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EurEau Position Paper on the Directive on Soil Monitoring and Resilience

Summary

While EurEau welcomes the Commission's action to address the condition of soils, we regret the lower ambition shown by the proposed Directive on Soil Monitoring and Resilience compared to the abandoned project of a Soil Health Law. The monitoring rules laid down in the proposal are necessary but not sufficient. They should be accompanied by binding rules to protect and regenerate healthy soils. The Directive should incorporate stronger links with surface- and groundwater quality, as well as Circular Economy goals. Strong action for healthy soils is paramount for both drinking- and wastewater operators.

1. Introduction and general comments

EurEau is the European Federation of Water Services, representing public and private operators from 32 countries. A robust directive on Soil Monitoring and Resilience will benefit society at large as well as water service providers.

We support the general philosophy of the Directive, aligned with the EU Biodiversity Strategy as well as the Farm to Fork Strategy and the Zero Pollution Action Plan, though the text should go much further to prevent further soil degradation. Even today, soil continues to degrade, and this continued worsening has a negative impact on water resources which can in turn affect consumers' water bills. Healthy soils are also indispensable to sustainable agriculture and climate change adaptation, as they can protect against the worst effects of droughts and floods. We therefore welcome the establishment of a level playing field through basic requirements for monitoring and reporting on soil health.

The Directive must go beyond monitoring alone, however, and include binding rules to preserve healthy soils and restore polluted or degraded soils. The polluter should bear the remediation costs. The text should set binding deadlines and targets for the regeneration of soils assessed as unhealthy, and establish clearer EU definitions of contaminated sites.

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We call on the Commission to implement upstream measures (controlling pollution at source) as these are key to preventing soils and thereby drinking water resources from being polluted.

As the Commission pointed out in its Impact Assessment, 60-70% of European soils are estimated to be unhealthy. From this we can conclude that action at Member State level has sadly failed. We therefore support taking action at EU level, in keeping with the subsidiarity principle, so that we can all reap the benefits healthy soil can bring.

The proposed Directive must go further in taking into account the direct link between soil health and groundwater and surface water quality. We call for more detailed links to other EU environmental legislation, in particular the Water Framework Directive (2000/60/EC, WFD) and its daughter Directives, with the Drinking Water Directive (2020/2184 (EU), DWD), as well as with the Sewage Sludge Directive (86/278/EEC) and EU waste management policy. The timing of the 5-year reporting cycle laid down in **Article 18** would particularly benefit from being synchronised with WFD reporting cycles. Groundwater quality criteria derived from the Groundwater Directive (2006/118/EC, GWD) must also be taken into account for a comprehensive assessment of soil health.

2. The link between soil health and groundwater quality

According to the European Commission, healthy soil provides us with several ecosystem services. One of the core ecosystem services is to absorb, store and filter water so that groundwater is protected. Healthy soil is therefore vital for our water resources. Intensive land use and land use changes over the years have damaged and polluted soil with a wide variety of harmful substances, some of which then seep into groundwater or contaminate surface water through runoff.

The Commission estimates that 60-70% of soil ecosystems in the EU are unhealthy and suffering from continuing degradation. As a result, concentrations of nitrates, pesticides, PFAS, heavy metals, drug residues and other emerging substances are almost everywhere in our groundwaters. Hence, the quality of groundwater continues to deteriorate. This is especially harmful to drinking water operators who use groundwater as a source for their drinking water; 65% of Europeans drinking water comes from groundwater.[1] Yet the direct link between the proposed Directive and groundwater quality is omitted. We believe this is a missed opportunity.

We call on policy makers to ensure that the importance of groundwater and the link between soil and groundwater is incorporated into the objectives of the Directive laid down in **Article 1**.

[1] EEA, Europe's groundwater – a key resource under pressure, 2022.

Monitoring process and sustainable soil management (Articles 7-10, Annex I)

The EU is in need of a comprehensive monitoring framework that identifies healthy or degraded soils in need of protection. We fully support the creation of a monitoring framework and welcome the proposed framework as a first step towards healthy soils in the EU.

We welcome the approach taken in the legislative proposal to reduce pollutant inputs to a minimum. For the promotion of soil health and the associated protection of ecosystems and drinking water resources, it is necessary to clearly define limit values. From our point of view, however, the present legislative proposal falls short of expectations in this respect. The indicators proposed in Annex I and the methodology presented in Annex II fail to formulate binding EU-wide targets and limit values and will therefore hardly lead to uniform implementation and comparable limit values within the EU. While the monitoring of soils is a first step to detect further soil degradation, at the same time concrete limit values for soil health as well as short- and long-term binding targets for soil restoration have to be set now, and their implementation verified with the necessary monitoring. Otherwise, it is possible that soil monitoring will simply bear witness to the increasing degradation of soils, but concrete measures to restore these ecosystems will be lacking.

Moreover, the proposed monitoring framework does not include the monitoring of groundwater quality. This is a missed opportunity because the Commission states that the outcome of the monitoring determines whether Member States must take measures if soils do not meet the criteria set by the Directive. **The assessment of soil health under the proposed Directive should take into account the chemical status of related groundwater bodies.** By using existing results from the monitoring and assessment conducted under the Groundwater Directive (2006/118/EC, GWD), this would not add to the regulatory burden for competent authorities.

If the Soil Monitoring Directive does not include the quality of the groundwater as a criterion, it could lead to a continuation of unsustainable soil management practices affecting the quality of the groundwater. Member States should be empowered and obliged to act to remedy such cases.

Annex I should include chemical groundwater quality as a descriptor to measure soil health, with criteria derived from the GWD and the DWD, to be applied at the very least in areas used for the abstraction of water intended for human consumption. Apart from heavy metals, Annex I does not define any descriptors for substances that lead to soil contamination. It is left to the Member States to define "a selection of organic contaminants established by Member States and taking into account existing concentration limits e.g. for water quality and air emissions in Union legislation". Therefore, the Directive should at least specify which groups of pollutants need to be addressed by the Member States in the selection they make (e.g. active substances and metabolites of pesticides and biocides, pharmaceuticals, industrial chemicals, microplastics).

Another missed opportunity is that the Commission proposal does not **set targets or deadlines** for the measures that Member States must take when a soil does not meet a criterion. In short, a soil declared 'unhealthy' does not have to be 'healthy' in the next monitoring round under **Article 9**.

Article 10 (Sustainable soil management) must set these deadlines and targets for regeneration practices in areas designated by the WFD for the abstraction of water intended for human consumption in cases where soil is found to be unhealthy. In case of pollution due to agricultural practices, CAP funds should be directed towards soil remediation.

Soil remediation (Chapter IV, Articles 12-16)

We welcome the risk-based approach laid out in **Article 12** regarding soil remediation at contaminated sites. Member States will have to remediate the soil at these locations until it no longer poses a risk to the public. However, the framework proposed for doing this is excessively vague. The Commission has drawn up both a risk-based approach and standards without strict requirements. Specifically, each Member State is free to define what constitutes a contaminated site. Member States are also free to determine the standards they must comply with. As a result, we fear that these voluntary measures will not result in soil remediation. On the contrary, contaminants will remain in soils and pose an ongoing risk to drinking water resources.

Areas for the abstraction of water intended for human consumption should be given priority when applying the risk-based approach to soil remediation to guarantee their protection. In addition, the Directive must ensure that soil remediation is carried out according to DWD standards in locations where contaminants pose a risk to the drinking water supply.

3. The link between soil health and surface water quality

A healthy soil acts as a sponge in the event of precipitation, whereas unsustainable land use practices, including soil sealing, create impermeable surfaces. As a result of these practices, less water can infiltrate into the soil and there is more surface run-off into surface waters (e.g. small streams, rivers) and sewer systems. Sediments and nutrients are then channelled into these streams or sewer systems due to erosion and leaching. Consequently, both drinking water and wastewater operators have to resort to additional treatment steps to ensure water is of a good enough standard, creating greater energy demand and investment needs leading to considerably increased costs for consumers.

With healthy soils, not as much rainwater reaches the wastewater treatment plant (WWTP) through the sewer system. Subsequently, two effects occur that have beneficial knock-on effects for consumers. First, when the amount of water discharged to the WWTP is decreased during rainfall, the maximum capacity of the WWTP is reached less often and consequently, overflows to surface water occur less often. This is beneficial for surface water quality, including for compliance with the Bathing Waters Directive. It also directly

contributes to the objectives set in the revised Urban Wastewater Treatment Directive on storm water overflows. Second, as the amount of rainwater that reaches WWTPs is reduced, the concentration of pollutants in that water will increase. With a higher concentration of pollutants, treatment methods of WWTPs will work more effectively and more efficiently. This will also improve surface water quality while potentially reducing the energy consumption of the wastewater treatment process. The result is beneficial both for the aquatic environment and for consumers' bills.

We strongly welcome the criteria set out in **Annex I** of the Commission proposal to monitor **soil capacity to retain water**. In order to prevent a deterioration of this vital ecosystem service, particularly as the frequency of floods increases as a result of climate change, we urge the co-legislators to build on the Commission proposal by setting deadlines and targets under **Article 10** for regeneration practices in areas prone to flooding and drought.

4. Treated sewage sludge for healthy soils

We welcome the inclusion in **Annex I** of soil health parameters such as loss of soil organic carbon, topsoil compaction, acidification and loss of soil biodiversity. In all these areas, the recovery and reuse of nutrients from treated and controlled sewage sludge can benefit soil health. The use of treated sewage sludge can in particular help remediate soils that have been degraded through the loss of organic carbon. Monitoring these benefits may contribute to spreading this practice, which strongly aligns with the prioritisation of circular fertiliser supplies mentioned in **point (e) of Annex III**.

5. Necessity of implementing existing legal frameworks

We consider it fundamental for the promotion of soil health to fully implement existing legal acts. The Nitrates Directive (91/676/EEC), for example, contains important measures which can minimise the nitrate pollution of soils in Europe. However, this Directive is not properly implemented in several Member States. Consequently, not even the level of soil health that could be achieved with current legislation is being achieved. While the present legislative proposal on soil monitoring will complement the existing legal acts, all measures need to be implemented consistently, fully and promptly in all Member States. This would contribute to a uniformly good level of soil health across the EU.

The Directive should make explicit the synergies with existing legislation, as well as with legislation currently in co-decision such as the Industrial Emissions Directive (2010/75, IED, under revision) for contaminated sites and the Carbon Removal Certification Regulation (proposal 2022/0394) for carbon sequestration in soil.

6. Adequate implementation of the polluter-pays principle for the health of European soils

In this context, the adequate implementation of the Precautionary Principle and the Polluter Pays Principle, as enshrined in the European Treaties (Art. 191 TFEU), is also necessary. By taking adequate precautions in agricultural and industrial activities, soil pollution can be avoided or greatly reduced before it even happens. Otherwise, the polluters must be held actively responsible for the environmental damage they cause.

Where such damage is not already covered by the Environmental Liability Directive (2004/35/CE, ELD), the application of the Polluter Pays Principle must be enshrined in the proposed Soil Monitoring Directive. Inputs from agriculture and industry that result in soil oversaturation should be disclosed transparently. In addition, we see the need to tighten the sanctions provided for in **Article 23**. At this point, not only the payment of fines is required, but also the submission of remediation plans, which are subsequently checked for their feasibility and monitored during implementation. This harmonises the individual approach to sanctions and leads to a level playing field in all Member States.

7. Limit soil sealing in a coherent manner

As stated in the legislative proposal, soil sealing leads, among other things, to higher flood peaks and more intensive heat island effects. The European Environmental Agency (EEA) identifies soil sealing as one of the main causes of soil degradation in the EU.[2] In agreement with this, we see an urgent need for action to limit soil sealing. We propose not only to monitor it, but to introduce a proportionate limit value or to link it to simultaneously required unsealing action programmes. Compensation through unsealing would contribute to the restoration of natural habitats, increase soil quality and contribute to fighting heat island effects in urban areas.

Conclusion

As it stands, the Commission proposal sets out a framework to assess how well or badly European soils are doing and refers to a target of 100% healthy soils by 2050, but it stops short of providing the tools to get there by setting a holistic approach to soil management with binding targets and deadlines as well as initiating measures and their regular evaluation.

About EurEau

EurEau represents Europe's drinking and wastewater sector. We encompass 37 national water services associations including public and private operators from 32 countries.

Together we promote the access to safe and reliable water services for Europe's citizens and businesses, the management of water quality and resource efficiency through effective environmental protection.

[2] EEA, What is soil sealing and why is it important to monitor it?, 2022