



## NUTRITRADE POLICY BRIEF NO 3

# Nutrient Offsets – a potential tool to reconcile growing economy with strict water quality standards

ENVIRONMENTAL POLICIES' goal is to prevent economic activities from polluting the environment and to create incentives for environmentally friendly technological change. Policies to improve and protect water quality in the EU are unified by the Water Framework Directive (WFD, 2000/60/EC). The Weser ruling (C-461/13) of the European Court of Justice strengthened the legal status of WFD-specific water quality standards. If an economic activity increases pollution that poses pressure on critical water quality elements, it cannot be granted an environmental permit.

While the Weser ruling sets the stage for stronger water protection, in the absence of carefully planned adoption, it may generate unnecessary constraints for economic activities. To increase the likelihood that the tighter environmental standards will actually be achieved, innovative regulatory tools are needed. Nutrient offsets utilized in environmental permitting could provide the needed flexibility while safeguarding water quality. While there might be legal room for using nutrient offsets in Finnish permit procedures, such practices are unlikely to emerge without explicit legislative measures. We compare the Finnish legal framework to that in other Baltic Sea countries with respect to the potential of applying nutrient offsets in environmental permitting.

Good water quality is of high value for citizens. While safeguarding *water quality* is imperative, the political and economic realities fit poorly to Weser ruling if it implies that

*economic activities must remain unchanged* in given areas. We must ensure that the critical environmental pressure, e.g. nutrient loading, within a watershed does not increase in total. Stable or decreasing total nutrient loading could be combined with expanding or new economic activities that, as individual sources, increase nutrient loading. For this, we should compensate increases in nutrient loading with similar nutrient reductions elsewhere in the watershed.

Technically, this could be done by utilizing nutrient offsets. The idea is simple: a permit applicant is offered an option to conduct or pay for higher nutrient abatement at other sources within a water body so that the net effect of an activity would be neutral or decreasing. The applicant thus earns nutrient abatement offsets and uses them in the permit procedure.

Such practice would allow for increasing economic activities and promoting economic development strategies, while being in compliance with the Weser ruling. For instance, the EU Bioeconomy Strategy (Innovating for Sustainable Growth, 2012) strives to enhance high value-added production based on renewable biological resources. Also, the Finnish Bioeconomy Strategy (2014) aims to achieve a substantial boost in the bioeconomy sector. Water, fisheries and aquaculture are seen to include considerable blue growth potential although many of the surface water bodies are not in good status in Finland ([www.ymparisto.fi/pintavesientila](http://www.ymparisto.fi/pintavesientila)).

## WHAT IS A NUTRIENT OFFSET?

A nutrient offset typically refers to a verified, certified and registered unit that corresponds to a unit of additional nutrient reduction. There are also specific rules for verifying and measuring the generation of a nutrient offset. Most importantly the offset must generate an additional reduction in nutrient loading, i.e. reduction that would not have taken place otherwise. If nutrient offsets would be used in permitting processes, similar rules and practices should apply.

In relation to environmental permitting activities, there are two potential ways to generate nutrient offsets. First, a nutrient offset could be generated through nutrient abatement in excess of an activity's legal requirements defined by environmental regulations. Second, they could be generated by removing nutrients from a water body, the amount of removed nutrients comprising the offsets. Nutrient offsets require that the effects of the actions taken can be measured and the outcomes verified. Furthermore, the reductions must be additional and they are not supposed to induce new loads elsewhere.

How could nutrient offsets potentially be used in the existing legislative environment in Finland; and what steps should be taken if we want to strengthen their status in the permitting processes?

### Nordic regulation examples

How do existing legal frameworks recognize the possibility to acknowledge nutrient offset in environmental permitting process? While the jurisdictions in Sweden, Denmark and the Åland Islands (autonomous region in Finland) do not mention nutrient offsets as such, they open up for possibilities to earn a permit for an activity by neutralising its net impacts to water bodies. Legislation or legislative proposals in the three jurisdictions allow an operator to

undertake so-called 'compensatory measures' to neutralise nutrient emissions from an activity and, thus, to earn an environmental permit. An activity, however, must take all mitigation measures required under environmental regulation (e.g. use Best Available Technology) before taking advantage of the compensation. The examples suggest that an individual operator may create offsets by oneself or also utilise the offsets created by authorities or third parties.

### Sweden

In Sweden, an environmental permit may be coupled with an obligation to perform or pay for special measures to compensate for the activity's harmful impacts (Miljöbalken 1998:808). Case law has demonstrated that such

measures have to be performed to earn a permit in certain situations (e.g. Mark- och miljööverdomstolen 2005:5).

Recently, the Swedish Government has put forward a government bill on amending national legislation due to the Weser ruling. According to the bill, authorities may not approve activities that may cause deterioration or otherwise jeopardise the achievement of water quality standards of the WFD (Regeringens proposition 2017/18:243 Vattenmiljö och vattenkraft). The bill may create a growing need to utilise the nutrient offsets to neutralise the effects of an activity within a certain surface water body to earn a permit.

#### Denmark

In Denmark, authorities may not permit activities that deteriorate the status of a water body or jeopardise its water quality standards (BEK nr 794 af 24/06/2016). However, a permit may be granted if actions listed in the WFD action programme neutralise an activity's nutrient emissions in the 6-year WFD planning cycle. This increases flexibility of permitting and may create space for the utilization of nutrient offsets.

#### Åland Island

In Åland Island, an investigation on a new Water Act has proposed that a permit cannot be granted to an activity which jeopardises the WFD water quality standards (Kymenvaara & Eklund, *Utredning om en ny vattenlag för landskapet Åland*, 16.12.2017). However, an operator may

take measures that go beyond general environmental requirements or utilise compensatory measures to fulfill these standards. According to the proposal, compensatory measures may be produced by any physical or legal entity and then transferred to the operator.

#### Finnish Law: no explicit mechanism for integrating nutrient offsets in permit procedures

Under the Finnish Environmental Protection Act (527/2014) and Water Act (587/2011), environmental permits are based on broadly prescribed legal thresholds which leave room for discretion by the permit authority. This room could be used to integrate measures related to nutrient offsets into permitting.

In practice, a permit applicant can remove nutrients from a water body or cut emissions to it by voluntarily taking own measures (e.g. fish removals or wetlands building) or through agreements with third parties such as farmers or peat producers. A permit authority could use the measure as a "offset" when deciding on the permit. If an application does not jeopardise the achievement of the water quality standards, a permit can be granted.

New innovative permit practices without clear legal basis would raise questions on legal certainty and on the equal treatment of operators. Examples from Sweden, Denmark and the Åland Islands serve as references for the drafting and evaluating of new legal measures in Finland.

## THE WAY FORWARD: INTEGRATING NUTRIENT OFFSETS INTO PERMITTING PROCESS.

The reconciliation of the water quality standards and economic activities requires careful consideration in Finland. Ambitious water quality targets combined with rigid regulatory tools might become costly and ineffective. Utilizing nutrient offsets could allow sustainable new activities without compromising the implementation of the WFD in the light of the Weser ruling. There are, however, some critical aspects to be assessed before a nutrient offset regulation can be introduced:

- *How to utilise nutrient offset in practice?* The Weser ruling paved the way for nutrient offsets mechanism by stating that water quality standards are legally binding. A nutrient offset can be generated through nutrient abatement in excess of an activity's legal requirements or through actions that remove nutrients from a water body. The nutrient offset mechanism might also require a trading market, especially, if authorities or third parties take measures instead of operators.
- *What are the key legal challenges?* It might be difficult, if not impossible, to oblige third parties to take measures to create nutrient offsets. In addition, current permitting in Finland largely focuses on the operator's emissions instead of the water body specific quality standards. Furthermore, nutrient offset regulation must be reasonable in relation to its cost and supervision.
- *How to ensure that water quality does not deteriorate?* From the viewpoint of the WFD it is necessary that a nutrient offset mechanism leads to verified environmental benefits. Performance must be authenticated in a reliable manner, and the end result should fulfill a requirement of 'additionality' in relation to normal statutory requirements. Ideally, an operator would be liable to demonstrate compliance with these requirements.
- *Who should act first and how?* Swedish, Danish and Ålandic law already provide legal ideas on how nutrient abatement or nutrient removal can neutralise the emissions of an activity. The potential and specific legal implications of these ideas should be thoroughly studied, developed and tested in the Finnish context.

For a comparative outlook, the Swedish, Danish and proposed Ålandic law connect environmental permitting with environmental quality standards. In all of these legal systems, a verified nutrient offset could be used as a tool to measure how nutrient abatement or nutrient removal neutralise the emissions of an activity. We suggest that the design and implementation of such offsets programs is explicitly included in Finnish water quality policy.

### Further information

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