Aggerverband ▪ Bergisch-Rheinischer Wasserverband
Erftverband ▪ Emschergenossenschaft ▪ Linksniederrheinische
Entwässerungs-Genossenschaft ▪ Lippeverband ▪ Niersverband
Wasserverband Eifel-Rur ▪ Ruhrverband ▪ Wupperverband

Arbeitsgemeinschaft der
Wasserwirtschaftsverbände
in Nordrhein-Westfalen

agw-Position paper on the proposal for a Directive of the European Parliament and of the Council amending Directives 2000/60/EC and 2008/105 as regards priority substances in the field of water policy COM(2011) 876 final, 31.01.2012

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The Water Board Association (**agw**) in the German State of Northrhine Westfalia (NRW) comprises the regional water boards: Aggerverband, Bergisch-Rheinischer-Wasserverband, Emschergenossenschaft, Erftverband, LINEG, Lippeverband, Niersverband, Ruhrverband, Wasserverband Eifel-Rur and Wupperverband. We operate on the principle of 'open responsibility for public water management'. As members of the **agw**, we are responsible for water management in an area covering almost two thirds of the NRW region, in which we operate 310 water treatment plants to serve approximately 19 million inhabitants. We also manage 29 dams and a river network of 17,700 kilometres.

Preliminary Note:
The **agw** generally welcomes the EU-Commission's initiative to extend the list of priority substances and the Environmental Quality Standards (hereinafter EQS) specified therein in light of new technical and scientific findings. This includes a proposed increase in quantity for 6 substances in the current list and the inclusion of a further 15 additional substances.

The **agw** questions the reasoning behind the inclusion of naturally occurring substances in the list. We are particularly concerned about the partially inadequate data and standard of data quality and the selection of assessment factors on which the EQS are based. We, therefore, propose that certain substances be placed on the 'Watch list' until such time that adequate data is available to create a solid and reliable environmental quality standard.

The **agw** requests that the EU-Commission, the European Parliament and the European Council eliminate the substantial deficiency of technical data in the draft proposal and requests that the aforementioned European institutions consider the comments and suggestions of the **agw** in the course of the consultation.

agw comments as follows in response to the proposed Directive:

1. **agw- questions the practicality and purpose of including naturally occurring or produced substances in the list**

agw Statement:
The list of proposed substances includes **17-beta-estradiol (no. 47).** This substance is the natural female hormone, which is also an ingredient in certain medicinal drugs. According to the literature references, 90% of the measurement values recorded in waters concerns the naturally produced hormone.

The second example relates to **polyaromatic hydrocarbons (no. 28),** for which the quality targets have been made considerably more stringent. One can assume that these substances result from combustion processes, such as forest fires, which can also be naturally occurring in origin, and enter into the natural environment through diffuse sources. The industrial use of products containing polyaromatic hydrocarbons (PAH), such as coal tar, has been widely prohibited for years.

It is questionable as to whether such substances should be included in the list at all. In the view of **agw,** there is no technical, scientific basis on which to justify the inclusion of naturally occurring substances. The same applies to a lesser extent for the heavy metals **Lead (no. 20)** and **Nickel (no. 23).** Waterways can be polluted by geogenically determined levels of lead and nickel. Based on the considerably more stringent quality levels stipulated in the draft proposal, it makes sense to establish provisional targets for both substances based on preexisting concentrations to account for background presence and geogenically determined levels. Otherwise many of the European water bodies will find themselves unavoidably exceeding quality levels.

2. The derivation of EQS for lead, nickel, PFOS, 17 alpha-ethinylestradiol, 17 beta-estradiol and diclofenac is inadequate and fundamentally called into question

agw Statement:
The proposal to introduce a considerably more stringent limit for **Lead (no.20)** comes only 4 years after the first Directive on priority substances entered into force. The SCHER Report (May 2011), offers no justification for reducing the EQS for lead from 7.2 µg/l to 1.2 µg/l. The report only refers to a need to consider bioavailability and at the same time, criticises the lack of sound data basis. The derivation of new EQS is manifestly deficient, as the previous value of 7.2 µg/l for lead (2008 Directive) already accounts for bioavailability.

A comparable error is also apparent for the tightening of EQS for **Nickel (no. 23)** from 20 µg/l to 4 µg/l. For this reason, the **agw** requests that the EU-Commission checks the proposed values for lead and nickel. As **agw** reinforces in point 3 of this position paper, it is crucial to be able to draw upon a scientifically sound data basis to establish proposed concentration values.

In the view of **agw**, the method of deriving EQS for **PFOS (no. 35)** in the SCHER Report (May, 2011) is not plausible. A recalculation of EQS for waterways with effects on biota, with additional assessment factors lacking adequate data (for e.g., the influence of water parameters such

as pH-value, salinity and total organic carbon content), results in a purely mathematical, very low EQS of 0.000,00065 milligrams per litre. This concentration is so low that it cannot be reliably detected or measured using currently available analysis methods. As **PFOS** are ubiquitous, this would lead to unavoidable exceedances of limits set for priority substances in many waters. Apart from a so-called 'phasing-out', there are no other measures which can achieve such a low concentration in the long term. Please refer to our statements in points 3 and 4 of this position paper.

As regards the parameters for **17 alpha-ethinylestradiol** and **17 beta-estradiol,** please refer to our comments under points 1 and 6 of this position paper. Additionally, the derivation of EQS for **17 alpha-ethinylestradiol** (SCHER-Report, March 2011) includes an assessment factor of 2 for the parameter 'Fish', despite a basis of apparently good quality data. The SCHER also confirms that, as a principle, a good quality data basis should be sufficient for avoiding the need for an assessment factor.

The SCHER-Report (May 2011), regarding a derivation of EQS for **diclofenac (no. 48),** makes surprising and significant contradictory statements regarding the solubility of this substance. The details for solubility vary by a factor of 1800 in the scientific publications. The SCHER-Report makes no sufficient statements regarding the MAC values in waterways or regarding bioaccumulation. For deriving the annual average quality standard, there is, despite claims of good quality data from the authors of the SCHER-Report, a more stringent assessment factor of 10, which actually serves to compensate for a bad quality data.

The derivation of factors is apparently very subjective and therefore basically makes the proposed values vulnerable. We therefore suggest that **diclofenac** also be included in the 'Watch list', until such time that the issue of contradictory data can be clarified.

3. Substances with a assessment factor greater than, or equal to 5 should remain on the 'Watch list' until sufficient ecotoxicological information is available for deriving a reliable environmental quality standard

agw Statement:
As compliance with the EQS may indeed require the measures addressed in point 7 of this position paper, and given that according to **agw**'s initial calculations, such measures will potentially require Billions in financial investments, it is crucial, that the data, on which the derivation of EQS is based, proves to be scientifically accurate and statistically reliable. This means that an assessment factor no greater than 5

should be used – ideally the target should be an assessment factor of 1. In cases where the base data is inadequate, the substances in question should be placed on the 'Watch list'.

It is generally questionable whether, and in what way, an improved data basis for assessment factors will ultimately impact the EQS. It can be assumed that these will become less stringent. Experience shows that it will become challenging for the politically accountable to make established environmental quality standards less stringent based on an improved data situation in the face of a more aware and better-informed public.

4. **There is no standardised analysis procedure for compliance with specific environmental quality standards**

agw Statement:
Some of the new specifications for quality standards are extremely low. By way of example, the proposed annual average permissible concentration for **brominated diphenylethers (no. 5)** is 0.000,000,000,049 milligrams per litre. There is currently no standardised or suitable analysis procedure for measuring such a low concentration for the purpose of implementing the Directive. Similarly, for **17 alpha-ethinylestradiol** und **17 beta-estradiol**, the currently available analysis procedures are only able to detect limits 20-times higher than the EQS proposed for these substances.

5. **Permissible annual average values and maximum allowance concentration are not coherent for some parameters**

agw Statement:
The annual permissible average value for some selected parameters is not coherent with the associated maximum allowable concentrations (MAC value). In which case, a single sample of **brominated diphenylethers (no. 5)** could easily comply with the concentration levels stipulated for the maximum allowable concentration, and yet greatly exceed the permitted average annual concentration.

Conversely, for **Anthracene (no. 2)** and **Mercury (no. 21)** the values are identical, or almost identical. The **agw** requests that the Commission checks the accuracy of the values for these categories.

6. **The proposed new substances are not coherent with the existing EU-Guidelines for accompanying measures**

agw Statement:
In its position paper on the Fitness Check for European Water Policy, the **agw** recently criticised the lack of coherence between Directives. This criticism also applies to the proposal to extend the list of priority substances. Although there are accompanying guidelines for measures regarding some substances, for example, authorisation processes for pesticides, or restrictions on the usage of **PFOS (no. 35),** there are also substances included in the list, for which absolutely no guidelines for the protection of waterways exist, for example, the medicinal drug ingredients **17 alpha-ethinylestradiol (no. 46)** und **diclofenac (no. 48)**. In our opinion, it is vital, that there is EU-wide regulation governing such substances, which the EU defines as *priority* substances, to best-manage and stop emissions of polluting substances at their source. It is also proposed, as mentioned, that a compulsory 'phasing out' is introduced for the priority hazardous substance, **PFOS (no. 35)**. It is the responsibility of the EU in its legislative capacity to ensure that European waterways remain free of PFOS emissions and to ensure it is no longer possible to pollute waters with PFOS products.

7. **There is no guideline or proposal for implementing and enforcing the Directive in the Member States**

agw Statement:
In the view of **agw**, there is a further deficiency in the Directive proposal regarding the necessary measures for implementation throughout the European Member States. Aside from the known difficulties of minimising potential substance emissions from diffuse sources, there is a serious problem when priority listed substances are primarily emitted from household or communal water into urban waste water systems. This is particularly problematic where insufficient, or no guidelines for usage or disposal of these substances are provided. Under such conditions, the responsibility for ensuring provisions to enforce the content of the Directive result in the **upgrading of the communal wastewater treatment and potential further empowering of locally responsible authorities to this end** via the so-called fourth treatment (purification) stage, as a possible solution. We request that the European Commission clearly communicates its strategy for the role water treatment plants within the context of this proposed Directive. It was made clear in the last report regarding the implementation of the European Urban Waste Water Directive (January 2012) that even in the course of implementing existing measures there are considerable deficits and imbalances between Member States. In the view of the **agw**, it must be ensured, that the

Directive can be equally implemented throughout all European Member States and not just the few, which assume they are able to comply.

It is also important to respect the polluter-pays-principle and to ensure that measures are implemented as close as possible to the source. In order to enforce the Directive, we expect the EU-Commission to propose a defined, Europe-wide concerted and consistent solution which is consumer-viable and affordable throughout all EU Member States. The **agw** requests that the EU-Commission undertakes to present an estimation of the costs associated with implementing the Directive in the Member States.

It is also unclear whether the processes referred to under the fourth wastewater treatment stage, such as ozone oxidation, the use of activated carbon powder or granules, or nano-filtration for purpose of achieving environmental quality standards, are even sufficient for, or in the wider interests of water management. In this context, there are also the secondary effects to consider, such as the accumulation of toxic byproducts through Ozone, the disposal of concentrates in the nano-filtration process and the significantly increased energy consumption, to name a few. All of which are not in the interests of a coherent Community policy.