



## **ESPP input to the EU consultation on the Water Framework Directive**

17 November 2017

**We consider that the Water Framework Directive (WFD) is a key piece of EU environment policy and should be maintained at its high level of ambition, and its implementation reinforced, developed and supported.**

We also support fully **maintaining the Urban Waste Water Treatment (UWWT) and Nitrates Directives** as obligatory “basic measures” of the WFD.

We support the conclusions of the Deloitte - IEEP review (“Support to Fitness Check Water Policy”, 2011) that EU **water legislation has improved water quality significantly** across Europe, even if there are questions concerning implementation. We support the conclusion that there is no need for a general overhaul of Europe’s water legislation but that better integration of water objectives is necessary in EU policies such as agriculture, buildings and urbanization and energy. In particular, we note that this report states that the EU CAP (Common Agriculture Policy) is the “key driver of farming practices that in many cases have increased water pollution and scarcity”.

The water quality objectives of the WFD are highly ambitious, and **phosphorus is one of the most critical parameters** leading to failure to achieve these objectives (e.g. phosphorus is the most important cause of failure to achieve quality objectives for UK water bodies, other than morphological modifications). Considerable further work is therefore needed to reduce phosphorus emissions, both from municipal wastewater and from agricultural losses. In many ecosystems, eutrophication impacts occur even with very low water phosphorus levels, and this is accentuated by climate change and by the presence of legacy stocks of phosphorus in both soils and aquatic sediments.

We note that phosphorus was added to the **Groundwater Directive** listed substances in 2013 and this should also lead to actions where groundwater levels are identified as significant in RBMPs.



The ambition and objectives of the WFD should be maintained because of the **high social and economic value of water resources**. For example, costs of agricultural nutrient losses in Brittany alone have been estimated to include: €1 million/year for removal of algae from beaches, €70-100 million/year revenue losses for coastal tourism, €120-360 million/year for drinking water treatment (nitrates) and hypothetical clean-up costs for groundwater (nitrates) and surface and coastal waters (eutrophication) as nearly €500 billion and €50 billion respectively (Bio Deloitte “Resource efficiency in practice – closing mineral cycles”, 2014 for DG ENVI <https://publications.europa.eu/en/publication-detail/-/publication/c4e6e51f-18cc-11e6-ba9a-01aa75ed71a1/language-en> )

The water body quality status objectives of the WFD are important for defining water basin level objectives and action plans for reducing phosphorus levels in rivers and lakes, and for defining action plans taking into account all sources: not only those covered by the UWWT Directive, but also **smaller sewage works, non-point sources (such as septic tanks) and agricultural losses, as well as legacy stocks of phosphorus in sediments**.

We note that phosphorus management requirements can, and should where appropriate, be included in **Nitrates Directive Action Plans**, but that the WFD goes beyond this because it also obliges actions where necessary to achieve quality objectives outside the Nitrates Directive Vulnerable Zones. The WFD River Basin Management Plans (RBMPs) enable an integrated approach, including inter alia phosphorus discharge limits lower than UWWT specified levels, use of wetlands or landscaping for runoff abatement, or catchment permitting. This flexibility of approach enabling the most appropriate and cost effective actions (whilst ensuring the “basic measures” of the UWWT and Nitrates Directives) should be encouraged, including e.g. nutrient discharge permit trading.

We support the **EU Court of Auditors recommendations** (special report n°2, 2015) to tighten discharge limits to take account of technological progress, but also to improve cost-recovery to ensure sustainable financing of wastewater infrastructure.

In particular, it should be clarified that “**appropriate**” treatment (**agglomerations < 2000 p.e.**) under the UWWT Directive should ensure phosphorus removal in eutrophication sensitive areas, subject to catchment permitting (see below).

However, we note that the flexibility of the WFD results in ambiguities concerning **how costs are passed on to water users and other stakeholders**, despite the principle of cost recovery indicated in Art. 9. The economic tools needed to enable achievement of the WFD objectives should be clarified and developed, in particular tools enabling full cost recovery for all actions defined in the River Basin Management Plans (RBMPs), and conditionality of farm subsidies and other public funding to implementation of RBMP defined actions (RBMP cross compliance).



Mechanisms need to be developed to **enable cost recovery by farmers** (for food industry, distributors and consumers) of costs related to phosphorus loss mitigation actions, such as balanced fertilization, buffer strips or set aside of phosphorus loss hot-spots, manure treatment or storage, actions to keep livestock out of water courses, ...

We note that addressing eutrophication will in many cases require further reductions in phosphorus emissions beyond current UWWTD requirements, both to reduce water-body phosphorus concentrations, and also to avoid accumulation in sediments. In order to optimise cost-effectiveness and minimise environmental impacts (energy consumption, chemicals inputs) **catchment permitting or catchment level nutrient emissions trading** should be implemented, subject to ensuring that quality objectives are achieved at all points in the catchment.

Achieving lower phosphorus emissions, and phosphorus removal in smaller sewage works, will imply energy consumption, materials and chemicals, and will both increase the quantities and modify the nature of sewage biosolids (dewaterability, nutrient content, chemical content such as polymers, flocculants, reactants). This should be considered when defining phosphorus discharge consents, in particular implications of **valorisation of sewage biosolids** (methane production, return of stabilized organic carbon to soil, nutrient recycling).

We support the WFD overall approach of using **bio-indicators** to assess ecological status of surface waters (see WISER project in <http://link.springer.com/article/10.1007%2Fs10750-012-1438-9#> . However, where RBMPs define a given level of phosphorus in water or discharge P level as appropriate to achieve quality status objectives, this should be given the same legal enforcement and cost recovery consequences as e.g. UWWT Directive limits.

We support the EU Court of Auditors recommendations (special report n°2, 2015) call to require appropriate valorization of sewage biosolids, including energy recovery, **return of stabilized organic carbon to agricultural soils** (important for soil productivity, crop drought resistance and climate resilience, and for the Paris 3/1000 soil carbon objective) and **nutrient recovery and recycling** (phosphorus and nitrogen, micronutrients). This should be included into the WFD objectives, and implemented through conditionality of EU subsidies (as suggested by the Court of Auditors).

ESPP wishes to underline that the following aspects are today inadequately addressed in the WFD

- Phosphorus removal from **legacy stocks** in sediments and in lakes
- **Soil carbon restoration**, for water retention (flood retarding, drought resistance) and nutrient retention (soil fertility, run off abatement)
- Explicit inclusion of aquatic **biodiversity objectives**, e.g. for wetlands, into WFD quality objectives and consequently RBMPs
- Development of the **circular economy for nutrients and organic carbon**, in synergy with discharge abatement policies



ESPP emphasises that **further data collection and research** is necessary into:

- phosphorus and nitrogen flows in municipal sewage / sewage treatment / biosolids and in industrial discharges
- cost-effective and sustainable removal of phosphorus down to very low discharge limits (including reliability in varying sewage works operation conditions, storm flows) and removal of phosphorus in small sewage works, taking account impacts on biosolids production and valorisation
- levels of, risks, fate in treatment and in soils of organic contaminants in sewage biosolids valorization (pharmaceuticals, perfluoralkyl substances, household chemicals ...). See the joint position between ESPP – EEB – Eureau and others attached below
- eutrophication restoration of water bodies
- climate change impacts on eutrophication risks, and related possible “tipping points”, linked particularly to possible release of legacy stocks of phosphorus from sediments
- catchment permitting / nutrient emissions trading, including both point and diffuse emissions
- cost recovery, especially for agricultural measures for nutrient management, pollution and erosion abatement and aquatic biodiversity restoration
- update of information tools for local decision makers and farmers on actions for mitigation of agricultural nutrient losses (see <http://www.cost869.alterra.nl/dbase/default.aspx> )

*The European Sustainable Phosphorus Platform (ESPP) brings together a range of industry sectors and stakeholders concerned with sustainable phosphorus management, for which core aspects are reducing phosphorus losses to the environment (eutrophication) and developing phosphorus recycling.*