European Water Association

Position Paper 2021

Position Paper for the Evaluation of the Sewage Sludge Directive Targeted Stakeholder Consultation

40 years 1981-2021

EUROPEAN WATER ASSOCIATION

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Europe is a large continent, with a great diversity among counties and regions in terms of environmental, social and economic situations, but sharing some common goals, one of them being to live in a prosperous and inclusive society, with a safe and sustainable environment.

- The role of the Sewage Sludge Directive should be to ensure that sludge treatment and disposal is safely integrated into the circular economy, ensuring inter alia that public health and the environment are protected.

Sewage sludge is a "sink" for valuable substances such as phosphorous, nitrogen and other plant nutrients as well as for many of the toxic chemical pollutants and microorganisms removed from sewage in sewage treatment facilities. The quality of sludge and the choice of treatment and disposal of the sludge determines its environmental impact.

The focus of the existing Directive is its utilisation on agricultural land. When stabilised sludge is used in agriculture, it must be ensured that pollutants or microorganisms in the sludge will not give rise to degradation of soil quality and/or groundwater. Such degradation may have negative implications for public health and food safety (and therefore, ultimately, also the integrity of the internal market for foodstuffs).

- The focus in sewage sludge management should be on safety (public health and environment) and extended from addressing not only consider chemical pollution but include also relevant microbiological aspects (e.g. by addressing risks posed by E. coli, salmonella, virus, enterococci and antibiotic-resistant bacterial strains) and emissions of greenhouse gases (methane) from insufficiently treated sludge residues.
- For this purpose, it is necessary to include provision of clear guidance on sampling, frequency and analysis method for suitable indicators (including microbiological parameters) to ensure that sludge is safely managed.
- The scope of chemicals covered by the Sewage Sludge Directive should be adapted to the current state of knowledge. The existing requirements of the fertilizer law must also be taken into account.

Disposal of sewage sludge by landfilling should be phased out in the future. Future sludge management should take into account the possibility of energy recovery (thus contributing to energy efficiency), recovery of valuable raw materials (resource efficiency) and a reduction of the final waste volumes requiring disposal.

Current practices in terms of sludge disposal vary significantly in Europe, from country to country and region to region, depending on a lot of circumstances, including namely the type and quantity of sludge, land availability, type of soils, groundwater depth and environmental restrictions. In particular in rural areas, with the soils with a low pH and a poor organic content, the spreading of sludge on land for reforestation, landscaping or agriculture are still common.

In any case, moving away from landfill and land disposal solutions is likely to require significant investment in new technological solutions.

The cost of sludge treatment and management contributes significantly to the cost of sewage treatment and changes in the treatment and disposal practices for sewage sludge will therefore impact on cost recovery from the users of sewage services and will in some countries give rise to issues of affordability for the users of sewage disposal services. However, sewage sludge treatment costs, are not only those for the operators of wastewater collection and treatment. Disposal methods that give rise to pollution of soil and groundwater will lead to losses in the value of land and in the costs of water and may lead to market losses for agricultural producers and therefore indirectly create costs for landowners, farmers and water users.

- A new regulatory framework for sewage sludge management and its requirements should take full account, not only of costs for operators of sewage collection and treatment facilities and affordability issues for their users, but also for the indirect costs of sewage disposal and risks for landowners, farmers and water users.
- The concerns with soil deterioration, food security and continuous degradation of groundwater, require an integrated approach and innovative solutions for the sludge disposal, in line with initiatives of EU, in particular the European Green Deal, where the green energy, resources recovery, and circular economy plays a crucial and important role.
- The challenge is to eliminate landfill solutions for sludge disposal and progressively reduce the disposal on land. Implementation will require comprehensive recommendations with a solid framework in terms of innovative sustainable solutions, balancing its economic, environmental and social impacts.

Research[1] and numerous examples of advanced sewage sludge treatment in Europe demonstrate that sewage sludge can be an important source of energy and raw materials. However, experience also shows that there often are important barriers in the form of costs, affordability and regulatory barriers standing in the way of a more widespread safe recovery of energy and raw materials.

Important regulatory barriers, especially for smaller countries, are the rules on waste shipments and the absence of "end-of-waste" criteria for sewage sludge foreseen in the Waste Framework Directive. In some cases, these barriers stand in the way of effective energy and raw material recovery from sewage sludge. The Waste Shipment Regulation is currently being reviewed.

- Given the direct link between the Sludge directive and the Urban Wastewater Directive, the EWA recommends the Commission to look for ways for coordinating the approach to sewage sludge in the two regulatory frameworks.
- The elaboration of end-of-waste criteria needs to be ensured and accelerated to facilitate the integration of sewage sludge management in the circular economy. Sewage sludge should therefore be included in the waste streams for which end-of-waste criteria will be elaborated under the Circular Economy Plan.

[1] E.g. the Interreg WOW project

- EU support and incentives for investment in sludge management will be needed in Member States with documented issues of affordability of these services and it should be ensured that such investments qualify for support from the MFF and NextGeneration EU funds.

Especially with respect to recycling of phosphorous from sewage sludge, recycling either through disposal of sludge or its ashes directly on land, or by application of technologies for the recovery of phosphorus from wastewater, sewage sludge, or sewage sludge ash with subsequent recycling of the phosphorus should be possible.

Member States should be free to choose the way in which phosphorus recycling is carried out, provided they demonstrate that this is in line with the requirements of soil and groundwater protection. To this end, the recycling of sewage sludge, sewage sludge ash or P recyclates should be controlled properly. This control could include appropriate quality assurance systems.

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