may increasingly leave these species exposed to extreme conditions without an escape route. Due to the climate crisis, fish that live in the river (such as trout) or reproduce in its lower reaches (such as nase and barbel) are expected to face serious challenges. Rising temperatures, and the lack of sufficient satisfactory spawning sites due to drought, shorten the reproductive period. This limited time with suitable breeding conditions will lead to reduced or unsuccessful reproduction, resulting in a gradual decline in populations as the losses are not replenished.

A scenic view of a river flowing through a forest. The river is white with foam as it flows over mossy rocks. The surrounding forest is lush with green trees and foliage. The scene is captured from a slightly elevated perspective, looking down the length of the river.

# The next steps

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## The future of the Agios Germanos River is in our hands

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To protect the health of the Agios Germanos River ecosystem and its waters, we must stay one step ahead of the changes taking place around us, adapting our management and activities to do the following:

→ **Restore the ecology of the river:**

Restoring the river ecosystem would contribute to biodiversity conservation, increase fish populations and improve water quality. Clean, well-oxygenated river water would also significantly enhance water quality in Great Prespa Lake, helping to maintain its hydrological balance and mitigate the threat of eutrophication.

→ **Restore continuity and habitat connectivity:**

To ensure the free flow of water and the movement of fish populations, restoration works are needed in areas where obstacles exist. Problems have been identified at specific points, such as culverts and bridges, where inadequate maintenance has reduced their capacity to handle water flows.

→ **Restore vegetation:**

In areas where vegetation has receded, it should be restored to ensure that the river remains a green corridor for wildlife movement and that aquatic habitats remain hospitable to fish. Vegetation stabilises the riverbanks, protects against erosion, reduces sediment transport and helps maintain a cool microclimate.

→ **Conserve water resources:**

The irrigation network that currently draws water from the river is expected to be replaced with a new drip irrigation system using water from Lesser Prespa Lake, aiming for better water management, especially during the critical summer months. Systematic monitoring of water reserves and any fluctuations in river water levels is also required.

→ **Ensure water quality:**

Effective treatment of diffuse pollution from grazing animals and setting up waste collection points would be significant steps towards preventing these contaminants from ending up in the river. Protecting the endemic Prespa trout by implementing the biodiversity and water management proposals outlined in the National Action Plan for native trout species is equally important.

→ **Sustainable practices and waste disposal:**

In the agricultural lowlands, it is necessary to promote and implement sustainable agricultural practices, ensure that waste is collected in designated areas and dispose of empty agrochemical containers appropriately. Similarly, treating agricultural runoff before it reaches water bodies is essential, as is implementing a systematic water quality monitoring programme.

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