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Joint NGO response on the draft guidance document "Hydropower and Natura 2000"

Contacts:

Friedrich Wulf, International Biodiversity Campaigner, Friends of the Earth Europe (FoEE): friedrich.wulf@pronatura.ch

Leonardo Mazza, Senior Policy Officer for Biodiversity, Water & Ecosystems, European Environmental Bureau (EEB): leonardo.mazza@eeb.org

Tobias Schäfer, Water Protection Officer, GRÜNE LIGA Water Policy Office: wasser@grueneliga.de

Joint NGO response on the draft guidance document "Hydropower and Natura 2000"

Dear DG Environment,

We appreciate the opportunity to submit our comments to the draft guidance document "Hydropower and Natura 2000. Good Practice Guide".

Key messages

The undersigned organizations reject the latest draft guidance on hydropower and Natura 2000 as inappropriate: Its significant shortcomings (outlined in more detail below) mean that, at least in part, it can be read as a manual on how to receive a permit for building new hydropower plants, including where Natura 2000 areas may be heavily impacted. It remains inadequate for the purpose of guiding decision making where the ambitious environmental objectives of the Natura 2000 network and the EU Water Framework Directive collide with electricity production through hydropower.

We continue to reject the guidance because in our view it is characterised by:

1. An **overall bias towards energy production** and the absence of **ambition when it comes to achieving the objectives of Natura 2000 and those of the WFD;**
2. Its **failure to clearly prioritise the full implementation of EU environmental law, running the risk of undermining its implementation;**
3. The **replacement of scientific evidence** with **opinion and omission of important evidence,** resulting in a **completely wrong assessment of the impact of hydropower on fish and freshwater ecosystems as well as on climate change mitigation**

All in all, despite the comments we have formulated on the previous draft of the guidance:

4. **Continues to take the wrong perspective**, suggesting that further increasing hydropower generation may take precedence over meeting nature conservation objectives;
5. Continues to **send the wrong message**, suggesting that in most cases hydropower development may be compatible with Natura 2000 and obligations under the WFD.

Finally we also believe that the work on **this guidance should take into account the ongoing work of the WFD Common Implementation Strategy on article 4.7. as it currently appears to be ignoring this process of establishing a guidance on the matter under the WFD CIS.**

These concerns are fundamental and **the undersigned NGOs strongly advise DG ENV not to publish the guidance in its present state,** as this would erode existing environmental legislation and weaken efforts to conserve Europe's rivers.

We continue to reject the guidance because in our view it is characterised by:

1. An **overall bias towards energy production** and the absence of **ambition when it comes to achieving the objectives of Natura 2000 and those of the WFD**

The entire draft still has a strong bias towards hydropower and promoting further generation of electricity from hydropower – taking an ambiguous attitude towards new developments in areas designated as Natura 2000 sites. The introductory chapter suggests that an increase in the share of hydropower in renewable energy production may be just and more important than EU's biodiversity and water policy objectives. In the guidance overall ultimately more emphasis is put on procedures to be followed for building new hydropower plants in compliance with the legislation than on how to retrofit existing dams in order to reduce their impacts on Natura 2000 sites or water quality or how to strategically remove dams in order to improve the state of Natura 2000 sites or meet WFD objectives. The inadequate discussion of other pieces of EU legislation that hydropower needs to comply with, such as the WFD (eg derogation procedures under WFD Article 4.7) or the EU Eel Regulation[1] contributes further to creating the impression that the **guidance is more about facilitating the development of new hydropower than about reducing the impact of hydropower on Natura 2000, protected species and water quality**.

The guidance suggests that derogations for **"imperative reasons of overriding public interest"** under HD article 6.4 can be invoked where there is an **"absence of alternatives"** to a planned hydropower plant whose potential impacts can't be reduced to non-significant levels. It is important that the guide makes clear that, in the case of hydropower development, there are always other alternatives and points to all the alternatives to the deployment of new hydropower, ranging from investment in energy

[1] The hydropower and Natura 2000 good practice guide does not consider the so-called EU eel regulation [Council Regulation (EC) No 1100/2007 of 18 September 2007 establishing measures for the recovery of the stock of European eel] as part of the legal framework. Even if the European eel is not a habitat directive species, the eel regulation is a legally binding regulation to protect this species within and beyond the Natura 2000 network.

This is a major shortcoming as the European eel is critically endangered and as catadromous species that migrates for spawning from the headwaters to the sea especially threatened by hydropower facilities. In German rivers the estimated amount of migratory silver eels killed
in hydropower plants summed up to 283 mt in 2010 (Fladung et al. 2012). According toEC 1100/2007 Member States are obliged to identify and define eel river basins and to set up Eel Management Plans aiming to reduce anthropogenic mortalities so as to permit with high probability the escapement to the sea of at least 40 % of the silver eel biomass relative to the best estimate of escapement that would have existed if no anthropogenic influences had impacted the stock.

Article 2 of EC 1100/2007 explicitly requests:
10. In the Eel Management Plan, each Member State shall implement appropriate measures as soon as possible to reduce the eel mortality caused by factors outside the fishery, including hydroelectric turbines, pumps or predators, unless this is not necessary to attain the objective of the plan.

As the problem of hydropower-induced mortality for eel is at least as serious as for other migratory fish and lampreys listed by the Habitat Directive ignoring this species and the eel regulation at this point would significantly underestimate the environmental impact of hydropower and the need for mitigation.

efficiency to the development of alternative renewable energy sources (wind and solar in particular).

Ultimately the primary purpose of the guidance still appears to be to give guidance on how to install new hydropower plants and deal with some of the legal obligations of relevant environmental legislation. It does not give sufficient guidance on how to improve the ecological situation of Europe's heavily pressured rivers in the face of existing hydropower and other obstacles. In other words, it strives to further increase electricity generation from hydropower but not to achieve the biodiversity targets. ***This creates a strong bias against biodiversity – which is the opposite of what one would expect from a document where the Nature Unit of DG ENV has the lead.***

The guidance needs to be complemented with state-of the art literature on how to best retrofit existing HPPs and build optimal fish passes. The document is not explicit enough on this.
It should focus on improving the ecological situation of our water courses.

2. Its **failure to clearly prioritise the full implementation of EU environmental law, running the risk of undermining its implementation**

The document is far too vague on ecological constraints to hydropower development that are laid out by existing EU environmental law, and thus fails to promote the full implementation of Natura 2000. Full compliance with species protection provisions under the Habitats Directive is also very much neglected in the guidance. It is also striking how little importance the guidance seem to give to obligations under the Water Framework Directive, such as conditions for derogations to be granted under Art. 4.7 WFD.

In light of dozens of controversial cases of highly destructive new hydropower plants and literally thousands of projects planned in Romania, Bulgaria, on the Balkans and in other regions these important flaws could cause a lot of harm. As a result of expected hydropower developments and current trends, we fear a dramatic loss of habitats and species protected under EU and national laws of EU Member States, as well as accession states. By implementing this draft, the EU would almost certainly fail to achieve its nature conservation and biodiversity goals in regard to freshwater biodiversity and riverine and riparian habitats.

The draft guidance fails to clearly acknowledge and emphasize that **hydropower in Natura 2000 sites, particularly the construction of new hydropower plants, will virtually always contradict the EU's conservation objectives and that therefore permits should, most likely, not be issued, according to EU environmental law**. The Habitats directive forbids any deterioration (Art. 6(2)), any project that adversely affects the integrity of a Natura 2000 site (Art. 6(3) **from within and outside of the site**[2]. It also forbids any deliberate disturbance of

[2] In the present draft guideline, the requirements of the Habitats Directive on the loss of land are largely obscured or only roughly described. Nearly every hydropower plant has a considerable impact on the loss of land in Natura 2000 areas. The project "Fachinformationssystem und Fachkonvention zur Bestimmung der Erheblichkeit" (final report, some of them technical conventions - final June 2007 / German Federal Office for Nature Conservation) quoted in the draft guidance (p.74) contains thresholds for significance for any impacts.

these species, particularly during the period of breeding, rearing, hibernation and migration; as well as deterioration or destruction of breeding sites or resting places (Art. 12 (1) b and d).

The Water framework directive demands achievement of a good status for watercourses, which always includes ecological connectivity and – in natural rivers and watercourses – a healthy population structure of the typical fish fauna. The strict procedures laid out in Art. 4.7 WFD need to be applied to all Hydropower plants as they always entail a modification of the physical characteristics of the water body.
Not all of this is properly reflected in the guidance.

3. The replacement of scientific evidence with opinion and omission of important evidence, resulting in a completely wrong assessment of the impact of hydropower on fish and freshwater ecosystems as well as on climate change mitigation

Ignoring the evidence on impacts of hydropower plants on environmental quality and biodiversity the document suggests that construction of a power plant in a river and protecting the same river's ecological value could be "mutually supportive". The adverse impacts of hydropower plants on Natura 2000 sites and water quality are underestimated whereas the effectiveness of certain mitigation measures, such as fish passages, is overstated (ie "building of fish passes at weirs and dams can be a highly effective mitigation measure", p.39). Certain types of impacts of hydropower are also omitted, such as greenhouse gas emissions[3].

HPP Plants, by nature, have large detrimental impacts on the continuity and other important parameters in river ecosystems. Mitigation measures can (and must) be applied to reduce ecological impact, but it is quite difficult to build a well-working upstream fish pass; in practice less than 5% of fish passes work satisfactorily (see figure below). The situation is worse for downstream migration, it is very hard to predict if a downstream fish pass works. So even if the best scientific knowledge is taken into account and the fish pass is well built, the HPP will have a significant negative impact on the river ecosystem and any protected areas, as well as protected species. New HPP never produce win-win situations for fish and electricity.

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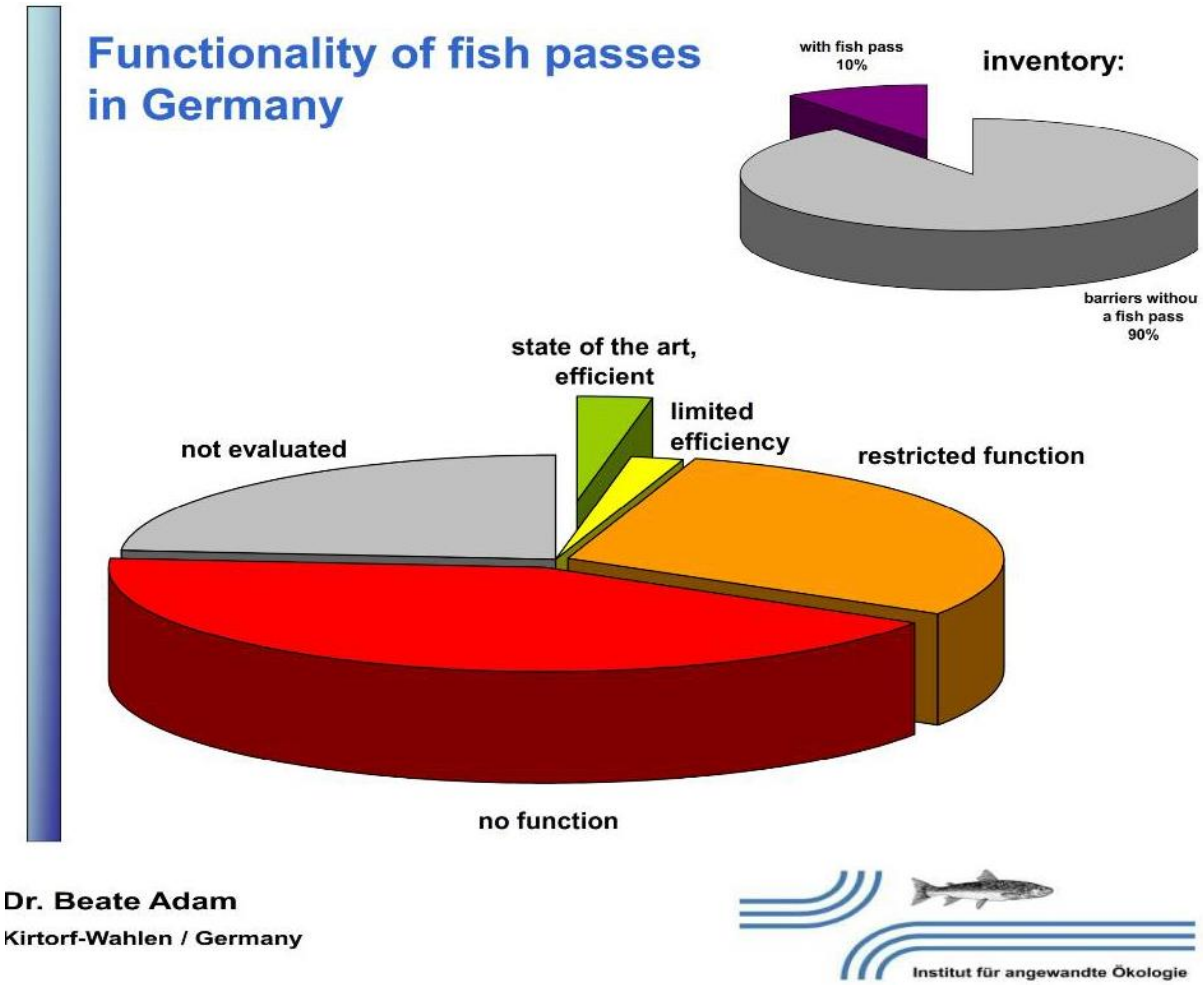
and habitat losses in Natura 2000 areas which are at 25 to 1000m^2 for watercourses (Habitat type 3260); cases related to hydropower always exceed these thresholds and are therefore significant and thus forbidden by threat of penalty under EU directive 2008/99 (Art. 3 h and 5).

[3] HPP reservoirs can emit substantial amounts of Climate gas emissions. An example from the Swiss Wohlensee shows that this lakes emits 780 tons of Methane – see Del Sontro, T. et al. (2008) Wohlensee: Lake Flatulence and Global Warming, EAWAG –Annual Report 2007, Switzerland. Globally, reservoirs are estimated to accountable for 1.3% of manmade greenhouse gas emissions



All in all, despite the comments we have formulated on the previous version the guidance:

4. **<u>Continues to take the wrong perspective, suggesting that further increasing hydropower generation may take precedence over meeting conservation objectives</u>**

Emphasis of the guidance needs to change: it should primarily focus on the mitigation of the impacts of existing hydropower on Natura 2000 and water quality rather than on the process to build new hydropower plants in accordance with the legislation. In the EU only 9% of all 23,000 hydropower installations recorded generate about 87% of the total production, while the vast majority (91%) are small (less than 10 MWH) and generate just around 13% of the total production. In Germany the situation is rather similar, 146 of about 7,700 hydropower installations generate more than 85% of the total production. The guidance should encourage decommission and dismantling of small hydropower facilities of less than 10 MWH. Such policy would, with marginal economic or societal (renewable energy provision) losses, support the urgently necessary rehabilitation of river hydro-morphology across vast stretches of Europe's rivers and streams.

As mentioned above the guidance continues to suggest that in relation to hydropower projects **"overriding reasons of public interest" (Article 6.4 HD)** may be used to justify the

approval of new hydropower plants in the absence of alternatives. This is misleading because there are always alternatives to the building of a new hydropower plant and energy efficiency (retrofitting of existing dams), energy savings or other forms of renewable energy (solar, wind) should always be prioritised over new dams.

5. **<u>Continues to send the wrong message, suggesting that in most cases hydropower development may be compatible with Natura 2000 and obligations under the WFD.</u>**

The draft guidance gives the wrong impression that there is scope for further hydropower development in the EU. Guidance must make clear that if the existing EU legislation is properly applied (given requirements under BHD & WFD) there is very little scope for new hydropower in any of the EU's water courses and in particular no room for new hydropower plants in Natura 2000 sites or in rivers containing Natura 2000 sites or EU protected species. These sites should rather be the nucleus for a network of free-flowing rivers and streams with high ecological value that should be expanded through the decommissioning and removal of ecologically harmful infrastructure. Besides a few references in several boxes, the draft fails to make a significant move in this direction. The way the integrated approach to identify where to build new plants is presented may also convey the false impression that in the EU there is still quite some room for new hydropower plants.

As it stands the document is <u>misleading on this point</u> (intro, chapter 4).

The above mentioned concerns are fundamental and the undersigned NGOs strongly advise DG ENV not to publish the guidance in its present state, as this would erode existing environmental legislation and weaken efforts to conserve Europe's rivers.

European Environmental Bureau (EEB)
Friends of the Earth Europe (FoEE)
Grüne Liga
CEEweb for Biodiversity
Rewilding Europe
Euronatur
Riverwatch
Europarc federation
Danube Environmental Forum (DEF)
European Anglers Alliance (EAA)