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Content

Introduction

Gabriel Michanek, editor

The eighteenth issue of Nordic Environmental Law Journal includes three articles.

The first article is authored by Sara Kymenvaara, Helle Tegner Anker, Lasse Baaner, Ari Ekroos, Lena Gipperth and Janne Seppälä: *Regulating Antifouling Paints for Leisure Boats – A Patchwork of Rules Across Three Baltic Sea Countries*. The article analyses how the use of antifouling paints for leisure boats is regulated in Denmark, Finland and Sweden. All three countries appear to apply a somewhat fragmented approach to the different matters related to antifouling paints, including environmental quality (e.g. water quality), chemical products (e.g. authorisations or restrictions) and waste handling. The legal systems include considerable gaps. There are also deficiencies as regards supervision and enforcement. The article discusses possible changes, e.g. to encourage private law arrangements and "self-enforcement" by the marinas or boat owner associations.

In the second article, *Vattenrättslig samordning – En studie om ramvattendirektivets möte med nitrat- och avloppsdirektivet*, Henrik Josefsson criticises the Swedish transposition of the Urban Waste Water Directive and the Nitrates Directive for not being sufficiently coordinated with the Water Framework Directive. This lack of integration and coherence can lead to failure in achieving the objectives in article 4 of the Water Framework Directive as regards waste water and nitrates emissions.

The third article, by Hendrik Schoukens, is titled *Saving the Common Hamster from Extinction with the EU Habitats Directive: A Mandatory Recovery Effort, A Remediation of Past Non-Compliance or An Exercise in Futility?* The article focuses on restoration of species strictly protected under annex IV of the Habitats Directive, including e.g. the Common Hamster that in many member states is considered critically endangered. The article discusses, inter alia, if article 12(1) of the directive, may include a positive obligation to foster the recovery of threatened species. Schoukens argues that Member States should aim to restore endangered species to resilient populations of several thousand individuals, which go beyond the so-called 'Minimum Viable Population', and consider reintroduction and habitat restoration measures. Conservation programmes should not exclusively rely on voluntary measures.

Regulating Antifouling Paints for Leisure Boats – A Patchwork of Rules Across Three Baltic Sea Countries

Sara Kymenvaara, Helle Tegner Anker, Lasse Baaner, Ari Ekroos,Lena Gipperth & Janne Seppälä

Abstract

This article analyses how the use of antifouling paints for leisure boats is regulated in Denmark, Finland and Sweden. All three countries appear to apply a somewhat fragmented approach to the different matters related to antifouling paints, including environmental quality (e.g. water quality), chemical products (e.g. authorisations or restrictions) and waste handling. The legislation related to antifouling paints and practices addresses a range of different actors and has varying legal implications on different regulatory levels. The most central actor as to the contamination by antifouling substances is the boat owner using antifouling paints and the context in which this activity normally occurs, i.e. the leisure boat marina or boat club. In the three jurisdictions analysed, environmental quality regulation appears unable to directly oblige either the boat owner or the marina to take sufficient measures and conduct. Environmental protection regulation, including waste legislation, generally excludes smaller leisure boat marinas and boat clubs from permitting and waste management requirements. In product regulation, the authorisation and/or restriction rules of antifouling paints (biocides) function as sort of an 'advance supervision' of chemical safety requirements, e.g. based on leaching rates. But when it comes to actual application of paint on the boat hull, compliance with product instructions/limitations is generally not supervised – presumably due to a lack of resources. Furthermore, environmental requirements for the maintenance of boats are often based on local regulations. From a perspective of compliance and enforcement, further direct regulation of marinas and boat owners on the basis of general environmental protection law, may not constitute the 'silver bullet' to sufficient environmental protection. Another option could be to encourage private law arrangements and "self- enforcement" by e.g. the marinas or boat owner associations.[1]

[1] This work resulted from the BONUS CHANGE project and was supported by BONUS (Art 185), funded jointly by the EU and national funding institutions, including Innovation Fund Denmark, the Finnish Academy and the Swedish Environmental Protection Agency. Within the project three national reports of the national legal framework have been elaborated as well as a report on the EU legal framework. The reports are available at: http://changeantifouling.com/read-more/scientific-articles/ and http://law.handels.gu.se/forskning/skriftserien.

Contents

1. Introduction

The Baltic Sea is one of the largest brackish water environments in the world and is a particularly sensitive environment, for example, due to the slow water exchange with the North Sea and a water retention time of approximately 25 years.[2] The Baltic Sea is also a popular area for recreational boating and it is estimated that it is used by some 3.5 million leisure boats.[3] Most of these leisure boats use toxic antifouling paints to avoid or reduce the colonization and subsequent growth of sessile organisms on the boat hulls (biofouling). The toxic substances are released to the environment from the boats at berth and during sailing, but also when cleaning and maintaining (scraping) the boat hulls. These activities cause a diffuse pollution load, which, in accumulation, leads to contamination of coastal waters as well as of soil and sediments. This demonstrates that regulation of antifouling paints and its associated activities is a multifaceted matter addressing different activities and actors, including boat owners, marinas and harbours. The use of antifouling paints in sensitive marine environments has been heavily debated for decades in the Baltic countries. In particular, the discussions on the use of highly toxic tributyltin (TBT) paints in the late 1980s led to an EU prohibition on the marketing and use of TBT for small boats (less than 25 metres) in 1989[4] and for all vessels in 2002.[5] The TBT-based paints were mainly replaced by copper-based or zinc-based paints, which also are harmful to the marine environment. Such paints may be subject to various restrictions at national level, although they are in principle governed by the EU Regulation on Biocidal Products,[6] which is yet to come fully into operation when the transitional rules expire. The Biocidal Product Regulation addresses the placing on the market of antifouling paints as well as the use of such products. In addition to product regulation, the practices of boat owners and marinas in relation to antifouling paints or alternative measures, as well as the effect of such pollution are regulated by both the EU and the Member States. This is also the case as regards the management of contaminated soils and sediments, which is another important issue.

This article aims to analyse how the use of antifouling paints for leisure boats is regulated in Denmark, Finland and Sweden. While the three countries share some regulatory similarities, e.g. as EU Member States, they also represent different standpoints as regards both antifouling paints and leisure boating. In comparison with

[2] In 2005 the Baltic Sea was designated as a particularly sensitive sea area by the International Maritime Organisation (IMO), see http://www.imo.org/en/OurWork/Environment/PSSAs/Pages/Default.aspx. For further information on the sensitivity of the Baltic Sea, see Magnusson, K. & Norén, K. (2012), The sensitivity of the Baltic Sea ecosystems to hazardous compounds. BaltSens Project. Swedish Chemicals Agency. PM 9/12.

[3] Baltic LINes (2016): Shipping in the Baltic Sea – _Past, present and future developments relevant for Maritime Spatial Planning. Project Report I., p 22.

[4] Council Directive 89/677/EEC of 21 December 1989 amending for the eight time Directive 76/769/EEC on the approximation of the laws, regulations and administrative provisions of the member states relating to restrictions on the marketing and use of certain dangerous substances and preparations.

[5] Commission Directive 2002/62/EC of 9 July 2002 adapting to technical progress for the ninth time Annex I to Council Directive 76/769/EEC on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations (organostannic compounds). The Commission Directive was adopted as a follow-up to the International Convention on the Control of Harmful Anti-fouling Systems (AFS Convention). The ban of the AFS Convention on application the application and bearing of organotin compounds on ships was subsequently implemented by Regulation (EC) No 782/2003 of the European Parliament and of the Council of 14 April 2003 on the prohibition of organotin compounds on ships, OJ L 115, 9.5.2003.

[6] Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products, OJ L 167, 27.6.2012.

Denmark, leisure boating is a much bigger activity in Sweden and Finland,[7] where it is perhaps even part of the national identity or culture. It also appears that antifouling and its environmental consequences is a fairly politically hot issue in Sweden,[8] whereas this is not so much the case in Finland and Denmark. Thus, it is likely that these differences influence the regulatory approaches and instruments in the three countries.

In all three countries, the above sketched background, is reflected in scattered and piecemeal legislation with normative implications in a range of different legal areas, involving both public and private law. Although the EU lays down a fairly comprehensive legal framework as regards chemical products and environmental quality, there is wide room for national regulatory approaches when it comes to regulating, or not regulating, the practices of boat owners and marinas; for example, whether to use strict rules (combined with supervision and enforcement) or to use more informative or voluntary measures.

The article first outlines the relevant governance structures in the three countries. The article then turns to the different regulatory perspectives starting off with the environmental quality regulation which is strongly embedded in EU legislation. Next step is to look into the regulation of the marketing and use of antifouling paint as a biocidal product, i.e. product regulation, which is also heavily influenced by the EU. The article thereafter analyses how antifouling practices of boat owners and marinas are regulated in the three countries, including also the linkages between public and private regulation as well as soft law mechanisms such as information strategies. Finally, the article seeks to identify similarities and differences between the countries and discuss regulatory challenges and options for addressing antifouling concerns. The article does not analyse ownership issues related to marine waters and the seabed, which may influence regulatory options. In general, there is no private ownership for marine waters and seabed in Denmark, whereas this is to some extent the case in Sweden and Finland.[9]

2. Governance structures

This section aims to capture the structural character of the national legal frameworks and the distribution of powers among different authorities related to antifouling of leisure boats. Antifouling issues cut across several pieces of legislation, areas of law and different authorities. This is illustrated by different regulatory approaches regarding matters such as marketing, use and handling of antifouling products. EU and international law is one of the constituents of the regulatory landscape, which can be characterized as fragmented being both multi-layered and cross-sectoral.

2.1 Legal framework

An important point is to what extent the legal framework and the institutional arrangements reflect an integrated approach and whether this has any implications as regards the regulation of antifouling issues. The general legal framework which sets out the governance principles for en-

[7] HELCOM. 2010. Baltic Sea Environment Proceedings No. 123. Maritime Activities in the Baltic Sea An integrated thematic assessment on maritime activities and response to pollution at sea in the Baltic Sea region, p.15.

[8] There has been a number of different campaigns by e.g. Swedish Society for Nature Conservation http://www.naturskyddsforeningen.se/vad-vi-gor/hav/renbatbotten and public debates, such as Syrén, M. *Åsa Romson målar med förbjuden färg*. Expressen. 2014-10-06.

[9] In Finland, coastal and inland water bodies are in private, non-shared ownership. These areas were reserved for common use of adjacent landowners. These areas are technically owned by partition units and managed jointly by the individual owners. Due to post-glacial rebound these water areas can also contain some land-areas by the coastline.

vironmental regulation in the three countries are somewhat different; while Denmark and Finland display a sectoral approach, it appears that Sweden leans towards a more integrated legislative approach.

The Finnish Environmental Protection Act (527/2014)[10] lays down the main principles for environmental protection. Marine environmental issues, chemicals, waste and environmental (water) quality matters are regulated by separate acts.[11] The Danish Environmental Protection Act (1189/2016)[12] deals with pollution issues in general, including waste, in addition to sectoral legislation such as the Marine Environmental Protection Act (1216/2016)[13] and the Chemicals Act (849/2014).[14] Environmental issues are in Denmark also addressed by other sectoral legislation such as maritime legislation, e.g. the Harbour Act (457/2012)[15] according to which harbour regulations may address the handling of antifouling paints. The Swedish Environmental Code (1998:808)[16] is an overarching law applicable to all types of activities and measures. Except for its general rules of conducts, the Code includes specific chapters with provisions on e.g. remediation of contaminated land and water, chemicals and wastes. Although this seems as an integrated legal approach, separate decrees and ordinances issued on the basis of the Code regulate separately the different themes governed by the Environmental Code. These lower level more detailed acts thus share a common legal foundation, but are nonetheless separately regulated.

The picture that emerges is that despite an overarching regulatory framework, the general legal approach is characterised by separate regulation of products, polluting activities and environmental quality; either in higher level acts such as in Finland and Denmark, or by means of decrees and ordinances in Sweden.

2.2 Authorities and other organisations

In all three countries, the legal framework is based on public law where relevant authorities are assigned with (a varying degree of) administrative, supervisory and enforcement powers. Thus, a multitude of authorities are involved in the administration and enforcement of the relevant legislation. Powers are distributed not only among sectoral authorities at national level, but also between different levels of authority at national, regional and local level. The Swedish Chemical Agency, the Environmental Protection Agency, and the Agency for Marine and Water Management all have important functions and may address antifouling issues in different ways. A somewhat similar situation exists in Denmark where the Environmental Protection Agency and the Agency for Water and Nature are the most important national authorities, both as part of the Ministry for Environment and Food.[17] However, the Ministry of Transport and Buildings has powers as regards harbours and maritime issues. In Finland the Finnish Safety and Chemicals Agency (TUKES), the municipalities, the regional ELY-Centers,[18] regional state administrative agencies as well as the Ministry of the Environment and

[10] Ympäristönsuojelulaki (527/2014).
[11] Merensuojelulaki (1994/1415), Merenkulun ympäristönsuojelulaki (1672/2009); Kemikaalilaki (599/2013); Jätelaki (646/2011); Laki vesienhoidon ja merenhoidon järjestämisestä (1299/2004), Valtioneuvoston asetus vesienhoidon järjestämisestä (1040/2006).
[12] Consolidated Act 1189/2016 (bekendtgørelse af lov om miljøbeskyttelse).
[13] Consolidated Act 1216/2016 (bekendtgørelse af lov om beskyttelse af havmiljøet).
[14] Consolidated Act 849/2014 (bekendtgørelse af lov om kemikalier).
[15] Consolidated Act 457/2012 (bekendtgørelse af lov om havne).
[16] Miljöbalk (1998:808).
[17] As of February 2017 the Environmental Protection Agency and the Agency for Water and Nature were merged into one Environmental Protection Agency.
[18] Centre for Economic Development, Transport and the Environment.

the Environment Institute, all have tasks related to antifouling paints.

Private law arrangements and actors may also be relevant. For example, civil associations (e.g. boat owner or marina associations) or private entities (e.g. harbours/marinas) may play a significant role in particular as regards the practices of boat owners and marinas in the use and handling of antifouling products and waste. Examples include the Danish Association of Yachtsmen and the Association of Marinas, who actively supported an information campaign in 2003/2004 and cooperated with the Environmental Protection Agency on a 2003 Action Plan. In Finland the non-profit organisation Keep the Archipelago Tidy[19] has introduced a so-called 'Roope Harbor Programme' which promotes, inter alia, environmentally friendly practices in marinas and among boat owners through information sharing on hazardous paints and their impacts and promotion of alternative boat maintenance methods. In Sweden, the Swedish Yachting Association,[20] together with the Swedish Society for Nature Conservation[21] and other associated organisations, spread information in an effort to reduce the use of toxic biocidal antifouling paints.[22] Furthermore, civil associations and companies (i.e. marinas) may, as mentioned above, establish their own regulations or codes of conduct based on private law arrangements, including their own methods of sanctioning non-compliance, e.g. by excluding boat owners from membership. Nevertheless, such sanctions must be in line with principles of association law and company law.

[19] Keep the Archipelago Tidy (Fi: *Pidä Saaristo Siistinä*): http://www.pidasaaristosiistina.fi/in_english.
[20] Svenska Båtunionen: http://batunionen.se/.
[21] Naturskyddsföreningen: http://www.naturskyddsforeningen.se/.
[22] https://greenantifouling.wordpress.com/2015/02/16/naturskyddsforeningen-propagerar-for-giftfria-alternativ-till-bottenfarg/.

3. Regulating antifouling paints

In this section, different regulatory perspectives relevant to antifouling paints are analysed. Firstly we will look into environmental quality regulation and the extent to which antifouling paints (and residues) are considered a problem from an environmental quality point of view, in particular addressing the regulation of water quality.[23] Secondly, the regulation of the products, e.g. authorisation, marketing and possible restrictions on use of antifouling paints, will be examined. Thirdly, the regulation of potentially harmful or polluting activities of e.g. the boat owners and marinas when handling antifouling paints including waste management regulation will be addressed. The management of soils or sediments contaminated by toxic antifouling paints or residues will be addressed as a separate area of regulation, while finally some general remarks will be made as regards supervision and enforcement.

3.1 Environmental Quality Regulation

The extent to which antifouling paints are addressed in the regulation and management of the quality of the aquatic environment varies in the three countries. The EU Marine Strategy Framework Directive (MSFD)[24] and the Water Framework Directive (WFD)[25] set up a framework for Marine Strategies and River Basin Management Plans (RBMPs) to protect waters and the aquatic

[23] Biodiversity and nature protection legislation, e.g. the EU Habitats Directive, could also be relevant in relation to antifouling paints and specific protection rules may apply to e.g. Natura 2000 areas. This is, however, not analysed in this article.
[24] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, OJ L 327, 22.12.2000.
[25] Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy, OJ L 164, 25.6.2008.

environment in the EU Member States. In order to achieve the environmental objectives of the directives, Member States are obliged take adequate measures.

Antifouling issues belong to the geographical coverage of both the RBMPs and the Marine Strategies, as they generally encompass the coastal waters of a Member State.[26] However, the dividing line is not clear and the main responsibilities as regards Marine Strategies and RBMPs, respectively, may not necessarily lie with the same authority or within the same piece of legislation in the three countries. In Finland, the Water Management Act (1299/2004)[27] and its related decrees[28] implement the WFD as well as the MSFD, but as for the authorities, the regional ELY-centers play an important role as regards the RBMPs, whereas the main responsibility as regards establishing the Marine Strategy lies with the Ministry of Environment and the ELY-centres are responsible for its implementation. In Denmark, on the other hand, the implementation of the Directives has been made by separate legislation for the WFD by the Act on River Basin Planning (1606/2013),[29] and for the MSFD by the Act on Marine Strategy (1203/2016),[30] but the Agency for Water and Nature (now Environmental Protection Agency) is the responsible authority for both the Marine Strategy and the RBMPs. The Swedish Environmental Code generally implements both the WFD and MSFD but specific rules are found in ordinances and decrees. Five regional water authorities are responsible for the implementation of the WFD, while the Swedish Agency for Marine and Water Management is responsible for the implementation of the MSFD.

3.1.1 Environmental Objectives and the Priority Substances

Under Article 5 of the WFD, Member States must divide their national waters into 'water bodies', and every six years, evaluate and classify them according to their environmental status.[31] The overall environmental objective of the Directive is 'good status' by December 2015[32] which includes both the chemical and ecological status of each water body. Consequently, the status of a water body is defined by the poorer of its ecological status and chemical status, which are determined against a classification system containing five status classes for ecological status (bad, poor, moderate, good, high) and two classes for chemical status (poor and good). In other words, both ecological status and chemical status must be good for a water body to fulfill the environmental objective 'good status'.

The classification of chemical status of water bodies is carried out in each country through assessing the concentrations in water bodies of so-called 'Priority Substances' and 'Hazardous

[26] In general, the WFD applies to an area up to 1 nautical mile from the baseline, while the MSFD concerns the seaward side of the baseline of the territorial waters within the jurisdiction of any Member State as defined by United Nations Convention on the Law of the Sea of 10 December 1982 (UNCLOS). Marine strategies may, however, also address issues within the 1 nautical mile from the coast as is the case in all three countries.

[27] Laki vesien- ja merenhoidon järjestämisestä (1299/2004).

[28] Valtioneuvoston asetus merenhoidon järjestämisestä (980/2011), Valtioneuvoston asetus vesienhoidon järjestämisestä (1040/2006), Valtioneuvoston asetus vesienhoitoalueista (1303/2004).

[29] Lov om vandplanlægning (1606/2013).

[30] Bekendtgørelse af lov om havstrategi (Consolidated Act 1203/2016).

[31] Thereafter the main pressures on the water bodies are identified, followed by the adoption of environmental quality objectives and Programmes of Measures (PoMs), with the purpose to achieve those objectives with respect to each water body. The identification of pressures will thus form the basis for formulating appropriate action to achieve the WFD's environmental objective "good surface water status" by 2015.

[32] According to article 4 of the WFD it is possible to extend the deadline to 2021 (and possibly 2027) if certain conditions are met in the RBMP's.

Priority Substances', established at EU level by virtue of Annex II of Directive 2008/105/EC on environmental quality standards (EQS Directive),[33] as well as certain substances deemed harmful at national level. At EU level TBT compounds are classified as hazardous priority substances, while Diuron and Cybutryne (Irgarol) are on the priority list.[34] Among the nationally determined harmful substances copper and zinc are listed in Sweden[35] and Denmark,[36] but not in Finland. In Finland these substances are thus not part of the assessment criteria for chemical status of water bodies. However, article 11(3) (k) of the WFD explicitly requires the Member States to take measures to eliminate pollution of surface waters not only by priority substances, but also to progressively reduce pollution by other substances which would otherwise hinder the achievement of the environmental objectives.

The overall environmental objective of the MSFD is 'good environmental status' (GES) in the marine environment by 2020 at the latest. Under the Directive, Member States must conduct an initial assessment of the current environmental status of its national marine waters and the environmental impact of human activities in them. For the Baltic Sea the determination of GES is carried out jointly by the three countries and other contracting parties to the Convention on the Protection of the Marine Environment of the Baltic Sea Area within the Helsinki Commission (HELCOM), which is the governing body of the Convention.[37] Within HELCOM, Member States have also developed indicators to allow the assessment of the current environmental status and tracking the progress towards achieving GES.

The 11 so-called qualitative descriptors set out in Annex I of the MSFD are used as a tool to determine what GES means in practice and will describe what the environment looks like when GES has been achieved. Descriptor 8 concerns contaminants in the marine environment.[38] Copper and zinc are not used as core indicators for descriptor 8 but are suggested to be used as supplementary indicators providing valuable information for environmental assessment.[39] Under the MSFD, Member States must establish a monitoring programme for the ongoing assessment and the regular update of and development of a Programme of Measures (PoM) for the Marine Strategy, designed to achieve or maintain the environmental targets by 2020.

3.1.2 Antifouling in River Basin Management Plans and Marine Strategies

Whether or not antifouling substances other than TBT (and in Sweden copper and zinc) are

[33] Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy, OJ L 348, 24.12.2008.

[34] Directive 2013/39/EU of the European Parliament and of the Council of 12 August 2013 amending Directives 2000/60/EC and 2008/105/EC as regards priority substances in the field of water policy, OJ L 226, 24.8.2013, p. 1–17.

[35] Havs- och vattenmyndighetens föreskrifter (Regulations from the Swedish Agency for Marine and Water Management) HVMFS 2013:19 (4.2).

[36] Bekendtgørelse nr. 439/2016 om fastlæggelse af miljømål for vandløb, søer, overgangsvande, kystvande og grundvand. A general limit value for copper is set at 1 µg/l for copper and 7,8 µg/l for zinc (including background concentration). According to the RBMPs only copper appears to be related to antifouling, whereas other main sources of both copper and zinc are listed as waste water and run-off, e.g. Vandområdeplan 2015–2021 for Vandområdedistrikt Sjælland p. 19.

[37] Article 6, MSDF.

[38] In relation to descriptor 8, GES means that "concentrations of contaminants are at levels not giving rise to pollution effects", Annex I of the MSFD.

[39] HELCOM, HELCOM core indicators – Final report of the HELCOM CORESET project: http://helcom.fi/Lists/Publications/BSEP136.pdf, p. 38. See also HELCOM, Interim report of the HELCOM CORESET project, Part B: Descriptions of the indicators, http://helcom.fi/Lists/Publications/BSEP129B.pdf, p 203.

considered a pressure on waters in the RBMPs and Marine Strategies is indicative as to whether the contamination of the environment by these substances is considered a significant issue for the obtainment of the environmental objectives. Based on the RBMPs and Marine Strategies, the national water management authorities define which actions should be performed to reach the environmental objectives by means of the PoMs.

The Finnish RBMPs and the Marine Strategy acknowledge that the contamination caused by antifouling paints has an environmental impact, but generally only to the extent it concerns previous use of paints with TBT compounds. The hazardous substances listed in the Hazardous Substances Decree (2006/1022)[40] implementing the EQS Directive are addressed, but again, among these copper and zinc are not listed. When the Finnish marine environment was assessed and the environmental status and indicators of the same was determined, the Council of State defined certain functional objectives by which the marine environment could be improved. Reduction of bottom paints for boats by developing and promoting harmless mechanical cleaning methods and extensively taking them into use was identified as such a functional objective.[41] However, antifouling matters others than the prohibited use of TBT in antifouling paints are not specified in the RBMPs, and although reducing bottom paints was a functional objective in the above mentioned initial assessment, antifouling is not specifically addressed in the Finnish Marine Strategy's recently (2016) adopted PoM.[42]

In Denmark, the article 5-analysis for the marine strategy refers to the possible presence of TBT as well as Diuron and Irgarol, but without more specific indications. It is assumed that the main source of TBT is from handling of harbour sediments. Copper and zinc are also referred to in the analysis, but are not linked to antifouling paints. Organotin compounds as TBT as well as copper and zinc in sediments and biota are also used as indicators for the environmental objectives. There are, however, not yet any environmental quality standards for marine sediments and biota. In the draft PoM[43] it is indicated that by 2020 TBT will no longer significantly affect the potential for achieving a good environmental status and that no further measures are needed. It appears that the draft PoM mainly focuses on land-based sources of pollution. The evaluation and classification of the environmental state of water bodies under the WFD prepared for the second generation of RBMPs identified 63 coastal water bodies in risk of not achieving their environmental objective in 2021 due to the presence of priority substances and or other substances with established environmental quality standards. It was, however, not indicated to what extent pollution with antifouling substances is a concern for the 63 coastal water bodies at risk. Neither the first or second generation RBMPs and the PoMs have addressed issues regarding priority substances from antifouling paints in coastal waters

[40] Valtioneuvoston asetus vesiympäristölle vaarallisista ja haitallisista aineista (2006/1022).

[41] Valtioneuvoston 13.12.2012 päätöksen Suomen merenhoitosuunnitelman ensimmäisen osaan kuuluva aineisto: Meriympäristön nykytilan arvio, hyvän tilan määrittäminen sekä ympäristö-tavoitteiden ja indikaattoreiden asettaminen, 19.10.2012, p. 34. http://www.ymparisto.fi/download/noname/%7B7D23C52C-5EAA-43C3-90A3-FD8797490508%7D/34441.

[42] Ympäristöministeriö, Suomen merenhoitosuunnitelman toimenpideohjelma 2016–2021, Ympäristöministeriön raportteja 5/2016, https://helda.helsinki.fi/bitstream/handle/10138/160314/YMra_5_2016.pdf?sequence=1. General waste management of harbors of any size are identified as an issue subject to improvement in order to "reflect applicable law", but the background to this is not further explained.

[43] Danmarks Havstrategi. Forslag til indsatsprogram, Dec. 2016.

in general. TBT and Diuron are, however, among the indicators used for determining the chemical status of surface water bodies.

In Sweden TBT is considered as one of three substances, which are most problematic in surface waters, thus forming a priority for continuous monitoring.[44] The Swedish Agency for Water and Marine Management has set the limit value for maximum allowable concentration for TBT in surface water to 0,0015 μg/l and as a yearly average 0,0002 μg/l. For bioavailable copper, there is a yearly limit value in surface water of 2,6 μg/l for the North Sea and 0,87 μg/l for the Baltic Sea.[45] The corresponding limit values for zinc have been set to 3,4 μg/l for the North Sea and 1,1 μg/l for the Baltic Sea.[46] In the first RBMP no specific measures were decided in relation to substances in antifouling paint. In the second RBMP, several agencies are requested to further focus on supervision, provide guidelines and further develop policy instruments in order to decrease the levels of e.g. TBT, copper and zinc in order to achieve the environmental quality standards. Further establishments of boat hull brush washes and designated wash down areas are examples of measures that are anticipated.[47] In the initial assessment of the marine environment under the MSFD, the use of antifouling paints is identified as a pressure affecting biodiversity due to the effects of substances such as copper, Irgarol and TBT.[48] However, in line with the core indicators of the above mentioned HELCOM CORESET project, copper and zinc are not used as indicators for descriptor 8, *concentration of contaminants in the marine environment*, while TBT is included due to its inclusion as hazardous priority substance listed in Annex X of WFD.[49] The PoM requires the Environmental Protection Agency, in association with the Swedish Transport Agency, to examine the current levels of TBT in harbours and the marine environment and also to examine the source of the pollution. Further, the current instruments to decrease levels of toxins are to be evaluated.[50]

3.1.3 Legal Status of RBMPs and the Marine Strategies

If the RBMPs and Marine Strategies should have real influence on water management in the member states, it is important to identify their legal status and effect in the national legal systems. A distinction can be drawn as regards the binding, in contrast to non-binding status of the plans as well as regards the environmental objectives and the PoMs. Another distinction relates to what actors are addressed, for example, different public authorities or citizens, and in what way. At EU level, the Court of Justice of the European Union has in the ruling regarding dredging of the Weser River in case C-461/13 Bund für Umwelt und Naturschutz Deutschland, stated that the environmental objectives of the WFD (and the RBMPs) are legally binding in the sense that *"the Member States are required – unless a derogation is granted – to refuse authorisation for an individual project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical*

[44] Naturvårdsverket; Övervakning av prioriterade miljöfarliga ämnen listade i Ramdirektivet för vatten, rapport 5801, p. 2, 80.
[45] HVMFS 2013:19.
[46] Ibid.
[47] Vattenmyndigheterna i samverkan. *Förslag på åtgärdsprogram för Södra Östersjöns vattendistrikt*, p. 102.
[48] Havs- och vattenmyndigheten. *God Havsmiljö 2020 – Del 1: Inledande bedömning av miljötillstånd och socioekonomisk analys*, rapport 2012:19, p. 245.
[49] Ibid., p. 331–332.
[50] Havs- och vattenmyndigheten. *God Havsmiljö 2020 – Marin strategi för Nordsjön och Östersjön. Del 4: Åtgärdsprogram för havsmiljön*, rapport 2015:30, p. 31. CHANGE project is in this document (p.177) referred to as the regional coordinator in measures concerning TBT.

status by the date laid down by the directive."[51] While this is a clear statement on the binding character of the environmental objectives in relation to authorities administering permit procedures, it does not clearly address activities which are not subject to an authorisation or permit procedure.

In Finland, individuals and companies cannot be obliged directly on the basis of the RBMPs which are approved as administrative decisions, and as such they do not come with direct legal implications.[52] However, in reality the plans have significantly impacted permitting decisions in Finland despite of their legal status.[53] On the other hand, this indirect effect concerns only large-scale activities subject to a permit requirement, not leisure boat marinas as small-scale activities. Therefore, the RBMPs do not come with legal implications for antifouling activities in leisure boat marinas. Finland has not yet officially put forward amendments in the applicable legislation as a consequence of the Weser judgment although the judgment's interpretation of the (binding) character of the WFD environmental objectives is not reflected in applicable law.

In Denmark, the RBMPs and marine strategies do not impose rights and obligations on individuals and companies either. In fact, it has now been made clear that the RBMPs as such are merely informative documents. Nevertheless, it is still possible to appeal the adoption of the RBMPs on procedural grounds. The environmental objectives and the PoMs are for the 2nd generation RBMPs published as decrees (or statutory orders). This does not, however, make them directly binding upon individuals and companies, but only upon the authorities. It is emphasized in the preparatory works to the Act on River Basin Management Planning that the environmental objectives are only binding as regards the measures specified in the PoM. The wording indicates reluctance in seeing the environmental objectives as generally binding for all public administration, but rather as objectives when designing the PoM. However, the Nature and Environmental Appeals Board seems to consider the environmental objectives as binding in accordance with the Weser-ruling, and in the Statutory Order on Programmes of Measures,[54] the measures and objectives are established as a binding reference for permits etc. granted by the authorities.

In Sweden, the programmes of measures (both RBMPs and marine strategies) are not legally binding in relation to individuals and companies; instead authorities are bound to implement environmental quality standards (EQS) and PoMs. Only chemical EQSs have a clear legal effect,[55] while ecological EQSs have not and are thus not sufficiently implementing the WFD as interpreted by the Weser ruling.[56]

3.2 Product Regulation

Chemical substances are generally subject to fully harmonized EU legislation, e.g. as reflected in the REACH Regulation (EC) No 1907/2006. A specific Biocidal Products Regulation (BPR)[57] ap-

[51] C-461/13 *Bund für Umwelt und Naturschutz Deutschland* (para. 51), ECLI:EU:C:2015:433.

[52] According to the Constitution of Finland (731/1999), Section 80, only acts passed by the parliament can lay down obligations for individuals and businesses.

[53] Instead, the plans are "taken into account" within the permitting procedures under the Water Act and the Environmental Protection Act, and by state and municipal authorities in their activities as applicable. See for example the following cases of the Supreme Administrative Court of Finland, 2010:32, 2010:1869 and 2014:176.

[54] Bekendtgørelse nr. 794/2016 om indsatsprogrammer for vandområdedistrikter.

[55] MIljöbalken, Chapter 5, Section 2, p. 1.

[56] MIljöbalken, Chapter 5, Section 2, p. 4. Olsen-Lundh, C. 2016. Panta rei – om miljökvalitetskrav och miljökvalitetsnormer. Havsmiljöinstitutet.

[57] Regulation 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products, OJ L 167, 27.6.2012, p. 1.

plies to biocidal products, i.e. chemical products that are used to control unwanted organisms, laying down evaluation and authorisation requirements at EU and national level. Furthermore, the EU legislation has restricted the marketing and use of some of the most toxic substances, including TBT. In particular, EU Regulation 782/2003 in accordance with the International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS Convention) prohibits the application or reapplication of biocidal organotin compounds on leisure boats as from 1 July 2003.[58] Furthermore, as from 1 January 2008 ships with organotin antifouling must bear a coating that forms a barrier to the leaching of organotin compounds. Regulation 782/2003 is directly applicable in the Member States and must thus be complied with by boat owners.

Antifouling paint is a biocidal product governed by the BPR. The BPR lays down an EU procedure for evaluation and authorisation of active substances combined with a national authorisation of antifouling paints.[59] However, the BPR as well as its predecessor the Biocidal Products Directive[60] contains transitional provisions allowing the Member States to maintain national practices up to three years after the active substance has been authorised at EU level. This means that so far, there has not been an absolute EU requirement of national authorisation procedure for antifouling paints. It is, however, prohibited to allow marketing of new biocidal products if the active substance has not yet been subject to evaluation at EU level. Due to the transitional rules different forms of product regulation may exist at Member State level, i.e. an authorisation approach or a restriction approach. While Denmark has chosen the latter, Sweden and Finland both apply an authorisation procedure.

After the expiry of the transitional rules the Member States must adopt an authorisation approach in accordance with the BPR. It remains to be seen, however, to what extent national variations as regards authorisation of biocidal products will be allowed under the BPR. The Member States will be able to derogate from the mutual recognition rules e.g. with reference to environmental protection concerns.[61]

3.2.1 Product authorisations

Sweden has applied a procedure for authorisation and notification of biocidal products, including antifouling paints, since the 1970's. In 2016 a total of 45 antifouling paints have been authorized and 27 of those products were authorized for leisure boats. However, only 16 products are allowed for leisure boats with main mooring point on the east coast (Baltic coast) and no products are authorized for use in the Gulf of Bothnia and inland waters. Based on the Chemicals Act,[62] Finland also has an authorisation procedure for biocidal products, including antifouling paints, which refers to the substantive provisions of the Biocidal Products Regulation. On 1 January 2016, 15 antifouling products (biocides) for consumer use were listed as approved products in Finland.[63]

Denmark has chosen to use the transitional measures of both the Biocidal Products Directive and the Biocidal Products Regulation and

[58] Regulation (EC) No 782/2003 on the prohibition of organotin compounds on ships.

[59] Antifouling paints are specified as product type (PT) 21.

[60] Directive 98/8/EC of the European Parliament and of the Council of 16 February 1998 concerning the placing of biocidal products on the market.

[61] Art. 37, see Nilsson, J. & Gipperth, L., Antifouling for leisure boats in the Baltic Sea. A review of the European Union chemicals and water legislation, 2015, available at http://law.handels.gu.se/forskning/skriftserien.

[62] Kemikaalilaki (599/2013).

[63] Tukes, Luettelo sallituista kiinnittymisenestoaineista, 7 January 2016: http://www.tukes.fi/Tiedostot/Kemikaalituotteet/biosidit/Luettelot/AF_luettelo_070116.pdf.

has maintained the existing national rules until active substances are authorised at EU level. The existing authorisation procedure for biocidal products has not included antifouling paints. This means that in Denmark there has not yet been an authorisation requirement for antifouling paints.[64] On the other hand, Denmark has restricted the marketing and use of different substances in antifouling paints, see below.

The different approaches when implementing the EU biocidal products legislation makes it quite difficult to compare the legislation in the three countries. There are, however, some similarities despite the difference in choosing an "authorisation approach" or a "restriction approach." In Sweden antifouling paints are only authorised for boats weighing at least 200 kg. A similar restriction exists in Denmark as it is prohibited to import, sell and use any antifouling paints on leisure boats in saltwater, if the boat weighs less than 200 kg (unless it is a wooden boat or it has a berth in an A or B port).[65] In Finland there are no restrictions as to the size or weight of the boat. However, the use of antifouling paints is not allowed in Finnish inland waters.[66] As for the use of authorised paints in Sweden and Finland, the boat owner shall comply with the product's instructions of use and any restrictions on use of antifouling paints as established by authorisation procedures or otherwise.[67]

3.2.2 Specific product restrictions

In particular copper-based paints can be subject to specific restrictions. In Denmark it is prohibited to import, sell and use antifouling paints that release more than 200 μg copper/cm^2 within 14 days and 350 μg copper/cm^2 within 30 days. A similar maximum leaching rate of 15 μg/cm^2/day is used in Finland as part of the risk assessment in the authorisation procedure for antifouling products. Sweden also applies specific criteria regarding copper(I)oxide concentrations as part of the authorisation procedure.[68]

In Denmark the import, sale and use of Irgarol paints is also prohibited and Diuron is not allowed on the market as it is not subject to an evaluation at EU level. A general ban for leisure boats of all paints that release substances with risk phrase R53 ("may cause long-term adverse effects in the aquatic environment") will apply with effect from January 2018.[69]

In Finland and Sweden restrictions on the use of antifouling products can be part of the authorisations and are at least in Finland directed at the permit holder, i.e. the actor placing the product on the market. Some Finnish restrictions are that leisure boats cannot be spray painted (i.e. only brush and roller application is allowed). In Finland, supervision by Tukes, the biocide authorisation agency, is directed at the permit holder who is the regulated actor in the product authorisation procedure and will predominantly seek to assess whether the limitations and restric-

[64] A notification and registration is, however, required for biocidal products containing active substance that are subject to assessment, cf. Statutory Order 151/2014 (Bekæmpelsesmiddelbekendtgørelsen).

[65] For boats that predominantly sail in freshwater a general prohibition of antifouling paints apply, cf. Statutory Order 1429/2014.

[66] Still, some municipal regulation concerning antifouling-products does exist even in some inland municipalities.

[67] The Finnish Chemicals Act (599/2013), Section 35; Swedish Environmental Code (1998:808) Ch. 14, section 8 and the Regulation on pesticides from the Swedish Chemical Agency (KIFS 2008:3).

[68] The calculations are based on the so-called MAMPEC model, see also European Commission Joint Research Centre; Technical Guidance Document on Risk Assessment, pp. 99–106 and the Biocidal Products Regulation Annex VI.

[69] Originally the ban was set to enter into force in January 2003 (Statutory Order 761/1991), but it has now been postponed five times with reference to the delays in the EU procedures for authorising active substances.

tions, issued in connection with authorisation, are complied with.[70]

3.3 Environmental Protection Regulation – marinas and boat owners

From the perspective of direct regulatory control of polluting activities, the practices or activities of boat owners, boat clubs or marinas fall into different categories. Firstly, it is relevant to look into the general environmental protection legislation and particularly examine the extent to which an environmental permit is needed for a marina or other facilities for leisure boats. Secondly, handling of waste – both solid waste and wastewater – is an important issue if harmful substances are at stake. A further refinement of rules can thereafter be made; the regulation of the boat owners' conduct and/or marina activities may be subject to both public law in the form of acts, decrees or executive orders, but also to private law arrangements, for example, rules of association and codes of conduct. These different types of rules imply that antifouling activities are subject to rules of varying legal character and degrees of compulsion – and in particular different levels of supervision and control.

Boat owners' antifouling practices would in addition to use (application) of the actual paint also cover both the maintenance of the boat and related waste management (i.e. scraping off old paint and handling of dust and scrapings). The leisure boat marina and the boat club are as regulated actors subject to legal requirements on a varying scale in the three countries. From the perspective of addressing adverse impacts of antifouling paints, a variety of rules are relevant. It should also be kept in mind that EU Regulation 782/2003 imposes directly applicable obligations upon boat owners as regards the use of TBT as well as regards the coating of boat hulls previously painted with TBT paints.

In addition to public and private law requirements, soft law instruments such as eco-labelling schemes may also address antifouling activities. This is the case in relation to the Blue Flag Marina programme promoting an environmental code of conduct for boat owners.[71]

3.3.1 Environmental permits and wastewater regulation

Environmental permits might be one way of regulating polluting activities in marinas or harbours by means of, for example, a comprehensive and integrated permit covering all (or almost all) pollution issues, or in the form of separate permits for specific pollution issues, e.g. wastewater.

In Finland, leisure boat marinas as in contrast to industrial harbours, are not subject to a permitting requirement or other equivalent normative control under the Environmental Protection Act (527/2014). The Act contains an unconditional prohibition of soil and ground water contamination.[72] This is not, however, connected to substantive requirements with regard to antifouling paints. The Environmental Board of a municipality may, however, on the basis of the Environmental Protection Act, issue municipal environmental protection regulations which relatively often cover boat maintenance and waste management of paint scrapings and dust.[73] These

[70] The Finnish Chemicals Act (599/2013), Section 30 and Chapter 7.

[71] See http://www.blueflag.global/marinas-1/

[72] The Finnish Environmental Protection Act (527/2014), sections 16 and 17. In theory, even marinas might need a permit (based on Finnish Environmental Protection Act 27 § 2, because they can cause water pollution. Still permits for marinas have not been required in practice.

[73] For example, environmental protection regulations of Helsinki, Porvoo and Parainen. Approximately 2/3 of coastal municipalities in Finland (n=62) have municipal environmental protection regulations. In addition to these, the Åland island has 16 municipalities with none municipal or regional environmental protection regulations. In 20 municipalities (mostly South Coast) address

may, for example, specifically address the manner of boat maintenance to avoid paint scrapings and dust to end up in the environment. The municipal regulations seem to be quite extensive, though from a legal perspective, rules tend to be quite vaguely formulated. Washing may be allowed if it is ”non-professional”, ”occasional”, ”does not cause harm to the nature or the neighbours” and when the paint is being scraped, the dust shall be collected ”as far as possible” or the amount of dust which ends up to the nature shall be ”minimized”. The supervision of use is the task of the municipal/town environmental protection authority if specific environmental protection regulations addressing antifouling practices have been issued.[74]

In Denmark, there is no general environmental permit requirement for leisure boat marinas either. However, separate permits may be needed, e.g. for wastewater discharges, and local harbour regulations may also include rules on polluting activities, see below. Furthermore, the establishment of a marina will be subject to EIA requirements and possibly an assessment of the potential impact on Natura 2000-sites. It is mainly spatial planning interests and the protection of the coastline and coastal waters that are taken into account when deciding on new facilities not connected to existing harbours or marinas.

In Sweden marinas are neither required to acquire a permit or notify authorities of its environmentally hazardous activity. They are, however, obliged to adhere to the general rules of conduct and fulfill the requirement to control their operation. This means that marinas and boat owners are required to have sufficient knowledge about the environmental effects of their activities and take precautionary measures to avoid or at least minimize these effects. Commercial marinas also need to prove that they use the best technique economically feasible.[75] The local municipal committee is responsible for supervision of the application and use of the antifouling paints.[76] Each municipality is autonomously organised and due to the lack of specific national rules or guidelines for marinas and boatyards, except for the target values for wastewater from wash down areas, the supervision and assessment may vary considerably. Currently, regional environmental cooperation exists for twelve different regions in Sweden between different local authorities serving as a forum to harmonise the practice and assessment.[77] The general ban of discharge of wastewater may also affect marinas but there is a possibility to obtain a wastewater permit.

3.3.2 Waste Management

General waste management is regulated in EU Member States level through implementation of the Waste Directive. In addition, a specific Directive on port facilities for ship-generated waste[78] sets a requirement to establish a waste handling plan for ship-generated waste. This does not, however, apply to antifouling substances. Under Finnish waste law, the operator of a harbour or an area for public recreational use is obliged to

antifouling activities, while the rest settle with regulating washing boats and other vehicles.

[74] In a recent inquiry (Janne Seppälä 2016–2017, unpublished [yet]), the municipal environmental officials have been asked how often they get questions from citizens or how often they do supervision visits to the marinas concerning antifouling-activities. The answers varied mostly from never to once a year. From that perspective the tone of rules is appropriate.

[75] The Swedish Environmental Code (1998:808), chapter 2 section 3 and 7.

[76] Miljötillsynsförordning (2011:13), chapter 2 section 31 p. 5.

[77] See www.miljosamverkan.se/Sv/om-miljosamverkan/Pages/default.aspx.

[78] Directive 2000/59/EC of the European Parliament and of the Council of 27 November 2000 on port reception facilities for ship-generated waste and cargo residues, Official Journal L 332, 28/12/2000 P. 0081 – 0090.

arrange for sufficient waste collection and other waste management services in respect of the normal activities conducted in the area. This obligation gives effect to the littering prohibition in Section 72 of the Finnish Waste Act (646/2011)[79] which prohibits the release of waste (which is deemed to include scrapings of antifouling paints) with a risk to injure humans or animals or cause any other comparable risk or inconvenience. The Waste Act also lays down certain general obligations as to the treatment of waste; for example, the collection of waste cannot lead to emissions causing a risk of contamination of the environment.[80] This would imply an obligation on the boat owner, but it is very difficult and ineffective to supervise compliance of individual boat owners. As mentioned above local environmental protection regulations may include rules as regards antifouling practices.

In Denmark the general waste regulation is supplemented by local regulations for harbours and marinas in accordance with the Harbour Act. The standard regulation on the use of Danish marinas and small fishing harbours, includes rules for the boat owner when maintaining the boat. According to this repair work should always be done in accordance with environmental regulations, and the waste produced from the work must always be collected and disposed of in accordance with the instructions of the marina and the environmental regulations. Cleaning of vessels that are painted with biocidal antifouling paints may only be done in designated areas if available. It is common, that the marinas provide further guidelines on how to handle dust and scrapings on their websites. There are also examples of marinas that set more strict requirements concerning dust and scrapings, where only equipment and methods approved by the board of the marina are allowed.

In Sweden the general rules of consideration in the Environmental Code require both individual boat owners as well as marinas to take precautionary measures to minimize the risks of waste. Paint residues, sludge and other materials from scraping and cleaning boat hulls containing hazardous substances, must be treated as hazardous waste and needs to be disposed by an authorised company. The Swedish Agency for Marine and Water Management guidelines for wastewater includes target values for substances that may be emitted from the hull such as TBT, copper and zinc. Marinas are also required to develop a waste management plan, in which it is declared how much e.g. paint residues it will handle and how this waste is taken care of.[81] National grants have been provided to applying municipalities and non-profit associations for wash down areas and stationary boat hull cleaning devices.

3.3.3 Rules of Association, Codes of Conduct

In addition to public law rules, a boat owner mooring in a marina may be subject to regulations or codes of conduct established by the marina itself or by boat clubs/associations, particularly regarding the practices related to boat maintenance and waste management. A marina may be interested to set internal rules as it may be liable for pollution caused by boat owners. In comparison with the public rules supervised and enforced by the relevant authorities, private law requirements are primarily supervised and enforced by the private actors, i.e. marinas or associations.

In Finland, a boat club is normally a registered association to which the Associations Act (503/1989) is applicable. Associations are obliged

[79] Jätelaki (646/2011). The Finnish Waste Act, Section 76; Government Bill for a Finnish Waste Act 199/2010, page 115.

[80] The Finnish Waste Act, Chapter 2, Section 13.

[81] Regulation from the Swedish Maritime Administration SJÖFS 2001:13.

to establish statutes in which the functioning of the association are spelled out, but the Act does not set out a legal requirement to cover environmental issues in the statutes. Changing rules of a club may demand a qualified majority and suspending a club member may sometimes be difficult or seen as inappropriate. Therefore, certain clubs, such as the Esbo sailing association, have established their own environmental codes of conduct in the form of recommendations to club members as to the protection of the environment and waste management in antifouling practices.[82] Setting out terms and conditions for sub-lease contracts may also be an effective private law arrangement.[83]

In Denmark the marinas enact their own regulations for use of the marina according to the Harbour Act, i.e. public law regulations. Such local regulations may include instructions for both the use of biocidal paints, maintenance practices and the handling of waste as dust and scrapings. There are also examples of marinas or boat clubs including private law requirements on handling biocidal paints in their Articles of Association together with rules of procedure, membership, etc. Such privately enacted rules can for example declare that the use of banned antifouling paints will cause loss of the right to a berth in the marina, and be regarded as a major misconduct of membership.

In Sweden the boat clubs establish private codes of conduct for the use of the marina, often combined with a specific environmental plan. It is the boat clubs that control compliance with the internal rules and decides on sanctions for non-compliance. These documents are in general similarly constructed due to nation-wide collaboration between the boat clubs, with some using more specific provisions than others. The rules often consist of an explicit prohibition for the use of unauthorized antifouling paint, an obligation to collect and manage waste from painting, washing and scraping the boat and reference to guidelines provided by the Environmental Protection Agency, the Chemical Agency or other authorities. Some boat clubs also implement environmental plans containing long-term provisions, such as the aim to eliminate the use of toxic antifouling paints altogether and continuous work towards environmentally friendly standards and practices. These privately enacted codes of conduct or environmental plans are also a way the boat clubs use to fulfill the requirement for operators to monitor and control its activity in relation to the general requirements in the Environmental Code. Thereby, they can also be a useful tool for supervisory authorities in their examination of a marina.

3.4 Contaminated Soil and Sediments

Many boatyards and marinas in all three countries are contaminated by harmful substances due to the use of antifouling paints for decades, including TBT, copper and zinc.[84] The contamination may apply to land areas, e.g. those used for maintenance boats, as well as sediments in and around the marina. From a regulatory perspective, contaminated soil and sediments primarily falls into two different categories: 1) rules on liability for clean-up of contaminated soil, and 2) rules for registration and handling (pil-

[82] Esbo Segelförening, Miljöprogram för Esbo Segelförening r.f.: http://esbosegelforening.fi/foreningen/miljoplan-for-esf.

[83] Termination of a (sub)lease contract is usually easier than limiting a member's rights or suspending a membership.

[84] Eklund, B., Johansson, L. & Ytreberg, E., Contamination of a boatyard for maintenance of pleasure boats, J Soils Sediments (2014) 14:955–967 and Eklund, B. & Eklund, D., Pleasure Boatyard Soils are Often Highly Contaminated, Environmental Management (2014) 53:930–946.

ing, dredging and dumping) of contaminated soil and sediments.

3.4.1 Liability for contaminated soil and sediments

Liability rules for contaminated soil in Finland are based on the polluter pays principle. Public law liability is allocated through primary and secondary liability rules, under which the holder[85] of a land area may be liable if the polluter cannot be identified or obliged and if contamination has occurred with the holder's consent. The municipality may, nevertheless, ultimately be liable for remediation if the holder cannot be obliged to remediate.[86] For contaminated soil, the Decree (214/2007)[87] on the assessment of remediation needs sets out threshold values which triggers investigation and/or remediation obligations in relation to heavy metals and hydrocarbons, inter alia, copper, zinc, lead, nickel and PAHs.[88] Finnish law does not explicitly cover liability for contaminated sediments, but in practice dredging activities could trigger a remediation obligation by the party undertaking dredging because this activity may release contaminants.

In Denmark most storage areas in marinas are believed to be registered as contaminated due to the pollution with dust from boat maintenance and other activities. Clean-up of contaminated land is a complicated issue depending not only on who can be held liable, but also on when the pollution has occurred. If the pollution has taken place before 1 January 2001 the Environmental Protection Act (1189/2016) provides a legal basis for clean-up or remediation orders to polluters. According to court rulings such orders must be based on negligence. If the pollution has taken place after 1 January 2001 it is possible to hold operators of marinas liable for clean-up in accordance with the Contaminated Soil Act (1190/2016).[89]

In Sweden, the legal liability for the contamination of boat yards and marinas is first and foremost placed on the polluter – that is the operator (boat clubs or private companies). If no operator is found the landowner might ultimately be responsible for the clean-up. If it is not possible to hold either a former polluter or a landowner liable, the government provides national funding to cover the costs of remediation. In practice the government or a subsequent exploiter of the land often are the ones that pays for the remediation.

3.4.2 Handling of contaminated soil and sediments

Disposal and management of contaminated sediments in Denmark has been on the agenda since the 1980-ies. The Environmental Protection Agency initiated in 2000 a number of projects in order to establish strategies for the management of contaminated sediments from harbours. Most of the published knowledge dates back to those initiatives. The sediment can generally be dealt with in two ways. It can either be dumped at sea or stored on land at designated dumpsites or areas where the use or storage of contaminated soil causes no risk for further contamination of soil or groundwater resources. Dumping the sediment at sea is by far the most inexpensive and the preferred solution for the marinas. Dumping of dredged materials is subject to a permit cf. § 26 of the Act on Protection of the Marine Environment. The permit can only be granted if the contamination is in insignificant quantities and concentrations. When it comes to concentrations of pollut-

[85] It is important to notice that in lease situations it is not always clear who is to be deemed the 'holder' of a land area. It can be the lessee or the lessor (owner) and this is defined case-by-case.

[86] Ympäristönsuojelulaki 527/2014, Section 133.

[87] Valtioneuvoston asetus maaperän pilaantuneisuuden ja puhdistustarpeen arvioinnista (214/2007).

[88] The threshold value for copper is 200 mg/kg dw (dry weight).

[89] Bekendtgørelse af lov om jordforurening (Consolidated Act 1190/2016).

ing substances – including copper and TBT from antifouling paints, the sediments are categorized in A (Cu < 20 mg/kg dw (dry weight), TBT< 7 ug/kg dw), B (Cu 20–90 mg/kg dw, TBT 7–200 ug/kg dw) and C (Cu> 90 mg/kg dw, TBT> 200 ug/kg dw). Category A sediment is always suitable to dump. Category B sediment is subject to an individual evaluation, but will normally be dumped on a suitable site at sea. Category C sediment will normally have to be deposited on land. When it comes to quantities, there is a total limit on the amount of TBT and copper to be dumped from a single port or harbour. The rule of thumb is 1 kg TBT and 200 kg copper per year.

Dredging of contaminated sediments in Finland may require a permit if there is a risk of contaminating waters or the environment. A permit for dredging is needed under the Water Act (587/2011) if the quantity of dredged material exceeds 500 m^3, unless it is a question of maintenance of a public waterway. Although not specified in law but in ministerial guidance, dredging of sediments contaminated by copper must, through a dual threshold system, assess the concentrations of contamination based on which the dredged masses' eligibility for dumping at sea is determined. Concentrations exceeding Cu 90 mg/kg dw are unsuitable for dumping, and the corresponding amount for TBT is over 150 ug/kg dw.[90]

In Sweden there is a general prohibition of dumping materials e.g. from dredging.[91] The prohibition is subject to exemption in cases where land disposal is not a viable option for the operator but the dredged material must still be within acceptable level of contamination. Unlike Finland and Denmark, there are no limit values for copper and TBT in dredged material and values may vary from case to case. The limit value for TBT in sediments in order to determine good chemical water status (1,6 µg/kg dw) will, however, most likely lead to a more strict application of the possibility to grant exemptions from the ban of dumping.

3.5 Supervision and enforcement

Effective supervision and enforcement is a crucial element of environmental legislation. Supervision and enforcement is, however, also resource demanding. This is in particular the case when dealing with diffuse pollution sources and several potential "polluters" that are not easily identifiable. Supervising the activities of individual boat owners is a particular challenge.

In relation to the marketing and use of antifouling paints an effective control system should in principle be capable of controlling the availability on the market of non-authorised products as well as the use of such products by individual boat owners. Furthermore, effective sanctions – either administrative or criminal – are required to address (and prevent) unlawful behaviour. This does not, however, appear to exist in any of the three countries. There appears to be no reported criminal cases regarding non-authorised antifouling products. Administrative sanctions are available in Sweden, but not in Finland and Denmark. Another – and possibly more effective – option is to encourage marinas or boat owner organisations to either contribute to appropriate supervision of public law requirements or to establish their own codes of conduct within a private law setting.

In all three countries, supervisory powers are distributed among different authorities. In Denmark, the marketing and use of chemical products is supervised by the Environmental Protection Agency, whereas the supervision of waste and wastewater rests with the local authorities. This may also include supervision of

[90] Ympäristöministeriö, Sedimenttien ruoppaus- ja läjitysohje, Ympäristöhallinnon ohjeita 1/2015, pp. 40–42.
[91] Environmental Code (1998:808), chapter 15 section 27.

boat owners' use of antifouling paints, e.g. in the form of inspection campaigns. Furthermore, the local harbour authority (often the board or the local council) should supervise harbour regulations. There are no official records on the number of supervisory actions and so far it has not been possible to identify any recorded criminal cases regarding antifouling paints in Denmark. Administrative sanctions are in general not used in Danish environmental legislation and former rules on administrative fines in harbour regulations were abandoned in 2002.[92] Similarly, there are no records as regards sanctions under privately enacted codes of conduct although some marinas have such rules in place where the use of banned paints may cause the loss of a right to a berth in the marina or be regarded as a major misconduct of membership.

The fragmentation of the regulatory landscape described above is equally visible in supervision and enforcement of the relevant Finnish and Swedish regulations. In Sweden the Chemicals Agency is supervising the general marketing and use of chemical products and local municipal authorities supervise the application and use of paint. The Agency for Water and Marine Management as well as the Environmental Protection agency supervise the status of the environment on a national level, while regional as well as local authorities have the responsibility to supervise the operations affecting the environment. If a boat owner or a person working in a marina is using an environmentally harmful antifouling product when a less harmful product fulfills the same purpose, penal provisions for "environmentally hazardous handling of chemicals" can be imposed according to the Environmental Code. Serious pollution by chemicals can be regarded as an "environmental offence". These sanctions are, however, unlikely to be deemed applicable if the provisions from the Chemical Agency are followed.[93] The act must also cause harm to people or the environment or have a risk of causing such harm. Less serious offences or violations of prohibitions and regulations issued under chapter 14 can be regarded as "unlawful handling of chemicals".[94] There is, however, a lack of case law of the penal provisions in the Environmental Code being applied in relation to antifouling paints. Each municipality is autonomously organised and due to the lack of specific national rules or guidelines for marinas and boat clubs, except for the substance target values for wastewater from wash down areas, the supervision and enforcement may vary considerably between local authorities. Regional environmental cooperation between local authorities may, however, be a new forum to harmonise the practice and assessment.[95]

According to the Finnish Chemicals Act, a boat owner who negligently or intentionally breaches the obligation of using antifouling paints in a qualified manner and according to the products' instruction of use shall be sentenced to payment of a criminal fine for a "chemical violation".[96] Impairment of the environment can be counted as a crime as well.[97] Adminis-

[92] Statutory Order 9139/2002 § 2.

[93] See also Miljöbalk (1998:808), Ch. 2 section 4 regarding the principle of choosing a suitable chemical product.

[94] Miljöbalk (1998:808), Ch. 29 section 3a.

[95] See www.miljosamverkan.se/Sv/om-miljosamverkan/Pages/default.aspx.

[96] The Finnish Chemicals Act (599/2013), 59 §.

[97] A person who, intentionally or throught gross negligence, uses, handles or stores a substance in violation of the Chemical Act, the REACH Regulation, the CLP Regulation, the Biocide Regulation or a provision given on the basis of these or of the Environmental Protection Act, so that the act is conducive to causing contamination of the environment, other corresponding environmental despoliation or littering or health hazard, shall be sentenced for impairment of the environment to a fine or to imprisonment for at most two years (Criminal Code, chapter 48, section 1).

trative fines are not used in Finland.[98] Tukes is responsible for supervision of compliance with the Chemicals Act. Tukes is, however, not performing downstream supervision of compliance with antifouling paints' instructions of use. The Danish Environmental Protection Agency has, on the other hand, performed inspections on the use of antifouling paints and their related waste management. No use of illegal paints was found during these inspections. In Sweden, the supervision of use is explicitly mentioned in the regulations, and the division of supervisory tasks as to suppliers and users of paints is explicitly stated in legislation.[99]

4. Discussion and comparative remarks

4.1 General Remarks

From the perspective of general legal frameworks and related public authorities with their respective regulatory responsibilities, all three countries appear to apply a somewhat patchy or fragmented approach to the separate matters related to antifouling paints, for example, environmental quality (e.g. water quality), chemical products (e.g. authorisations or restrictions) and waste handling. The fragmented legal framework without an integrated, life-cycle perspective on antifouling may hinder a coherent approach to adequately address the harmful effects of antifouling paints. Thus, an integrated regulatory approach (considering all the different issue areas in a coherent manner) is lacking in all three countries, although the Swedish Environmental Code would possibly come the closest to this. Furthermore, the regulatory focus has a rather uneven emphasis on the different matters relevant to antifouling paints; legislation in all three countries focus mainly on the authorisation or other restrictions on marketing and use of the antifouling paints, i.e. product legislation, whereas there is less focus on antifouling paints in relation to e.g. waste handling and the practices of boat owners and marinas. In addition, having several authorities involved in regulating antifouling issues may lead to lack of coordination, or even worse, negligence of problems that do not clearly fall within the competence of one authority. An increased emphasis on the regulation of environmental quality and the implementation of the WFD and MSFD might, however, force member states to address the environmental quality problems related to antifouling paints and the need to reduce risks of pollution and to clean and restore sensitive coastal areas from antifouling substances.

4.2 Environmental quality regulation

The WFD and the MSFD establish a legal framework for the regulation of both ecological and chemical water quality. The extent to which this framework addresses antifouling matters depends, however, on which substances in paints are considered to be a threat to water quality. In this respect only TBT compounds have been identified as a hazardous priority substance, while diuron and cybutryne (Irgarol) are classified as priority substances. Copper and zinc are not identified as hazardous substances at EU level but might be addressed at national level. This means that antifouling is not as such necessarily considered an important issue in the RBMP's and marine strategies apart from TBT issues which are mainly linked to the handling of contaminated sediments. However, Sweden has in 2016 decided on general limit values for copper and zinc, and general measures to avoid exceeding these have been adopted in the new programme of measures (PoM). In the environ-

[98] Administrative compulsion can be applied in Finland. An owner of a polluted land may be obliged to clean sediments and a conditional fine can be used to motivate the owner.

[99] Miljötillsynsförordning (2011:13), chapter 2, section 31, p. 5, section 21 and 19 p. 16.

mental quality regulation, a main issue is thus to what extent antifouling paints (apart from TBT) are considered a water quality problem, i.e. the scope of environmental objectives and appropriate measures. Another regulatory issue is related to the legal effect of the environmental objectives. It is clear from the Weser-ruling of the CJEU that the objectives are legally binding on the authorities when deciding upon permit applications etc. Most antifouling issues are, however, not subject to permit requirements – except product authorisations and handling of sediments. In order to fulfill the objectives of the directives, Member States however need to take measures also to avoid further pollution from non-permit activities.

4.3 Product Regulation

Despite the existence of a harmonising EU regulation on biocides, it appears that quite different regulatory approaches to antifouling products exist in the Member States. The regulatory leeway in this area is thus wider than expected primarily due to the transitional rules allowing the Member States to continue applying current practices for up to three years after the date of approval of the last of the active substances to be approved in that biocidal product. Even after the expiry of the transitional rules the Member States will retain some options for taking national issues into account in the national authorisation of biocidal products and also to derogate from the mutual recognition due to e.g. the protection of the environment. Sweden and Finland apply an authorisation approach, while Denmark with reference to the transitional rules has maintained a restriction approach with respect to antifouling paints. In the authorisation approach, regulatory control is predominantly being directed at the party making available the product on the market, i.e. the actor responsible for import, sales and marketing, and is not concerned with downstream (boat owner) use of the product although restrictions on use may be part of the authorisation for marketing. In other words, in the countries choosing the authorisation path, the regulatory control in relation to the product is normally not directed at the boat owner or the marina. Using a restriction approach can to a larger extent be viewed to be directed towards the boat owners. The restriction approach in Denmark is, however, likely to be replaced by the authorisation approach in accordance with the EU BPR after the expiry of the transitional rules.

4.4 Environmental protection requirements – marinas and boat owners

The environmental regulation of activities of marinas and boat owners varies in the three countries. In general, marinas are not subject to specific environmental permit requirements. Pollution related to the handling of antifouling paints in marinas or by boat owners, e.g. maintenance and scraping, is mainly subject to general rules and standards regarding waste and wastewater. Apart from general prohibitions on discharge of polluting substances, more detailed requirements regarding waste management are often established at local level by the local authorities. Thus, it's difficult to get a clear picture of restrictions as regards maintenance, scraping etc. as they may vary from one municipality or one marina to another. Furthermore, such activities are even more unlikely to be regulated outside marinas. Activities of boat owners may, however, not only be subject to public law requirements, but also to private law requirements, e.g. in the form of codes of conduct of boat owner associations or marinas. Such private law requirements may turn out to be more effective in terms of (private) supervision and enforcement by the associations or marinas if appropriate sanctions exists, e.g. loss of the right to a berth in the ma-

rina. There is, however, very little knowledge about such private law arrangements and their functioning.

4.5 Liability for and handling of contaminated soil and sediments

Liability for contamination and remediation is based on the polluter pays principle in all the three countries. As contamination by antifouling paints has been caused during a long time and by multiple actors, the allocation of liability is rather complicated in practice. Because of this, individual liability for private boat owners using a marina seems less likely. It is more likely that marinas and boat clubs can be held liable for clean up or remediation, although their lack of economic resources might also lead to liability for land owners (often the municipalities). There are, however, no recorded liability cases related to antifouling paints in any of the countries. It appears that the general liability rules are too blunt to deal with contamination by antifouling paints caused by individuals – and possibly also marinas.

Legislation in all three countries recognise the presence of copper and other antifouling substances in soil and sediments at certain concentrations as a contamination. Handling sediments, e.g. dredging of harbours and waterways or other activities affecting the seabed, will in most cases require a permit. In Finland, however, there are some limitations to the permit requirement for minor dredging below 500 m^3. In permit systems, the environmental quality objectives or standards should be taken into consideration, which may result in restrictions or thresholds for the dumping of contaminated sediments offshore. Thus, a high level of contamination by antifouling substances may necessitate depositing the sediments on land which is normally much more costly than dumping at sea. Such expenses may indirectly support initiatives by the harbours or marinas to minimize pollution by antifouling paints, e.g. by codes of conduct or harbour regulations.

Thus, the costs of handling contaminated sediments as well as a potential liability for clean-up could be used to push regulatory control towards private regulation in marinas in order to promote behavioral change within the boat club. The boat club or marina typically leases the land area from the municipality or another land owner. In these situations, the lease agreements could be equipped with clauses on transfer of liability for contamination on the lessee, i.e. the marina. In turn, this could provide an incentive for the marina to develop internal environmental codes of conduct to avoid contamination.

4.6 Supervision and enforcement

Supervision and enforcement is a crucial underpinning for most regulatory instruments. In relation to antifouling paints there are not only several authorities involved in supervision – both at national, regional and local levels. There are also several actors to supervise, including harbours, marinas and not least individual boat owners. The supervision of individual boat owners is a particularly difficult and resource-demanding task. Thus, the distribution of supervisory powers among different authorities must be considered carefully. Local authorities are not necessarily equipped with sufficient resources, whereas national authorities may be too far away. Nevertheless, it appears that inspection campaigns, e.g. by the Danish Environmental Protection Agency, can be carried out successfully, particularly if there is a possibility in practice to control the paints used. In general, however, it could be considered whether private associations and marinas can play a larger role as regards supervision and enforcement – both with regard to public law requirements (e.g. harbour regulations) and/or private law arrangements, e.g. codes of

conduct. Different requirements, e.g. potential liability for clean up or remediation, as well as appropriate guidelines, might serve as an incentive for marinas and clubs to supervise and guide its members.

As regards enforcement, another issue is whether administrative sanctions can be used, or whether enforcement is based on criminal sanctions and court cases by a public prosecutor. Administrative sanctions might be more feasible to address minor cases involving non-compliance regarding e.g. maintenance and scraping of boats. However, it appears that administrative sanctions are not really used in relation to antifouling paints and in Finland and Denmark they are not used at all.

5. Conclusions

The legislation related to antifouling paints and practices addresses a range of different actors and has varying legal implications on different regulatory levels. Nevertheless, it seems that the most central actor as to the contamination by antifouling substances is the boat owner who uses the antifouling paints and the context in which this activity occurs, i.e. the leisure boat marina or boat club. In the three jurisdictions analysed, environmental quality regulation is unable to directly oblige the boat owner or the marina to take sufficient measures and conduct. Environmental protection law and waste law generally exclude smaller leisure boat marinas and boat clubs from permitting and waste management requirements. In product regulation, the authorisation and restriction procedures of antifouling paints function as an 'advance supervision' of chemical safety requirements to the extent that the leaching rates of a potential product are verified by the authority in advance. But when it comes to actual application of paint on the boat hull, compliance with product instructions/limitations is generally not supervised – presumably due to a lack of resources. From a perspective of compliance and enforcement, further direct regulation of boat owners or marinas on the basis of general environmental protection law may, however, not constitute the 'silver bullet' to sufficient environmental protection. Another option could be to encourage private law arrangements and "self- enforcement" by e.g. the marinas or boat owner associations.

The descriptive sections of this article goes to show that the regulatory landscape for these activities is scattered at many levels with different implications related to different regulatory perspectives, i.e. environmental quality, products and polluting activities. The regulatory frameworks are fragmented and uncoordinated in relation to the overall issue of antifouling paints and practices, and they have yet to reach their full potential as instruments of environmental protection. Another issue is that the EU legislation does not fully harmonise the national legal framework. In relation to environmental quality regulation, it is left to the Member States to safeguard concerns regarding copper- or zinc-based paints (EU only addresses TBT, diuron and irgarol). Even as regards the biocidal products regulation, it appears that Member States are still left with some room for application of national criteria, e.g. linked to environmental protection concerns.

Clear national limit values for relevant antifouling substances, complementing the EU values for priority substances, are a necessary first step to get authorities, operators like marinas and boat clubs to act. Given the nature of antifouling issues, i.e. the need to address the behaviour of boat owners and the lack of appropriate supervision and enforcement of public law requirements, it could be argued that private law arrangements, e.g. codes of conduct, are a suitable complement to public law requirements. In this context, internal environmental codes of

conduct in marinas could, in different and innovative ways, hold a key position in influencing environmentally friendly antifouling practices. To promote such development, a more active and clear guidance from presumably national authorities to the marinas and boat clubs as well as local supervising authorities would be appropriate.

Vattenrättslig samordning
En studie om ramvattendirektivets möte med nitrat- och avloppsdirektivet

*Henrik Josefsson**

Abstract

One of the aims of the Water Framework Directive is that it should provide an overall framework for the development of an integrated and coherent EU and national water regulation. This aim includes several directives including point source and diffuse source legislation, such as the Urban Waste Water Directive and the Nitrates Directive. In the Water Framework Directive, the base for integration and coherence regarding point sources and diffuse sources is found in art. 11(3)(a) and art. 10, together with the update requirements in art. 11(3)(g)(h), which ought to result in a coherent approach for, e.g., waste water and nitrates emission regulated by the Urban Waste Water Directive and the Nitrates Directive. In Swedish law, implementation of the Urban Waste Water Directive and the Nitrates Directive are fulfilled through general administrative provisions that do not regard the achievement of the Water Framework Directives objectives. Due to this lack of integration and coherence in Swedish law it is very questionable if the Water Framework Directives objectives can be achieved regarding waste water and nitrates emissions. If the Water Framework Directives aim of integration and coherence for EU and national water regulation are not sought by Member States, there is a risk that the art. 4 objectives are jeopardised, which is a clear sign that a Member State does not fulfil its obligations to EU law.

1. Inledning

När EU-kommissionen la fram sitt förslag till vattendirektiv[1] var inte avsikten att direktivet skulle bli den enda vattenlagstiftningen inom gemenskapen, med sina långtgående art. 4-mål, utan direktivet var också utformat för att koordinera och skapa samordning inom unionens vattenlagstiftning.[2] För att uppnå denna koordination och samordning skapades, bland annat, målet om ett kombinerat tillvägagångsätt för punktkällor och diffusa källor (art. 10) som förenar bland annat utsläppsbegränsningar baserat på BAT med kvalitetsnormer i den mottagande recipienten. Kommissionens avsikt var att statusen hos recipienten skulle komplettera tidigare införda utsläppsbegränsningar och vid behov resultera i strängare begränsningar (än BAT) för att uppnå en god status i recipienten.[3] I och med att den tidigare gemenskapsrätten för vatten, som inte upphävts av vattendirektivet, till stor del avser att reglera just punktkällor och diffusa källor finns det genom art. 10 möjligheter att skapa en mer samordnad reglering av dessa två typer av utsläppskällor.

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[1] Europaparlamentets och rådets direktiv 2000/60/EG av den 23 oktober 2000 om upprättande av en ram för gemenskapens åtgärder på vattenpolitikens område.

[2] COM (1997) 49, Förslag till rådets direktiv om upprättande av en ram för gemenskapsåtgärder på området för vattenpolitik 11.

[3] ibid 11–14.

Vattendirektivets mål om en samordnad gemenskapsrätt för vatten inkluderar ett flertal direktiv och framförallt avloppsdirektivet[4], nitratdirektivet[5], badvattendirektivet[6], dricksvattendirektivet[7], industriemissionsdirektivet[8], direktivet för uthållig användning av växtskyddsmedel[9], art- och habitatdirektivet[10], fågelskyddsdirektivet[11], slamdirektivet[12], sevesodirektivet[13], MKB-direktivet[14] och Priodirektivet[15] (se art. 11(3)(a), art. 10, bilaga VI (del A)). Av dessa direktiv har nitratdirektivet och avloppsdirektivet valts som studieobjekt och huvudfrågan för artikeln är hur ett samordnat rättsligt regelverk ska utformas för utsläpp som regleras av avloppsdirektivet, nitratdirektivet och vattendirektivet.

Det finns flertalet anledningar till att studera både nitratdirektivet och avloppsdirektivet men för den här studien är det framförallt nitratdirektivets reglering av diffusa utsläpp i kombination med avloppsdirektivets reglering av punktkällor som varit vägledande för avgränsningen. Andra intressanta aspekter med nitratdirektivet och avloppsdirektivet är att de pekas ut, av bland annat Kommissionen, som viktiga i uppnåendet av vattendirektivets art. 4-mål i relation till punktutsläpp och diffusa utsläpp.[16] Dessutom genomförs båda direktiven genom generella föreskrifter i svensk rätt, en regleringsform som ofta lyfts fram som användbar för att uppnå vattendirektivets art. 4-mål.[17] En annan intressant aspekt är att dessa två direktiv ingår i den grupp av direktiv som fanns innan vattendirektivet färdigställdes och de har inte uppdateras sedan vattendirektivet trädde i kraft,[18] vilket medför att inga anpassningar till vattendirektivet har genomförts.[19] Därtill har dessa två direktiv, till skillnad från

[4] Rådets direktiv 91/271/EEG av den 21 maj 1991 om rening av avloppsvatten från tätbebyggelse.
[5] Rådets direktiv 91/676/EEG av den 12 december 1991 om skydd av vatten mot förorening orsakad av nitrater som härrör från jordbruket.
[6] Rådets direktiv 2006/7/EG av den 15 februari 2006 om förvaltningen av badvattenkvaliteten.
[7] Rådets direktiv 98/83/EG av den 3 november 1998 om kvaliteten på dricksvatten.
[8] Europaparlamentets och rådets direktiv 2010/75/EU av den 24 november 2010 om industriutsläpp.
[9] Europaparlamentets och rådets direktiv 2009/128/EG av den 21 oktober 2009 om upprättande av en ram för gemenskapens åtgärder för att uppnå en hållbar användning av bekämpningsmedel. Se även Europaparlamentets och rådets förordning (EG) nr 1107/2009 av den 21 oktober 2009 om utsläppande av växtskyddsmedel på marknaden.
[10] Rådets direktiv 92/43/EEG av den 21 maj 1992 om bevarande av livsmiljöer samt vilda djur och växter.
[11] Europaparlamentets och rådets direktiv 2009/147/EG av den 30 november 2009 om bevarande av vilda fåglar.
[12] Rådets direktiv 86/278/EEG av den 12 juni 1986 om skyddet för miljön, särskilt marken, när avloppsslam används i jordbruket.
[13] Europaparlamentets och rådets direktiv 2012/18/EU av den 4 juli 2012 om åtgärder för att förebygga och begränsa faran för allvarliga olyckshändelser där farliga ämnen ingår.
[14] Europaparlamentets och rådets direktiv 2011/92/EU av den 13 december 2011 om bedömning av inverkan på miljön av vissa offentliga och privata projekt
[15] Europaparlamentets och rådets direktiv 2008/105/EG av den 16 december 2008 om miljökvalitetsnormer inom vattenpolitikens område.

[16] Commission Staff Working Document, 'Report on the Progress in Implementation of the Water Framework Directive Programmes of Measures Accompanying the Document 'The Water Framework Directive and the Floods Directive: Actions towards the "Good Status" of EU Water and to Reduce Flood Risks'' (2015) e.g. 70, 137.
[17] Se exempelvis Gabriel Michanek and others, 'Genomförande av det svenska systemet för miljökvalitetsnormer. Lärdomar från forskningsprogrammet SPEQS' (2016).
[18] I den gruppen ingår också badvattendirektivet (har uppdaterats), dricksvattendirektivet, slamdirektivet, sevesodirektivet (har uppdaterats), art- och habitatdirektivet och fågelskyddsdirektivet (har uppdaterats).
[19] Ett annat direktiv som också skulle kunna omfattas, sett till avgränsningen för artikeln, är slamdirektivet men det har relativt nyligen genomgått en, svensk, rättslig analys. Slamdirektivet är också relativt förlegat avseende krav och uppbyggnad och skulle genomgått en uppdatering men Kommissionen har inte initierat en översyn/uppdatering av slamdirektivet. Annika Nilsson, 'Avloppsslam som gödselmedel?' in Lena Gipperth and Charlotta Zetterberg (eds), Miljörättsliga perspektiv och tankevändor: vänbok till Jan Darpö & Gabriel Michanek

det generella angreppssätt som återfinns i vattendirektivet, ett tydligt avgränsat syfte och avloppsdirektivet är koncentrerat till utsläpp av avloppsvatten från tätbebyggelse (art. 1) medan nitratdirektivet fokuserar på att minska och förhindra nitratföroreningar till yt- och grundvatten från jordbruksverksamhet (art. 1).

Artikeln är upplagd så att först kommer vattendirektivets förhållande med gemenskapsrätten för vatten beskrivas, med fokus på avloppsdirektivet och nitratdirektivet, genom en analys av art. 11(3)(a), sedan beskrivs det kombinerade tillvägagångsättet i art. 10, följt av vattendirektivets åtgärdsinstrument för punktkällor och diffusa källor (art. 11(3)(g)(h)). I och med att regleringskraven i art. 11(3)(g)(h) är en del av åtgärdsprogrammens grundläggande åtgärderna kommer också åtgärdsprogrammens roll som samordnande instrument omnämnas. Efter analysen av vattendirektivet kommer avloppsdirektivet och nitratdirektivet beskrivas och analyseras med fokus på hur de förhåller sig till vattendirektivet. Efter analysen av avloppsdirektivet och nitratdirektivet undersöks hur målet om ett rättsligt samordnat regelverk för utsläpp som omfattas av avloppsdirektivet, nitratdirektivet och vattendirektivet omsatts i det svenska rättssystemet?[20]

2. Artikel 11(3)

2.1 Grundläggande, kompletterande och ytterligare åtgärder

Enligt vattendirektivet ska det för varje avrinningsdistrikt upprättas åtgärdsprogram för att uppnå direktivets art. 4-mål (art. 11(1)). Åtgärdsprogrammen ska innehålla grundläggande och kompletterande åtgärder (art. 11(2)). Med grundläggande åtgärder avses de regleringar och åtgärder som finns definierade i art. 11(3). Kompletterande åtgärder i art. 11(4) är inte fördefinierade utan aktualiseras när de regleringarna och åtgärder som återfinns i art. 11(3) inte räcker till.

I art. 11(3) sätts likhetstecken mellan grundläggande åtgärder och minimikrav men det är viktigt att inte misstolka vad som menas med minimikrav i art. 11(3). Artikeln innehåller en kravkatalog och utgör en innehållsförteckning för medlemsstaternas utformande av åtgärdsprogram och är precis som art. 11(4)(5) en del av direktivets minimikrav. Skillnaden mellan art. 11(3) och art. 11(4) är att art. 11(3) innehåller en förteckning av regleringar och åtgärder som medlemsstaterna ska lägga till grund för uppnåendet av direktivets mål.[21] Medlemsstaterna ska på så sätt utgå ifrån samma grund när de utformar sina åtgärdsprogram, vilket ger förutsättningar för jämförelser mellan medlemsstaternas åtgärdsprogram och genomförande i stort.[22] Art. 11(4) kan sägas medföra två saker. Den ena är att medlemsstaterna inte är begränsade till

(Iustus 2013); Ludwig Krämer, EC Environmental Law (Seventh Edition, Sweet & Maxwell 2012) 359–360.

[20] Artikeln kommer inte att diskutera det kombinerat tillvägagångsätt som finns i svensk rätt i 2:7 § 2 st. MB. Avgränsningen som finns i 2:7 § 2 st. MB är satt under press efter Weserdomen och MÖD:s senaste avgöranden där de menar att det går att direktivkonformt tolka svensk rätt i linje med Weserdomen. För den diskussionen hänvisar jag till rättsfallen och litteratur som tittat på frågan. C-461/13, Bund für Umwelt und Naturschutz Deutschland [2015]; C-461/13, Bund für Umwelt und Naturschutz Deutschland, opinion Advocate General Jääskinen [2014]; M 9616-14, Norviks hamn; M 8984-15, Värö pappersbruk; M 6574-15, Näckån; M 4160–15, Leveäniemi; Gabriel Michanek, 'Tillstånd får inte ges om aktuell ytvattenstatus försämras eller uppnåendet av god ytvattenstatus äventyras. Analys av EU-domstolens förhandsavgörande C–461/13' [2015] JP Miljönet.; Christina Olsen Lundh, 'Norm är norm – Om flytande normprövning och implementeringen av ramdirektivet för vatten' (2016) Nordic Environmental Law Journal.

[21] Lasse Baaner, 'The Programme of Measures of the Water Framework Directive-More than Just a Formal Compliance Tool' (2011) 8 Journal for European Environmental and Planning Law.

[22] Vilket varit ett problem under tidigare gemenskapsrätten, se Barbara A Beijen, Helena FMW Van Rijswick and Helle Tegner Anker, 'The Importance of Monitoring for the Effectiveness of Environmental Directives' (2014) 10 Utrecht Law Review 126.

de åtgärder som återfinns i art. 11(3), om målen inte uppnås, utan ska vid behov utforma andra styrmedel eller åtgärder för att uppnå direktivets mål. Kompletterande åtgärder ska därför ses som kompletterande i relation till de åtgärder och regleringar som återfinns i art. 11(3). Medlemsstaterna får också enligt art. 11(4) besluta om ytterligare kompletterande åtgärder som syftar till mer långtgående skydd eller förbättringar av vattenförekomster, vilket i linje med EU-domstolens praxis som säger att vattenkvalité är ett prioriterat intresse.[23]

Ett införande av ytterligare åtgärder för att nå målen för vattendirektivet, är också något som krävs enligt art. 11(5). I och med art. 4(1)(a) och art. 288 FEUF, vilket även kom till utryckt i Weserdomen, måste en medlemsstat genomföra alla åtgärder som är nödvändiga för att uppnå art. 4-målen och art. 11(5) åtgärderna träder in när det är osannolikt att målen med vattendirektivet kommer att nås.[24] Att se över det eventuella misslyckandet – tillstånd, godkännanden och övervakningsprogrammet – kan förstås som en kontrollstation innan strängare normer enligt art. 11(5) genomförs eller undantag för vattenförekomsten undersöks enligt art. 4(3)(5), vilken artikel som aktualiseras beror på vad som orsakar situationen. Att art. 11(5) situationer[25] kan indikera på att undantag enligt art. 4(3)(5) ska aktualiseras framgår inte fullt ut av art. 11(5) men i och med att situationen avser en osannolikhet om att art. 4-målen ska nås är det rimligt att möjligheten att införa både undantag som strängare normer undersöks.

Beroende på i vilket sammanhang som art. 11(5) situationen uppstår kan artikeln vara en förutsättning för att något ska klassificeras som en kompletterande åtgärd, en ytterligare typ av åtgärd eller en indikation på att kravet om översyn av rådande regelverk (se exempelvis art. 11(3)(g)(h) som diskuteras nedan) behöver genomföras och därmed ses som en grundläggande åtgärd.[26] I och med fördefinieringen som återfinns i art. 11(5) finns på så sätt större likheter mellan art. 11(3) och art. 11(5) än mellan art. 11(4) och art. 11(3).

2.2 Artikel 11(3)(a)

Art. 11(3)(a) består av två delar:

- de åtgärder som krävs för att genomföra gemenskapslagstiftningen för skydd av vatten
- inklusive de åtgärder som krävs enligt den lagstiftning som anges i artikel 10 och i bilaga VI, del A.

Uppdelningen, och 'inklusive' i andra delen, innebär att det i första delen finns en generell skyldighet för medlemsstaterna att genomföra gemenskapsrätten som finns för skydd av vatten. Andra delen avser att skapa en skyldighet att inkludera och integrera de åtgärder som genomförs enligt annan vattenlagstiftning i åtgärdsprogrammen, vilket inkluderar avloppsdirektivet och nitratdirektivet (art. 11(3)(a)). Den här delen av art. 11(3)(a) ska inte bara förstås som en påminnelse om annan gemenskapslagstiftning utan avser att skapa en länk mellan både

[23] Se C-232/97, Nederhoff [1999] som säger att skyddet av vattenkvalité är ett prioriterat intresse. Se även C-9/04, Geharo [2005].

[24] Weserdomen (n 20).

[25] Förutom, t.ex., en bristande översyn och uppdatering av tillstånd, godkännanden och övervakningsprogrammet omnämns också naturliga skäl eller force majeure (extrem översvämning och utdragen torka) i artikeln, vid dessa mer okontrollerbara situationer kan medlemsstaten välja att ytterligare åtgärder inte ska genomföras, utan att åsidosätta kraven som finns i art. 4(5), (se art. 11(5) sista stycket).

[26] Vissa tycks anse att medlemsstaterna är skyldiga att använda kompletterande åtgärder (art. 11[4]) endast i situationer som kan inordnas under art. 11(5). Se William Howarth and D McGillivray, Water Pollution and Water Quality Law (Shaw 2001).

första skälet[27] till vattendirektivet och syftet med direktivet – att upprätta en ram för skyddet av inlandsytvatten, vatten i övergångszon, kustvatten och grundvatten (art. 1) – ett syfte som är nära sammanfogat med målen i art. 4 och det kombinerade tillvägagångsättet i art. 10.[28] Det är alltså inget minimikrav enligt vattendirektivet att genomföra annan gällande gemenskapshetslagstiftning, eftersom den ska genomföras enligt dessa direktiv, däremot kan vattendirektivet påverka gemenskapsrätten för vatten (se art. 4(2), 10).

En annan anledning till omnämnandet av den vattenrelevanta lagstiftningen i art. 11(3)(a) är att vattendirektivet tar sitt avstamp i det här komplexet och kompletterar samt bygger vidare på det.[29] Avstampet består i, exempelvis, gränsvärden för tungmetaller enligt slamdirektivet, åtgärdsprogram för nitratkänsliga områden till följd av nitratdirektivet och reningsgrad vid utsläpp av avloppsvatten från reningsverk enligt avloppsdirektivet. Där, exempelvis, slamdirektivet slutar träder vattendirektivet in och medför att även om gränsvärdena respekteras får ingen försämring ske i vattenförekomsterna om inte undantagen i art. 4(7) kan nyttjas.[30]

I och med att åtgärdsprogrammen ska inkludera åtgärder som genomförs till följd av annan vattenlagstiftning finns det en skyldighet att i åtgärdsprogrammen integrera åtgärder som redan ska ha genomförts. Redovisningen av dessa åtgärder är en intressant aspekt av åtgärdsprogrammen, dvs. åtgärdsprogram till följd av vattendirektivet ska upprättas för varje förvaltningscykel oavsett om det finns miljöproblem som föranleder deras upprättande eller inte. Regeringen uppmärksammade vattenmyndigheterna på denna aspekt när de prövade åtgärdsprogrammen och påpekade att avsikten med vattendirektivets åtgärdsprogram är att de inte bara ska inkludera åtgärder som behövs för att uppnå direktivet mål utan även åtgärder och regleringar som inte behöver 'åtgärdas' ska ingå i vattendirektivets åtgärdsprogram.[31] Åtgärdsprogrammen är på så sätt det viktigaste verktyget för att både säkerställa och beskriva samordningen mellan olika typer av lagstiftning och åtgärder som strävar efter att bidra till att målen för EU:s vattenlagstiftning uppnås.[32] Visuellt blir det i åtgärdsprogrammen som samordningen av medlemsstaternas ansträngningar ska påvisas och där visa att det finns en helhetsplan för hur medlemsstaten ska uppnå art. 4-målen, linje med praxis under nitratdirektivet.[33]

2.3 Ett relevant sidospår

Att det finns krav på samordning och att avsikten är att vattendirektivet ska bygga vidare på den tidigare vattenrelaterade gemenskapsrätten framgår också av vattendirektivets definition av 'skyddade områden'. Ett skyddat område enligt vattendirektivet är bland annat områden som är känsliga för näringsämnen enligt avloppsdirektivet och nitratdirektivet (se art. 6 och

[27] Vatten är ingen vara vilken som helst utan ett arv som måste skyddas, försvaras och behandlas som ett sådant.
[28] COM (1997) 49 Förslag till vattendirektivet (n 2) 11–14.
[29] Hur interaktionen och integrationen ska ske är inte givet, se exempelvis Helle Tegner Anker, 'Agricultural Nitrate Pollution – Regulatory Approaches in the EU and Denmark' 2015 Nordic Environmental Law Journal; Lorenzo Squintani and Helena van Rijswick, 'Improving Legal Certainty and Adaptability in the Programmatic Approach' (2016) 28 Journal of Environmental Law 443.
[30] Se art. 4 och Weserdomen (n 20).
[31] De åtgärder som genom åtgärdsprogrammen specifikt riktas till kommuner och myndigheter utgör således endast en delmängd i förhållande till kraven i art. 11(3) i direktivet. Vattenmyndigheterna löste denna fråga genom att infoga en bilaga som visade på implementeringen av den vattenlagstiftning som avses i art. 11(3)(a) som Havs- och Vattenmyndigheten utarbetat med hjälp av författaren. Miljö- och energidepartementet, Beslut om prövning av vattenmyndigheternas förslag till åtgärdsprogram för 2015–2021.
[32] COM (1997) 49 Förslag till vattendirektivet (n 2) 11.
[33] C-266/99, Commission v France [2001] 29, 30.

bilaga IV). För 'skyddade områden' kräver vattendirektivet att alla normer och mål ska uppnås till 2015 om inget annat anges i något av direktiven (se art. 4(1)(c). Bestämmelsen medför inte att vattendirektivet ska genomföra dessa direktiv utan sätter bara ett slutdatum för när deras olika målsättningar ska uppnås. Dvs. vattendirektivets tidsundantag i art 4(4) (2021 alt 2027) är inte applicerbara för mål upprättade enligt annan gemenskapsrätt trots att direktivens målsättningar tidsätts. Samtidigt ska art. 4(3) nämnas, som säger att om fler än ett av målen enligt 4(1) gäller för en viss vattenförekomst, ska det strängaste målet gälla. Det medför att, exempelvis, tidsundantagen enligt art. 4(4) kan användas för vattenförekomster som befinner sig i skyddade områden om vattendirektivets mål bedöms som strängare än de andra direktivens mål.[34] Systematiken i art. 4(1)(c) och 4(3) återfinns också i art. 10(2)(3) som säger att de strängaste kvalitetsmål eller normer ska utgöra grund för utformandet av utsläppsregleringar. Det medför också att undantagen i art. 4, t.ex. tidsundantaget, blir tillämpliga för vattenförekomster där det är vattendirektivets normer som medför att det ställs mer långtgående utsläppsregleringar i enlighet med art. 10(3). Noterbart är också att målen som följer av art. 4(1)(c) innefattas av art. 11(1), som bara nämner art. 4.[35]

3. Artikel 10 – ett kombinerat tillvägagångsätt

Även om art. 11(3)(a) nämner art. 10 är det inte den referensen som medför att ett genomförande av art. 10 är relevant för alla utsläpp till ytvatten utan det är den första delen. Precis som i art. 10(2)(3) avser 'gemenskapslagstiftning' i art. 11(3)(a) inte enbart tidigare vattenrelaterad lagstiftning utan också vattendirektivet i och med begreppet gemenskapslagstiftning används utan avgränsning.

Art. 10 kräver av medlemsstaterna att de inför ett kombinerat tillvägagångsätt. Art. 10(2) bidrar med ena delen av tillvägagångsättet genom att utsläpp till ytvatten ska vara baserat på BAT eller relevanta utsläppsbegränsningar och för diffusa utsläpp t.ex. bästa miljöpraxis.[36] Detta traditionella sätt att begränsa utsläppen till ytvatten kombineras i vattendirektivet med kvalitetsnormer i den mottagande recipienten och om dessa normer inte uppnås ska strängare krav ställas än vad som följer av art. 10(2), enligt art. 10(3). Dvs. om ett kvalitetsmål eller en kvalitetsnorm i någon gemenskapslagstiftning (inklusive vattendirektivet) inte uppnås genom tillämpningen av, t.ex., BAT ska strängare utsläppsregleringar fastställas för relevanta utsläppskällor. Art. 10 skapar en länk till syftet med direktivet (se skäl 16, art. 1) genom att bestämmelsen ger upphov till ett samordnat skydd för utsläpp från punktkällor och diffusa källor inom de gemenskapsrättsliga områden som inverkar på uppnåendet av vattendirektivets art. 4-mål.

Kommissionen lägger stor vikt vid det kombinerande tillvägagångsättet i sitt förslag till vattendirektiv och hur det utgör en grund för genomförandet av direktivet och ett uppnående av direktivets mål.[37] På senare tid har Kommissionen också påtalat att ett införlivande av art 10(3) är nödvändigt för att art. 4-målen ska kunna uppnås. Kommissionen anser att när de utsläppsregleringar och gränsvärden för utsläpp

[34] Diskuteras av Henrik Josefsson, 'Assessing Aquatic Spaces of Regulation: Key Issues and Solutions' (2014) 3 Nordic Environmental Law Journal 23.

[35] Miljöbalkskommittén, 'SOU 2002:107, Bestämmelser om miljökvalitet – Miljöbalkskommitténs betänkande angående införandet av EG:s ramdirektiv för vatten i Sverige' 124–125.

[36] Uppräkningen av regleringsåtgärder för diffusa konsekvenser är inte uttömmande utan endast exemplifierande, samma systematik har valt för art. 11(3)(h) (se nedan).

[37] COM (1997) 49 Förslag till vattendirektivet (n 2) 11–14.

som upprättats i enlighet med gemenskapsrätten visar sig vara otillräckliga för att uppnå art. 4-målen är medlemsstaterna skyldiga att anta strängare utsläppsregleringar än dem som föreskrivs i, tex., nitratdirektivet.[38]

En svårighet i genomförandet av art. 10 är att bedöma när strängare krav enligt art. 10(3) ska införas inom andra vattenrelaterade rättsområden såsom avloppsdirektivet eller nitratdirektivet.[39] Rättspraxis från EU-domstolen visar att om mer än ett direktiv gäller är det i huvudsak innehållet i de direktiv som bestämmer i vilken ordning de gäller och inte allmänna kriterier såsom 'lex specialis'.[40] I C-9/04 menade domstolen att hänsyn ska ta tas till innehållet och målen som ett direktiv har och när det handlar om en avvägning mellan en generell ämnesnorm och en produktnorm menade domstolen att en mer detaljerad norm (direktivet om leksaker) inte skulle ha företräde framför en mer generell norm (kadmiumnormer).[41] I C-232/97 avgjorde domstolen en konflikt mellan direktiv (76/464) om prioriterade ämnen och biociddirektivet (76/769).[42] Konflikten uppstod när Nederländerna begränsade användningen av träpålar som behandlats med kreosot i ytvatten eftersom intensiv användning skulle leda till vattenföroreningar som riskerade att miljökvalitetsnormer i direktivet om prioriterade ämnen skulle överskridas.[43] Enligt domstolen har direktivet om prioriterade ämnen företräde framför biociddirektivet eftersom den förra skyddar vattenkvalité i synnerhet medan den senare avser den fria rörligheten för varor och marknadsföring av ämnen och produkter.[44] Att det går att ställa långtgående krav för att skydda vattenkvalité finns det exempel på i vattendirektivet också – enligt art. 11(4) 2 st. får medlemsstaterna besluta om kompletterande åtgärder som syftar till ytterligare skydd eller förbättringar av vatten som omfattas av vattendirektivet. Utifrån C-232/97 och C-9/04 går det att hävda att beslut om ytterligare åtgärder kan begränsa den fria rörligheten av produkter om det finns vattenkvalitetskäl för beslutet. Även om praxis inte fullständigt klargör vilket direktivs målsättning som gäller för en vattenförekomst hjälper praxis till med att tydliggöra att vattenkvalité är ett prioriterat intresse framförandra, något som ger tyngd åt vattendirektivets generella mål.[45] Det är en viktig utgångspunkt när samordningen mellan vattendirektivet och den övriga gemenskapsrätten för vatten undersöks.

4. Vattendirektivet artikel 11(3)(g)(h) – regleringen av punktkällor och diffusa källor

4.1 Artikel 11(3)(g)

I art. 11(3)(g) specificeras att utsläpp från punktkällor som kan ge upphov till föroreningar ska regleras innan de påbörjas, genom till exempel förbud mot förorenande ämnen eller förhandsprövning, inbegripet de regleringar som återfinns i art. 10 vattendirektivet. Regleringarna ska vid behov ses över och uppdateras. Bestämmelsen är uttömmande, däremot fanns den inte med

[38] Se C-648/13, Commission v Poland [2016] 125; Se även IMPEL, 'Linking the Water Framework Directive and the IPPC Directive (Final Report)' (2010) 92–93; Christina Olsen Lundh, Panta rei: om miljökvalitetskrav och miljökvalitetsnormer (Havsmiljöinstitutet 2016) 271–281.

[39] I en svensk kontext berörs frågan i Värö pappersbruk (n 20).

[40] Joined Cases C-281/03, C-282/03, Arch Timber Protection [2005] 32, 49.

[41] C-9/04 (n 23) p. 26–29.

[42] C-232/97 (n 23).

[43] ibid p. 18–22.

[44] ibid p. 56–58; se även EM Vogelezang-Stoute and HFMW Rijswick, 'The Water Framework Directive and Pesticides Legislation: The Influence of Environmental Quality Standards and the River Basin Approach Taken in the Water Framework Directive on the Authorisation of Plant Protection Products' (2008) 17 European Energy and Environmental Law Review 78.

[45] Att miljöhänsyn är ett prioriterat intresse är sedan länge fastlagt inom EU-rätten, se exempelvis C-302/86, Commission v Denmark.

i kommissionens förslag till ramvattendirektiv vilket inte heller art. 11(3)(h) gör.[46]

Även om det finns en hänvisning till art. 10 i både art. 11(3)(a) och art. 11(3)(g) skiljer sig hänvisningen så till vida att art. 11(3)(a) säger åtgärder enligt direktiven i art. 10 och art. 11(3)(g) säger regleringar som finns i art. 10. Art. 11(3)(a) avser alltså att inkludera de åtgärder som redan genomförs inom gemenskapsrätten som omfattas av art. 10 och 'regleringar' i art. 11(3)(g) avser ett kombinerat tillvägagångsätt och medför att för punktkällor som omfattas av art. 11(3)(g) gäller målet om ett kombinerat tillvägagångsätt.

I och med att art. 11(3)(g) inbegriper regleringarna i art. 10 utvidgar artikeln omfattningen av art. 10 till att inte bara gälla den gemenskapsrätten för vatten som omfattas av art. 10. Utvidgningen kommer av att art. 11(3)(g) är begränsad till utsläpp från punktkällor som kan ge upphov till föroreningar och inte vad som definieras som punktkällor eller föroreningar i gemenskapsrätten i övrigt.[47] I och med att art. 11(3)(g) säger att utsläpp från punktkällor som kan ge upphov till föroreningar ska genomgå en förhandsreglering som inbegriper art. 10 ska alla punktkällor, även sådana som inte inkluderas under övrig gemenskapslagstiftning, regleras genom ett kombinerat tillvägagångsätt som kan resultera i krav mer långtgående än BAT.[48] Det finns alltså ingen nedre gräns för vilka punktkällor som omfattas av art. 11(3)(g), utan alla punktkällor som påverkar uppnåendet av art. 4-målen omfattas av kraven i art. 11(3)(g) (se även art. 11(1)).

4.2 Artikel 11(3)(h)

Art. 11(3)(h) är inte uttömmande utan exemplifierar att för diffusa källor som kan ge upphov till föroreningar ska det finnas åtgärder för att hindra eller reglera utsläppen, såsom förhandsreglering, förbud att släppa ut förorenande ämnen eller en registrering. I förarbetena trycker kommissionen på behovet av en diversifierad reglering av diffusa källor, för att på så sätt möta den stora bredden av diffusa utsläpp till ytvatten.[49]

Precis som i art. 11(3)(g) ska regleringarna till följd av art. 11(3)(h) regelbundet ses över och vid behov uppdateras. För att omfattas av art. 11(3)(h) måste källan ge upphov till föroreningar vilket inkluderar, bland annat, indirekt tillförsel genom mänsklig verksamhet av ämnen eller värme till luft, vatten eller mark som kan skada kvaliteten på akvatiska ekosystem (art. 2(33)). Inte heller här finns någon nedre gräns utan det är påverkansanalysen som styr var och vilka förorenare som åtgärder ska riktas emot. Art. 11(3)(h) nämner inte art. 10, såsom art. 11(3)(g), samtidigt avser art. 10 punktkällor och diffusa källor. Trots oklarheten om vilka regleringar som omfattar diffusa källor är det en rimlig utgångspunkt att alla utsläpp till ytvatten från punktkällor och diffusa källor ska regleras genom ett kombinerat tillvägagångsätt i och med att art. 10 tydligt säger just detta, vilket kommissionen också påtalat.[50]

När kommissionen exemplifierar åtgärder emot diffusa utsläppskällor kan åtgärderna sättas in i kategorier såsom habitatförbättringar, jordförbättringar och förändrat brukande av mark.[51] Alla dessa åtgärder har ett övergripande

[46] Se art. 13 i COM (1997) 49 Förslag till vattendirektivet (n 2).

[47] Peter A Chave, The EU Water Framework Directive: An Introduction (IWA Publishing 2001) 101–102. Dessutom är definieringen av förorening mycket bred i vattendirektivet (art. 2(33)). Förorening: direkt eller indirekt tillförsel genom mänsklig verksamhet av ämnen eller värme till luft, vatten eller mark, som kan skada människors hälsa eller kvaliteten på akvatiska ekosystem eller på terrestra ekosystem som är direkt beroende av akvatiska ekosystem, som medför skada på materiell egendom eller försämrar eller hindrar möjligheterna att utnyttja de fördelar naturen erbjuder eller annan legitim användning av miljön.

[48] Olsen Lundh (n 37) 271–281, 338.

[49] COM (1997) 49 Förslag till vattendirektivet (n 2) 13.

[50] C-648/13 (n 37) p. 125.

[51] Såsom omvandling av åkermark till gräsmark, buffertzoner eller skyddszoner vid jordbruksmark, växelbruk

anslag och avser att förhindra att föroreningar når vattenförekomsterna storskaligt och synes mest lämpa sig som generella föreskrifter, till skillnad från en ofta mer geografiskt avgränsade tillståndsprövningar, och rikta sig till alla inom ett avgränsat geografiskt område.[52] Storleken på det geografiska området kan precis som inom ramen för nitratdirektivet (se nedan) avse hela medlemsstaten (se även art. 11(1) vattendirektivet) och utformas för att träffa alla verksamheter och enskilda som bidrar till ett vist diffust utsläpp. Möjligheten till att mångfacetterat reglera diffusa källor följer av att art. 10(2) och art. 11(3)(h) inte är uttömmande avseende vad för regleringsåtgärder som ska hantera konsekvenserna av diffusa utsläpp till ytvatten utan alla omnämnda åtgärder kan inrymmas inom ramen för båda artiklarna.

Kommissionen uttalade, i sitt förslag till vattendirektiv, att utgångspunkten med direktivet inte var att hantera alla typer av diffusa källor utan problem till följd av jordbrukets utsläpp av nitratföroreningar eller växtskyddsmedel fortsättningsvis skulle hanteras av nitratdirektivet och växtskyddsmedelslagstiftningen.[53] Även om detta var utgångspunkten påtalade kommissionen att vattendirektivet innehåller bestämmelser som kommer att förbättra samordningen av de åtgärder som genomförs för att hantera diffusa föroreningar och komplettera andra direktiv för att mer helhetligt hantera problem med diffusa källor på lokal, nationell och gemenskapsnivå.[54] Sett till grundtanken med vattendirektivets reglering av diffusa föroreningar får art. 11(3)(h) en kompletterade roll och fyller ut de hålrum som t.ex. nitratdirektivet inte fyller ut. Samtidigt säger art. 10 att genomförandet av, t.ex. nitratdirektivet ska anpassas till de strängaste kvalitetsmål eller kvalitetsnormer som finns i gemenskapsrätten (art. 10(3)), vilket placerar vattendirektivet i centrum för regleringen av diffusa källor. Kommissionens ambition med vattendirektivet blev på så sätt en realitet i och med art. 11(3)(h) kompletterar och fyller ut regleringshålrum i gemenskapsrätten och art. 10(3) samordnar och skapar en gemenskapsrättslig referens för regleringen av punktkällor och diffusa källor.

4.3 Uppdateringskravet för punktkällor och diffusa källor

Det finns en återkommande formulering i art. 11(3) och det är att regleringarna regelbundet ska ses över och, när så är nödvändigt, uppdateras och så även i art. 11(3)(g)(h) (se även art. 11(3)(e)(f)(i)). Vad innebär det att något regelbundet ska ses över och, när så är nödvändigt, uppdateras?

Det är troligt att kravet om uppdatering ska förstås i relation till målen för direktivet, precis som i art. 11(5). Kravet om uppdatering kan på så sätt ses som en del av vattendirektivets adaptiva element och en uppdatering av regleringarna måste ske när det finns indikation på att uppnåendet av vattendirektivet syfte och mål riskerar att äventyras.[55] En indikation på att målen håller på att äventyras och regleringarna behöver ses över är, t.ex., om förhandsreglering av punktkällor och diffusa källor inte resulterar i att verksamheter anpassas efter vattendirek-

av jordbruksmark, öka vattenhållande förmåga av jord, skapande och återställande av våtmarker inom både jordbruks- och skogslandskapet och generellt förbättra vattenretention i marken och minska översvämningsrisken. Se Commission Staff Working Document, 'European Overview River Basin Management Plans (2/2), Accompanying the Document Report Form the Commission to the European Parliament and the Council on the Implementation of the Water Framework Directive (2000/60/EC) River Basin Management Plans' 17–18, 26, 30.

[52] Något som följer EU-domstolens definition av diffus källa, se nedan avsnitt 4.5.

[53] COM (1997) 49 Förslag till vattendirektivet (n 2).

[54] ibid.

[55] I linje med Weserdomen (n 20).

tivets krav, vilket resulterar i att målen för en eller flera vattenförekomster inte uppnås och tidsundantagen i art. 4(4) behöver nyttjas i kommande förvaltningscykler. Även om begreppet reglering i art. 11(3)(g)(h) kan avse en nationell omprövningsreglering (art. 11(1)) bör uppdateringskravet kunna aktualiseras av att enskilda verksamhetstillstånd inte omprövas eller förses med otillräckliga villkor. I och med att målen på sikt ska nås måste regleringen kunna leda till att målen uppnås, om det finns indikation på att så inte kommer ske måste regleringen ses över i och med att målen annars äventyras. Översynskravet fungerar som ett sätt att se till att alla nödvändiga åtgärder, inom ramen för art. 11(3)(g)(h), genomförts och om dessa inte räcker till ska art. 11(4) eller art. 11(5)-åtgärder aktualiseras.

För samordning av gemenskapsrätten för vatten är det noterbart att det inte finns någon gräns för vilka regleringar som kravet om översyn och uppdatering träffar. Även om art. 11(3)(g)(h) kompletterar och fyller ut regleringshålrummen som den tidigare gemenskapsrätten lämnat finns det inget som säger att dessa tidigare regleringar inte omfattas av kravet om översyn och uppdatering. Det för med sig att om art. 4-målen äventyras av utsläpp av nitrater från jordbruket är det ett rimligt krav att se över och, vid behov, uppdatera det nationella genomförandet av nitratdirektivet utifrån uppnåendet av art. 4-målen oavsett om det finns något sådant krav enligt nitratdirektivet eller inte. Uppdateringskravet bidrar på så sätt till att samordna gemenskapsrätten för vatten inom de områden där de olika direktiven överlappar varandra.

4.4 Undantag punktkällor och diffusa källor

För nyetableringen av punktkällor och diffusa källor är det svårt att tillämpa vattendirektivets undantag i art. 4(7) i och med att det krävs nya modifieringar i en ytvattenförekomsts fysiska karakteristika för att art. 4(7) ska kunna tillämpas (se även skäl 32).[56] Det finns inte heller möjlighet att utpeka redan påverkade vattenförekomster som kraftigt modifierade om orsaken till art. 4-målen inte uppnås är att det ligger en punktkälla vid vattenförekomsten som medför utsläpp av förorenande ämnen. Att så är fallet framgår tydligt av definitionen av kraftigt modifierad vattenförekomst som säger att fysiska förändringar genom mänsklig verksamhet på ett väsentligt sätt ska ha ändrat karaktär på vattenförekomsten (art. 2(9)), vilket för med sig att förändringar i vattenförekomstens hydromorfologiska egenskaper krävs för att uppnå en god ekologisk status (art. 4(3)). Även om en förorenande källa skulle kunna förändra en vattenförekomst fysiska karakteristiska och inordnas under art. 4(3)(a)(v), som en hållbar mänsklig utvecklingsverksamhet, avser kraftigt modifierade-undantaget inte föroreningar utan verksamhetens hydromorfologiska påverkan (art. 4(3), Annex V 1.2.5).

För punktkällor och diffusa källor måste undantaget i art. 4(5) nyttjas. Men det kräver att vattenförekomsten är så påverkad av mänsklig verksamhet att det skulle vara omöjligt eller oproportionerligt dyrt att uppnå art. 4-målen. För att undantaget ska kunna nyttjas måste de miljömässiga och samhällsekonomiska behov som en verksamhet fyller inte kunna tillgodoses på något annat sätt som skulle vara ett bättre alternativ för miljön, utan att medföra oproportionerliga kostnader (art. 4(5)(a)). Trots att art. 4(5) medför att vare sig god ekologisk status eller potential behöver uppnås måste trots detta bästa möjliga ekologiska och kemiska status uppnås i relation till verksamheten eller föroreningens karaktär (art. 4(5)(b)), samtidigt som ingen fortsatt försämring av den påverkade vattenförekomstens får ske (art. 4(5)(c)).

[56] Det går att få indikation på vad som är en fysisk förändring från deskriptionerna bilaga II 1.2.

Sammantaget är möjligheterna i vattendirektivet att sänka kraven begränsade för utsläpp av föroreningar och endast för verksamheter där det går att applicera art. 4(5)-undantaget på vattenförekomsten kan lägre krav ställas. I och med dessa begränsade möjligheter är kraven i art. 11(3)(g)(h) långtgående och alla diffusa källor och punktkällor som inverkar på uppnåendet av art. 4-målen träffas av direktivets krav.

4.5 Definitionen av punktkälla och diffus källa

En annan fråga som art. 11(3)(g) och art. 11(3)(h) aktualiserar är var gränsen går mellan ett utsläpp från en punktkälla och en diffus källa. Definitionen av punktkälla och diffusa källor är relevant i och med att det finns ett krav på förhandsreglering i art. 11(3)(g) men inget liknande krav i art. 11(3)(h) vilket för med sig att beroende på vilken kategori som källan till utsläppet hamnar finns det i vattendirektivet olika regleringskrav.

Det finns ingen definition av punktkälla eller diffus källa i vattendirektivet definitionsartikel (art. 2) utan dessa två typer av begreppskonstruktioner omnämns i huvudsak i rubriken till art. 10, art. 11(3)(g)(h) och i bilaga II. Begreppsanvändningen i art. 10 hjälper inte till att positionera begreppen punktkällor och diffusa källor. I rubriken står det ett kombinerat tillvägagångssätt för punktkällor och diffusa källor men i art. 10(1) står det att medlemsstaterna ska se till att alla utsläpp till ytvatten, som avses i punkt 2, ska regleras genom ett kombinerat tillvägagångssätt utan att specificeras någon tydlig avgränsning förutom att all relevant gemenskapslagstiftning ska tas som utgångspunkt enligt punkten 2.

I påverkansanalysen, som regleras av bilaga II, står det att uppskattning och identifiering av betydande förorening från diffusa källor såsom tätorter, industrier, jordbruk och andra anläggningar och verksamheter, ska ske bland annat på grundval av uppgifter som har samlats in i enlighet med nitratdirektivet, växtskyddsmedelslagstiftningen och dricksvattendirektivet (bilaga II 1.4). När kommissionen exemplifierar diffusa utsläpp omnämns, exempelvis, fosfor (fosfater), växtskyddsmedel och partiklar,[57] och när det kommer till orsaken till utsläppen omnämns jordbruket och luftburna föroreningar.[58] Åtgärder för att förebygga och kontrollera utsläpp från diffusa föroreningar, vid källan, omfattar enligt kommissionen, bland annat, regleringen av gödningsmedel och gödselspridning, omställning av åkermark till gräsmark, buffertzoner, växelbruk, skapande och återställande av våtmarker.[59] Avseende vad som definieras som punktkällor i bilaga II är det källor som omfattas av avloppsdirektivet och IED (även priodirektivet) som exemplifieras som punktkällor.

Inom ramen för den tidigare vattenlagstiftningen har EU-domstolen definierat 'utsläpp' och 'diffusa källor' i två rättsfall. I och med att vattendirektivet ska bygga på den tidigare vattenlagstiftningen, som det upphävt, är det inte orimligt att ta som utgångspunkt att vattendirektivets två begrepp ska förstås i relation till domstolens definitioner.[60] EU-domstolen definierade 'utsläpp' och 'diffusa källor' i relation till art. 1(2)(d) i direktiv (76/464) om prioriterade ämnen och art. 5 i direktiv (86/280) om gränsvärden och kvalitetsmål för utsläpp av vissa farliga

[57] Commission Staff Working Document, 'Report on the Progress in Implementation of the Water Framework Directive Programmes of Measures' (n 16) 86.

[58] Commission Staff Working Document, 'European Overview River Basin Management Plans (2/2)' (n 49) 5.

[59] ibid 17, 30.

[60] Även IED följer inte rakt domstolens definition av begreppen och i art. 3(4) står det att utsläpp avser direkt eller indirekt utsläpp från punktkällor eller diffusa källor inom anläggningen. Men i och med att utsläppen sker inom anläggningen är det inte orimligt att se på IED definition av 'utsläpp' som detsamma som EU-domstolens definition av 'utsläpp', även om diffusa källor inom anläggningen kan inkluderas inom begreppet.

ämnen.[61] Domstolen definierade 'utsläpp', med utgångspunkt i direktiv om prioriterade ämnen, som en konstruktion som ska tillämpas på utsläpp av föroreningar som härrör från en handling som kan tillskrivas en person.[62] Definitionen av 'diffusa källor', utifrån direktiv (86/280), ansåg domstolen skulle appliceras på föroreningar som inte kan tillskrivas en viss person, eftersom den härrör från ett stort antal eller diffusa källor (och hanteras genom särskilda program, se art. 5 direktiv (86/280).[63] De två olika definitionerna medför att t.ex. placering av behandlade träpålar i vatten som behandlats med kreosot och som frigörs ur träpålarna i form av förorenande partiklar när pålarna kommer i kontakt med vatten ska ses som 'utsläpp' och inte en 'diffus källa'.[64] För att innefatta en handling under begreppet 'utsläpp' kan avståndet mellan ytvattnet och platsen som utsläppet sker vara relativt stort och omfattar förorenade ångor som först kondenseras på mark och tak och därefter återförs till ytvattnet genom ett dagvattenavlopp.[65] Om dagvattenavloppet tillhör verksamheten som släpper ut de förorenande ångorna är inte relevant.[66] Domstolens definitioner för med sig att, t.ex., spridningen av gödsel inte kan sägas vara en diffus källa enbart pga. att gödseln infiltrerar jorden innan den når vattenförekomsten utan det är rimligt att domstolens vida förståelse av konstruktionen 'utsläpp' också innefattar gödselspridning.[67] Även om gödselspridning definieras som 'utsläpp' måste det gå att knyta en eller flera personer till 'utsläppet' och om det är ett stort antal personer som orsakar utsläppet bör gödselspridningen ses som en diffus källa.

Jämförs domstolens begreppsanvändning med vattendirektivets art. 10 bör utgångspunkten vara att punktkällor i vattendirektivet motsvarar domstolens definition av 'utsläpp' och diffusa källor motsvara domstolens definition av motsvarande begrepp. Det vore orimligt om regleringar och åtgärder för diffusa källor, ett stort antal utsläpp som svårligen går att klart dela upp på olika personer, inte ska baseras på ett kombinerat tillvägagångsätt men däremot att punktkällor ska regleras så. Sammantaget är det rimligt, tills EU-domstolen får möjlighet att tolka begreppen, att utgå ifrån domstolens konstruktionsuppdelning och att både diffusa källor, enligt art. 11(3)(h), och punktkällor, enligt art. 11(3)(g), omfattas av art. 10.

5. Nitratdirektivet

5.1 En översikt

Nitratdirektivet har till syfte att minska och förhindra nitratföroreningar till yt- och grundvatten från jordbruksverksamhet (art. 1). Begreppet förorening inkluderar alla direkta och indirekta kväveföroreningar från jordbruket till vattenmiljön, som kan medföra risker för både människors hälsa, skada levande resurser och akvatiska ekosystem, men även begränsa rekreationsmöjligheter och störa annat berättigat nyttjande av vattnet (art. 2(j)).

För att leva upp till syftet i art. 1 har två målsättningar formulerats – 1) att halten nitrat, för yt- och grundvatten, inte ska överstiga eller riskera att överstiga 50 mg/l och att 2) det ska inte finnas någon risk för eutrofiering (art. 3(1), bilaga 1 A(2)), A(3)). Direktivet definierar eutrofiering som berikningen av vatten genom kväve

[61] Båda direktiven har upphävts till följd av vattendirektivets ikraftträdande och i vattendirektivets skäl 52 står det att vattendirektivet övertar den ram för reglering av föroreningar genom farliga ämnen som inrättades genom direktiv om prioriterade ämnen.
[62] C-232/97 (n 23) p. 42.
[63] ibid p. 42.
[64] ibid p. 47–48.
[65] C-231/97, Van Rooij [1999] p. 32, 33, 36.
[66] ibid.
[67] Notera att nitratdirektivet avser utsläpp till ytvatten i linje med domstolens begreppsanvändning i och med att gödselspridning eller hantering alltid kan tillskrivas en person.

som medför ökad tillväxt av alger och andra former av växtlighet som resulterar i att balansen mellan organismer i vattnet störs på ett oönskat sätt och vattenkvalitén negativt påverkas (art. 2(i)). EU-domstolen har uttalat sig om situationer där fosfor som eutrofierande ämne i relation till kväve är den framkallande faktorn och enligt domstolen skulle det motverka direktivets syfte om vissa eutrofierade vattenkategorier skulle uteslutas på grund av att kväveföroreningarna inte var den framkallande faktorn bakom eutrofieringen.[68]

Det är viktigt att se att EU-domstolens avgörande avseende interaktionen mellan kväve och fosfor inte utvidgar nitratdirektivets syfte, vilket är att minska utsläppen av nitrater från jordbruket och på så sätt undvika nitratnivåer om 50 mg/l och en risk för eutrofiering till följd av nitraterna. Domstolens avgörande förändrar inte heller vilka grundåtgärder (se nedan) som ska genomföras i nitratkänsliga områden utan domstolen menar endast att eutrofierade områden där fosfor är den begränsande/framkallande faktorn också ska ses om känsliga områden i nitratdirektivets mening. Medlemsstaterna får alltså inte avgränsa direktivet till områden där kväve är den framkallande faktorn i och med att det är relationen mellan dessa två ämnen som ligger till grund för eutrofiering.

Målsättningen om 50 mg/l överensstämmer med dricksvattendirektivets målsättning om tjänlig dricksvattenkvalité. Här har en kvalitetsstandard avsedd att skydda den allmänna hälsan omvandlats till en norm som ska gälla alla vatten, som omfattas av nitratdirektivet, även när den allmänna hälsan inte påverkas negativt.[69] När normen om 50 mg/l inte aktualiseras kan fortfarande eutrofieringsnormen bli aktuell om det finns störningar som på ett 'oönskat sätt' påverkar ett vattenområde alt vattenkvalitén 'negativt'.

Nitratdirektivet har två regleringsmetoder för att uppnå sitt syfte i art. 1 – områdesbestämmelser med generella föreskrifter för nitratkänsliga områden och generella riktlinjer om jordbrukssed. Ett område ska klassificeras som nitratkänsligt om halten nitrat överstiger 50 mg/l eller om det finns risk för eutrofiering (art. 3(1), 3(2)). Andra förutsättningar för utpekandet av nitratkänsligt område är att jordbruket väsentligt bidrar och att det finns ett behov av att åtgärderna inom ramen för art. 5 (se bilaga 3) implementeras. Ett nitratkänsligt område avser området från vilken avrinningen sker (art. 3(2)). Klassificeringen av områden ska ses över vart fjärde år (art. 3(4)) och översynen ska rapporteras till EU-kommissionen (art. 10, bilaga 5). Medlemsstaterna kan, i stället för att fastställa specifika områden, välja att klassificera hela territoriet som känsligt område och säkerställa ett skydd för alla vattenförekomster (art. 3(5)).

I och med att syftet med nitratdirektivet är att minska jordbrukets påverkan har en fråga varit hur mycket jordbruket måste påverka ett område för att det ska klassificeras som känsligt. EU-domstolen har sagt att jordbruket ska "väsentligt bidra" till 50 mg/l alt. eutrofiering för att ett område ska klassificeras som känsligt.[70] I ett senare avgörande menade domstolen att ett väsentligt bidrag kunde vara cirka 17 eller 19 % av den totala påverkan som nitratföroreningar har på ett område.[71] Inom ramen för avloppsdirektivet har domstolen ansett att 9,8 % var ett väsentligt bidrag och tillräckligt för att utpeka området som känsligt för eutrofiering.[72] De relativt låga nivåerna medför att andra aktiviteter eller åtgärder, som industrier, i lika hög kan bidra till, t.ex.,

[68] C-258/00, Commission v France [2002] p. 45, 50.
[69] William Howarth, 'The Progression towards Ecological Quality Standards' (2006) 18 Journal of Environmental Law 3.
[70] C-293/97, Standley [1999] p. 31, 40.
[71] C-221/03, Commission v Belgium [2005] p. 85–89.
[72] C-280/02, Commission v France [2004] p. 75, 77, 78.

eutrofieringen av ett nitratkänsligt område.[73] Samtidigt har domstolen påpekat att nitratdirektivet inte avser att jordbruket ska behöva ansvara för föroreningar som de själva inte bidragit till.[74]

När ett område utpekats som känsligt ska det etableras åtgärdsprogram (art. 5(1)), vilket kan avse samtliga områden eller ett för varje område (art. 5(2)), som ska genomföras inom fyra år (art. 4(4)). Enligt bilaga 3 ska åtgärdsprogrammen omfatta, bland annat, regler om:

- Tidsperioder med förbud om gödselspridning.
- Specifikation om stallgödselbehållarnas lagringskapacitet.
- Begränsningar av spridning av gödselmedel, utifrån markbeskaffenhet, jordtyp och lutning, och grödans beräknade kvävebehov.
- En begränsning om 170 kg N per hektar, avseende den mängd stallgödsel som årligen sprids på marken, inbegripet det som djuren själva tillför.

Enligt EU-domstolen måste denna typ av normer finnas och ska på ett klart och precist sätt implementeras för alla känsliga områden.[75] Förutom att upprätta åtgärdsprogram ska medlemsstaterna också övervaka effekterna av åtgärdsprogrammen och sedan se över och om nödvändigt uppdatera åtgärdsprogrammen (art. 6, 7).

Förutom utpekandet av känsliga områden ska medlemsstaterna implementera riktlinjer om god jordbrukssed för alla jordbruksområden, och inte bara nitratkänsliga områden (art. 4 (1)). Reglerna är inte bindande utan ska tillämpas på frivillig basis (art. 4(1)(a)). Grunden för riktlinjerna finns i bilaga 2 (art. 4(1)(a)) och god jordbrukssed bör innehålla rekommendationer om t.ex.:

- Tidsperioder när det inte är lämpligt att tillföra jorden gödselmedel.
- Villkor för att tillföra gödselmedel i närheten av vattendrag.
- Åtgärder för att förhindra vattenförorening genom avrinning och läckage.
- Planer för markutnyttjande, såsom växtföljd.

Åtgärdsprogrammen ska, förutom att innehålla åtgärder som återfinns i bilaga 3 (art. 5(4)(a)), också kompletteras med ytterligare åtgärder om de, samt riktlinjer om god jordbrukssed, visar sig otillräckliga för att uppnå syftet med direktivet (art. 5(5)). Det finns inte specificerat i direktivet vad som är ytterligare åtgärder men EU-domstolen har sagt att ytterligare åtgärder ska genomföras så fort medlemsstaten observerat att det finns ett behov av dem och inte senare.[76] Ovan diskuterades det om EU-domstolens avgörande har utvidgat direktivet till också inbegripa fosfor och slutsatsen var att direktivet i sitt syfte är avgränsat till nitrater. Frågan är om det går att utvidga direktivets följdverkningar, under konstruktionen 'ytterligare åtgärder', till att också inbegripa fosforutsläpp. Det övergripande målet med direktivet är att skydda människors hälsa, levande resurser och akvatiska ekosystem samt att säkerställa annan berättigad vattenanvändning.[77] För att uppnå detta övergripande mål syftar direktivet till att minska vattenföroreningar som orsakas eller framkallas av nitrater som härrör från jordbruket och förhindra ytterligare sådan förorening (art. 1). Avseende ytterligare åtgärder ska de, precis som grundåtgärderna, ha som avsikt att uppnå syftet med direktivet och syftet är att minska vattenföroreningar som orsakas eller framkallas av nitrater som härrör från jordbruket (art. 1, 5(5)). I och

[73] C-221/03 (n 69) p. 84.
[74] C-293/97 (n 68) p. 51.
[75] ibid p. 71–75.
[76] C-322/00, Commission v Netherlands [2003] p. 166.
[77] C-258/00, Commission v France, Opinion of Advocate General Geelhoed [2000] p. 38.

med att eutrofiering uppstår utifrån sambandet mellan fosfor och kväve kan ytterligare åtgärder, inom ramen för nitratdirektivet, utformas för att hantera utsläppen av nitrater utifrån fosfor och kväve-relationen, som leder till eutrofiering men inte fosfor enbart.

Att nå upp till direktivets minimikrav har varit svårt för vissa medlemsstater och framförallt har kraven i bilaga 3 som fastställer maxbelastningen av kväve per hektar, varit svåra att leva upp till för bland annat Irland, Nederländerna, Belgien (Flandern) och Danmark. Kommissionen har undantagit medlemsstaterna från minimikravet, men inte utan att specificera villkor som ska medföra att direktivets syfte inte äventyras (se bilaga 3 (2)(b)). Medlemsstaternas ansökan om undantag möjliggör för kommissionen att införa mer detaljerade krav på medlemsstaterna än vad direktivet medför, vilket kommissionen också gjort och, bland annat, specificerat växtföljder och vilka typer av grödor som får användas.

5.2 Artikel 11(3)(h) och nitratdirektivet

För att koordinera nitratdirektivet och vattendirektivet är begreppet ytterligare åtgärder intressant för att se hur mycket av vattendirektivet art. 4-mål som kan omfattas av nitratdirektivet. Tolkningen av begreppet som givits ovan öppnar inte för att agera emot jordbruksverksamheternas bidrag till eutrofiering på områden som inte avser regleringen av nitrater. Även om det inte finns några öppningar i nitratdirektivet för att ställa andra typer av krav än de som återfinns i nitratdirektivet innehåller vattendirektivet bestämmelser som påverkar medlemsstaternas genomförande av nitratdirektivet i och med art. 11(3)(a)(h) och art. 10.

Regleringen av fosfor i nitratkänsliga områden måste, i och med nitratdirektivets avgränsade syfte, följa utav art. 11(3)(h). Det är alltså en grundläggande åtgärd att komplettera nitratdirektivet reglering av nitrater med t.ex. regleringar avseende fosfor i nitratkänsliga områden om art. 4-mål behov finns. Eftersom avsikten är att vattendirektivet ska resultera i en mer samordnad reglering av diffusa källor (och punktkällor) är det rimligt att medlemsstaterna ser om det går att inkludera regleringen av fosforutsläpp till ytvatten inom ramen för åtgärdsprogrammen under nitratdirektivet. För att på så sätt undvika överlappande nationella regleringar som riskerar att bli oöverskådliga för enskilda och verksamhetsutövare. I och med att det inte finns någon nedre gräns för när ett utsläpp omfattas av art. 10 eller art. 11(3)(h) är det rimligt att alla mindre fosforföroreningar som är svåra att spåra hanteras med generella föreskrifter och alla större föroreningar som går att spåra till en person regleras genom både generella föreskrifter och verksamhetsspecifika regleringar i linje med art. 11(3)(g). Det som krävs för att realisera detta är att medlemsstaterna agerar i linje med vattendirektivet och samordnar insatserna till följd av nitratdirektivet med insatser för att uppnå art. 4-målen, vilket är ett krav enligt art. 10 och art. 11(3)(h). Dessutom är god status en generell vattenskyddsnorm som gäller för alla vattenförekomster och inte bara inom nitratkänsliga områden vilket ger normen en dignitet som enligt EU-domstolens praxis för med sig att art. 4-målen ska ha företräde framför nitratdirektivets mer specialiserade/avgränsade normer.

Sammantaget finns det krav i art. 10 och art. 11(3)(h) som medför att regleringen i nitratkänsliga områden ska anpassas om det behövs för att uppnå vattendirektivets art. 4-mål. För både enskilda och verksamhetsutövare vore det önskvärt med en samordning mellan direktiven nationellt för att bilda ett överskådligt regelverk som sätter en uppdaterad form av nitratdirektivets åtgärdsprogram i sitt centrum.

6. Avloppsdirektivet

6.1 En kort introduktion

Direktivet omfattar hopsamling, rening och utsläpp av avloppsvatten från tätbebyggelse samt rening och utsläpp av avloppsvatten från vissa industrisektorer.[78] Syftet med avloppsdirektivet är att skydda miljön från skadliga inverkningar från avloppsvatten (art. 1). Målet med reningen av avloppsvattnet är att i huvudsak få en bättre vattenkvalité och minskad eutrofieringen i sjöar, vattendrag och kuster.

Direktivet innebär att det ställs ett antal minimikrav på avloppsreningsverk av en viss storlek och dess verk måste ha minst sekundär rening så att kvaliteten på det renade vattnet når upp till direktivets minimikrav (art. 4(1)). Sekundär rening definieras i direktivet som rening av avloppsvatten från tätbebyggelse genom biologisk rening med sekundärsedimentering eller någon annan process som uppfyller de krav som anges i tabell 1 i bilaga 1 (art. 2(8)). Direktivets krav om rening av avloppsvatten gäller för alla avloppsreningsverk i anslutning till tätorter med mer än 2 000 personekvivalenter[79] (PE fortsättningsvis) för sötvatten/flodmynningar eller 10 000 PE för kustvatten (art. 3(1)). Som en del i att uppnå syftet med direktivet ska medlemsstaternas behöriga myndigheter säkerställa att utsläpp av avloppsvatten från reningsverk omfattas av på förhand fastställda regleringar och/eller särskilda tillstånd (art. 12(2), se även bilaga 1(B) och art. 12(3)). Regleringarna/tillstånden ska ses över (art. 12(4)). För reningsverk som inte omfattas av direktivets huvudkrav, dvs. med mindre än 2 000 PE vid sötvatten/flodmynningar och 10 000 PE vid kustvatten, ska avloppsvattnet undergå en rening (definieras som 'tillräcklig rening') som resulterar i sådan kvalitet att tillämpliga kvalitetsmål och andra bestämmelser i detta och andra direktiv är uppfyllda (art. 2(9), art. 7).

Medlemsstaterna ska utpeka känsliga områden enligt bilaga 2(A) (art. 5(1)). Enligt bilagan ska en vattenmassa (sötvatten, flodmynningar och kustvatten) utpekas som känslig om den konstateras vara eutrofierad eller om den kan bli eutrofierad inom en nära framtid om inte förebyggande åtgärder vidtas.[80] För dessa känsliga områden ska avloppsvattnet undergå mer långtgående rening av kväve och fosfor vid reningsverk med 10 000 PE eller mer (se bilaga 2). Halten totalt kväve i utgående vatten får inte vara högre än 15 mg/l för verk mellan 10 000 och 100 000 PE, 10 mg/l för verk med en belastning över 100 000 PE, alternativt krävs en reningsgrad av minst 70 procent av inkommande kväve (bilaga 1 tabell 2). Motsvarande värden för totalt fosfor är 2 mg/l för 10 000–100 000 PE verk och 1 mg/l för verken med mer än 100 000 PE, med en minsta procentuell reduktion om 80 % (bilaga 1 tabell 2). Strängare krav än de som återfinns i tabell 1 och 2 ska tillämpas om det behövs för att säkerställa att recipienten uppfyller kraven i andra tillämpliga direktiv (bilaga 1 (B)), vilket också gäller för reningsverk utanför områden som är känsliga för eutrofiering. Utpekandet av känsliga områden ska ses över med högst 4 års mellanrum (art. 5(6)).

6.2 Artikel 11(3)(g) och avloppsdirektivet

I avloppsdirektivet finns det öppningar för att koordinera och anpassa avloppsdirektivets krav om sekundär rening och tillräcklig rening samt kväve och fosfor utsläppskraven i eutrofieringskänsliga områden om det behövs för att recipienten ska uppfylla kraven eller kvalitetsmålen

[78] Industrisektorn har avgränsat bort.

[79] Den mängd nedbrytbart organiskt material som har en biokemisk syreförbrukning på 60 g löst syre per dygn under fem dygn (BOD5) (art. 2(6)).

[80] Vad som är ett eutrofierat vatten under avloppsdirektivet har avhandlats av EU-domstolen, kanske mest långtgående i C-390/07, Commission v United Kingdom [2009] p. 26–39.

i andra tillämpliga direktiv. För alla reningsverk som omfattas av avloppsdirektivet finns det öppningar för att anpassa kraven som följer av direktivet så att dessa överensstämmer med de krav som följer av vattendirektivet.

Det ska påminnas att avloppsdirektivet, precis som nitratdirektivet, har en tydlig avgränsning i det här fallet till avloppsvatten och har vissa regleringslösningar för avloppsvatten som begränsar räckvidden av avloppsvattendirektivet. Skillnaden mellan avloppsdirektivet och vattendirektivets art. 11(3)(g) är att den senare är begränsad till utsläpp från punktkällor som kan ge upphov till föroreningar och inte vad som definieras som punktkällor i gemenskapsrätten i övrigt, inklusive avloppsdirektivet.[81] I och med det inkluderas alla reningsverk av kraven i art. 11(3)(g), även sådan som inte omfattas av avloppsdirektivet, i och med att det inte finns någon nedre gräns för vilka punktkällor som kan inkluderas av art. 11(3)(g).

Genom att de mest långtgående kraven i avloppsdirektivet finns i känsliga områden och områdesföreskrifterna är avgränsade till större reningsverk är det de mindre reningsverken som regleringsmässigt undkommit strängare utsläppskrav inom ramen för avloppsdirektivet. Vattendirektivets regleringskrav kompletterar avloppsdirektivets inom det här området och vid statusbehov ska kraven höjas även för dessa reningsverk, vilket är i linje med de möjligheter för genomslag av annan gemenskapsrätt som finns i avloppsdirektivet och ett krav enligt art. 11(3)(g) och art. 10. Dvs. inom ramen för avloppsdirektivet i relation till art. 11(3)(a) och art. 10 ska det inom eutrofieringskänsliga områden finnas fosfor och kväve normerna som enligt bilaga 1 tabell 2 anpassas till att också uppnå art. 4-målen, utanför dessa områden ska reningen av avloppsvatten, som bestäms av bilaga 1 tabell 1, anpassas så att art. 4-målen uppnås och för de minsta verken måste numera 'tillräcklig rening' förstås som rening av avloppsvatten som medför att art. 4-målen uppnås i den mottagande recipienten. Anpassningen av avloppsdirektivet till vattendirektivet ska om möjligt ske så att målen för avloppsdirektivet uppnås, om så inte blir fallet är det rimligt att, likt kommissionen och EU-domstolen, höja upp art. 4-målen över avloppsdirektivets målsättningar. Räcker inte anpassningen utan det uppstår ett behov av att införa generella förskrifter för kväve och fosfor även utanför eutrofieringskänsliga områden definieras regleringsåtgärden som en grundläggande åtgärd enligt art. 11(3)(g) i och med avloppsdirektivets regleringsavgränsningar.

7. Regleringen av punktkällor och diffusa källor i svensk rätt

7.1 Miljöbalkens generella regler för punktkällor och diffusa källor

Vattendirektivet art. 11(3)(g)(h) ställer upp ett antal reglerings- och uppdateringskrav som svensk rätt behöver möta på ett adekvat sätt. Samtidigt finns det även innan vattendirektivet regleringar till följd av avloppsdirektivet och nitratdirektivet i svensk rätt och frågan är vad vattendirektivets kompletterande krav har fått för följdverkningar för det svenska genomförandet av nitratdirektivet och avloppsdirektivet. Nedan kommer först miljöbalkens (fortsättningsvis MB) allmänna regler för punktkällor och diffusa källor översiktligt jämföras med art. 11(3)(g)(h) och sedan kommer det svenska genomförandet av avloppsdirektivet och nitratdirektivet studeras utifrån kraven som följer av vattendirektivet.

7.1.1 Punktkällor

Svensk rätt bör väsentligen uppfylla kraven på utsläppsreglering i art. 11(3)(g). Det är bestämmelserna i MB, främst tillståndsplikt i 9 kap. samt de

[81] Chave (n 45) 101–102.

allmänna hänsynsreglerna och tillsynssystemet, som bildar ett system för utsläppsregleringar.[82] Exempelvis ska avloppsanläggningar med en anslutning av fler än 2 000 personekvivalenter räknas som B-anläggningar och anläggningar som är dimensionerade för mer än 200 PE men färre än 2 000 räknas som C-anläggning (28:1 och 28:2 §§ miljöprövningsförordning). Åtgärdsprogrammen ska också, enligt 6:5 § förordning (2004:660) om förvaltning av kvaliteten på vattenmiljön, innehålla åtgärder för att åstadkomma omprövning av tillstånd/villkor för miljöfarlig verksamhet, om det finns ett behov. På så sätt är avsikten att det ska ske en översyn av tillstånd och villkor av vattenmyndigheterna var sjätte år, i linje med art. 11(3)(g). Samtidigt utgår systemet ifrån att andra myndigheter ska initiera omprövning av tillstånd efter vattenmyndigheternas översyn och omprövningstakten är låg.[83] Dvs. även om det finns förutsättningar för att ompröva tillstånd sker det sällan, framförallt beroende av kostnader, resurser och komplexiteten att driva omprövningsärenden.[84]

Det finns också punktkällor som inte har något tillstånd och punktkällor som har anmälts till en kommunalnämnd som potentiellt kan påverka uppnåendet av art. 4-målen men inte fullt ut förhandsprövas. Syftet med anmälningsplikten är att en kommunal nämnd informeras och utifrån sitt tillsynsansvar kan agera emot verksamheten med föreläggande om försiktighetsmått utifrån bl.a. 2 kap. MB. Nämnden kan också förelägga verksamhetsutövaren att ansöka om tillstånd om verksamheten ”medför risk för betydande föroreningar eller andra betydande olägenheter för människors hälsa eller miljön”.[85] I och med att möjligheten att förelägga om tillstånd är begränsat är förelägganden om försiktighetsmått (26:9 § MB) den kommunala nämndens viktigaste verktyg för punktkällor utan tillstånd. I och med att det inte finns något undantag från förhandsprövning i art. 11(3)(g) (såsom i art. 11(3)(e)) borde möjligheterna att förelägga om tillstånd kunna utökas för att säkerställa att alla verksamheter som riskerar att äventyra art. 4-målen kan förhandsprövas genom en tillståndsprocess.

7.1.2 Diffusa källor

Bestämmelserna om miljöfarlig verksamhet i 9:1 § MB inkluderar också diffusa källor. För diffusa källor där det finns en verksamhetsutövare att agera mot finns det möjligheter att, bland annat, utifrån 9 kap MB styra upp verksamhetens diffusa påverkan precis som för punktkällor. Här kan också påminnas om tillsynsinstrumentet i 26:9 § MB som möjliggör för tillsynsmyndigheten att agera emot diffusa utsläpp av föroreningar som leder till att art. 4-målen inte uppnås.

Avseende diffusa utsläpp till ytvatten som inte går att hänföra till en person finns det bestämmelser i MB som ger möjlighet att meddela generella föreskrifter. För miljöfarlig verksamhet finns det möjligheter för regeringen eller myndighet att utfärda generella föreskrifter för alla verksamheter om, bland annat, utsläppsbegränsning enligt 9:5 § MB. Även enligt 9:4 § MB kan regeringen förbjuda utsläpp av, t.ex., avloppsvatten, för verksamheter har inte har tillstånd till utsläppet, en begränsning som inte finns i 9:5 § MB. Andra regler som ger möjlighet att reglera diffusa källor är reglerna om miljöskyddsområde i 7:19 och 20 §§ MB.[86] Vattenmyndigheternas åtgärdsprogram har också en viktig funktion i utformningen av åtgärder och regleringar för diffusa källor i och med att ett åtgärdsprogram

[82] Miljöbalkskommittén (n 34) 190–191.
[83] Gabriel Michanek and Charlotta Zetterberg, Den Svenska Miljörätten (4th edn, Iustus 2017) 415–424.
[84] ibid.
[85] Se 26:9 § MB, 9:6 a § MB, 26 a § förordningen om miljöfarlig verksamhet och hälsoskydd.
[86] Michanek and Zetterberg (n 81) 231–232.

får omfatta all verksamhet och alla åtgärder som kan påverka möjligheten att följa miljökvalitetsnormer, enligt 5:6 § MB.

7.2 Avloppsdirektivet

I kommissionens åttonde rapport om genomförandet av avloppsdirektivet påpekar kommissionen att Sverige inte når upp till en fullständig efterlevnad av vare sig minimikraven i direktivet (98 % efterlevnad) eller mer långtgående rening i eutrofieringskänsliga områden (89 % efterlevnad).[87] I NV:s rapport om rening av avloppsvatten finns det en liknande bild, framförallt är det de mindre inlandsreningsverken, 2 000–10 000 PE, och de mellanstora, 10 000–100 000 PE, som inte når upp till den nödvändiga reningsnivån.[88]

Det huvudsakliga genomförandet av avloppsdirektivet finns i NFS 2016:6. Naturvårdsverket har med stöd av framförallt 47 § p. 5 i förordningen om miljöfarlig verksamhet och hälsoskydd meddelat NFS 2016:6 och den innehåller avloppsdirektivets generella minimikrav avseende rening av avloppsvatten. Bemyndigandet följer på så sätt uppdelningen som finns i 5:1 § MB som innebär att myndigheter får besluta om föreskrifter som följer av EU-rätten, vilket som regel motsvarar en EU-bestämd miniminivå.[89]

Om NFS 2016:6 jämförs med avloppsdirektivets återfinns kravet om att avloppsvatten ska genomgå sekundär rening i 5 § och i tabell 1 och 2 ges de koncentrationer som inte får överskridas, som årsmedelvärde. Enligt 6 § och 9 § i NFS 2016:6 ska avloppsvatten från tätbebyggelse med mer än 10 000 PE som släpps ut i eller bidrar till förorening av kustvatten från norska gränsen till Norrtälje kommun (eutrofieringskänsligt område) genomföra ytterligare rening av kväve och begränsningsvärdena för totalkväve i tabell 3 överensstämmer med avloppsdirektivet.

Det som inte återfinns i någon av föreskrifterna är direktivets målsättning om totalfosfor, som i direktivet återfinns i samma tabell som totalkväve (se bilaga 1 tabell 2 i direktivet). Enligt Naturvårdsverket har Sverige en hög rening av fosfor, i genomsnitt 95 % för både inlands (0,2 mg/l) och kustnära (0,23 mg/l) reningsverk.[90] Ser man till villkoren i tillståndsgivningen finns det exempel på fosforutsläpp kring 0,2–0,3 mg/l totalfosfor.[91] Det ska jämföras med direktivets krav om 1 mg/l (10 000–100 000 PE) eller 2 mg/l (mer än 100 000 PE), alternativt en reningsgrad på minst 80 % (se bilaga 1 tabell 2 i direktivet). I och med att Naturvårdsverket bara har bemyndigande att föreskriva om minimikraven i direktivet, och direktivets minimikrav avseende fosfor är så höga jämfört med svenska regleringar, finns det inte någon anledning att föreskriva om fosforsbegränsningar i NFS 2016:6. Däremot finns det ett krav om att fosforutsläppen ska övervakas enligt 12 § och tabell 4, vilket är ett krav enligt direktivet (se bilaga 1(D)(4)).[92]

Enligt Naturvårdsverkets skrift för skyddade områden enligt vattendirektivet har Sverige också bedömt att samtliga reningsverk, inom ramen för direktivet, behöver rena sitt avlopps-

[87] Kommissionen, 'Åttonde rapporten om situationen för genomförandet och programmen för genomförande (i enlighet med artikel 17) av rådets direktiv 91/271/EEG om rening av avloppsvatten från tätbebyggelse' (2016) COM(2016) 105 final 7; Commission Staff Working Document, 'Eighth Report on the Implementation Status and the Programmes for Implementation (as Required by Article 17) of Council Directive 91/271/EEC Concerning Urban Waste Water Treatment' (2016) 4.

[88] Naturvårdsverket, 'Rening av avloppsvatten i Sverige' (2014).

[89] Prop. 1994/95:181, Vissa ändringar i miljölagstiftningen till följd av EU-medlemskapet 1995 18–19.

[90] Naturvårdsverket (n 86).

[91] Se exempelvis MÖD Mål nr M 2566–07 och MÖD Mål nr M 8417–11.

[92] Mark- och miljööverdomstolen, i M 8156–09 (2010-10-15), diskuterades bundenheten och om föreskrifterna föreskriver minimikrav, direktivet är ett minimidirektiv och strängare krav kan ställas utifrån 2:3 § MB.

vatten från fosfor i och med att allt inlandsvatten och kust/havsvatten är utpekade som fosforkänsliga områden enligt avloppsdirektivet.[93] Samma uttalande finns i Naturvårdsverkets skrift 'Rening av avloppsvatten i Sverige 2014', dvs. att hela Sverige är känsligt för utsläpp av fosfor.[94] När delar av Sveriges genomförande av avloppsdirektivet prövades av EU-domstolen menade domstolen att samtliga svenska vatten är känsliga för eutrofiering eller löper risk att drabbas av eutrofiering med anledning av fosforutsläpp.[95] Men Naturvårdsverket verkar aldrig ha genomfört något officiellt utpekande av att Sverige som helhet skulle vara ett känsligt område för fosfor. Det finns omnämnt på olika platser – vattenmyndigheterna, som ett exempel, hänvisar till Naturvårdsverkets skrift för skyddande områden på sin webbplats.[96] Det är också oklart om Naturvårdsverket har föreskriftsansvar för att peka ut känsliga områden i och med att verket bara har rätt att meddela föreskrifter om försiktighetsmått vid rening av avloppsvatten från tätbebyggelse, utifrån direktivets minimikrav. Det är inget problem att geografiskt differentiera försiktighetsmåtten men det finns inget i 47 § som ger verket möjlighet att klassificera delar av landet som känsligt eller inte. Första föreskriften var bemyndigad genom 2 a § och 17 § punkt 2 miljöskyddsförordningen (1989:364) som baserades på 5 a § miljöskyddslagen, och inte heller där finns det bemyndigande att föreskriva om områdesuppdelningar utifrån känslighet för fosfor eller kväve. Naturvårdsverket har ett bemyndigande att föreskriva om försiktighetsmått men inte utfärda en områdesföreskrift. Det finns möjligheter att utfärda generella föreskrifter för avloppsvatten enligt 9:4 och 9:5 §§ MB om EU-rätten kräver det, vilket medför att det är här som stöd för att utfärda geografiskt avgränsade föreskrifter som medför mer långtgående krav om rening av avloppsvatten ska sökas.

7.2.1 Diskussion

Tanken med Naturvårdsverkets föreskrifter är att etablera en miniminivå, utifrån avloppsdirektivet, och att strängare krav ska ställas med utgångspunkt i 2:3 § MB när reningsverk tillståndsprövas. Lagstiftaren har tidigare utpekat reningsverk som ett regleringsområde där omprövning av varje verk framstår som onödigt, bland annat med tanke på de resurser som omprövningsförfarandet tar, och att reningsverk med fördel kan uppdateras genom generella föreskrifter och inte enskilda omprövningar.[97]

Med tanke på att utsläppsnormerna för fosfor i avloppsdirektivet inte är moderna och inte överensstämmer med vad som, t.ex., följer av MB:s 2 kapitel har Naturvårdsverket agerat så långt som verket har bemyndigande att göra när verket valt att exkludera avloppsdirektivets utsläppsnormerna för fosfor från NFS 2016:6. En situation där NFS 2016:6 hade innehållit utsläppsnormerna för fosfor hade föreskriften skapat en minimireferens för fosfor som var helt omodern för villkorskrivningen vid tillståndsgivning. Samtidigt räcker den svenska lagstiftningen inte riktigt till i och med att det är ett krav enligt avloppsdirektivet och vattendirektivet att anpassa minimikraven i avloppsdirektivet till andra kvalitetsmål i gemenskapsrätten såsom vattendirektivets art. 4-mål. För att leva upp till gemenskapsrätten måste ribban höjas i NFS 2016:6 så att föreskriften, utifrån avloppsdirektivets regleringslösningar, upprättar minimikrav som motsvarar ett uppnående av art. 4-målen. I

[93] Naturvårdsverket, 'Skyddade områden enligt förordning (2004:660) om förvaltning av kvaliteten på vattenmiljön' (2008) 10.

[94] Naturvårdsverket (n 86) 14.

[95] C-438/07, Commission v Sweden [2009] p. 34.

[96] http://extra.lansstyrelsen.se/viss/Sv/detta-beskrivs-i-viss/skyddade-omraden/Pages/avlopp-omraden.aspx

[97] Prop. 1997/98:45, Miljöbalk, del 1 342–343, 479.

och med att det är art. 4-målen, tillsammans med avloppsdirektivet mål, som ligger till grund för den individuella prövningen enligt 2 kap. MB skulle den förslagna uppdateringen av föreskriften också medföra att den motsvarar vad som är ett minimikrav enligt MB, vilket gör att ambitionsnivån i föreskriften motsvara nivån som finns i den högre lagen.[98] Om 2 kap. MB och föreskriften har motsvarande minimikrav finns det förutsättningar för större samordning i den svenska regleringen.

Miljömässigt verkar det mest motiverat med ytterligare regleringar för utsläppen av fosfor, generellt, och kväve för mindre reningsverk under 10 000 PE. Även mindre reningsverk 200–2 000 PE och reningsverk under 200 PE har utpekats som miljöproblem pga. deras bristande reningsteknik.[99] Det är här relevant att påminna om art. 2(9) och art. 7 i avloppsdirektivet som säger att avloppsvatten från tätorter med mindre än 2 000 PE, som sker till sötvatten och flodmynningar, och utsläpp från tätorter med mindre än 10 000 PE, som sker till kustvatten, där ska avloppsvattnet undergå 'tillräcklig rening'. 'Tillräcklig rening' definieras i art. 2(9) som rening av avloppsvatten från tätbebyggelse som medför att recipienten efter utsläpp är av sådan kvalitet att tillämpliga kvalitetsmål och andra bestämmelser i detta och andra gemenskapsdirektiv är uppfyllda. Art. 2(9) är, precis som art. 10 i vattendirektivet, inte statisk i sin referens till övrig gemenskapslagstiftning utan är en dynamisk konstruktion som öppnar för att strängare krav ställs på utsläpp av avloppsvatten (se även bilaga 1 (B)). I avloppsdirektivet finns alla delar på plats, EU-rättsligt, för att koordinera och skapa en samordnad reglering av reningsverkens utsläpp av avloppsvatten. För ett effektivt genomslag av gemenskapsrätten synes det mest effektivt att samordna avloppsdirektivets och vattendirektivets målsättningar när utsläppsnivåer för reningsverk bestäms både generellt genom en generell föreskrift och i den individuella prövningen.[100]

Till skillnad från avloppsdirektivet finns det inga gränsvärden för fosfor och kväve i vattendirektivet även om både fosfor och kväve utpekas som förorenande ämnen i vattendirektivet (se bilaga VIII). Skillnaden är relevant i och med att det i avloppsdirektivet finns EU-normer medan det i vattendirektivet inte finns några motsvarande normer (se t.ex. vattendirektivet bilaga V 1.2.6, bilaga VIII). Det medför att en anpassning av NFS 2016:6 kräver en annan delegationsordning och bemyndigande för att Naturvårdsverket ska kunna anpassa föreskriften till vattendirektivet och införliva strängare krav än avloppsdirektivets minimikrav. Enligt svensk rätt är det regeringen som ska föreskriva om den här typen av normer enligt 5:1 § MB (se även 9:4 och 9:5 §§ MB).[101]

För att Sverige ska leva upp till kraven i både avloppsdirektivet och vattendirektivet måste det ske en anpassning av genomförandet av avloppsdirektivet till vattendirektivets art. 4-mål och där regleringsmöjligheterna i avloppsdirektivet inte räcker till måste ytterligare åtgärder genomföras i linje med art. 11(3)(g). I båda fallen ligger bollen, pga. delegationsordningen hos lagstiftaren. Dessvärre är den nuvarande regeringen är den fjärde i ordningen som, än så länge, inte uppdaterat det svenska genomförandet av avloppsdirektivet till den nya spelplanen som vattendirektivet medför.

[98] Diskuteras av Nilsson (n 19).

[99] Statistiska centralbyrån och Naturvårdsverket, 'Utsläpp till vatten och slamproduktion 2014' (2016).

[100] European Commission, Directorate-General Environment, 'Defining Water Framework Directive and Pre-Water Framework Directive Measures' (2010) 21.

[101] Se även Olsen Lundh (n 37) 332–336.

7.3 Nitratdirektivet

Enligt EU-kommissionen har Sverige (tillsammans med Finland) de lägsta nitratnivåer i EU, i både sötvatten och grundvatten. Även om Sverige i stort uppnår normen om 50 mg/l återstår fortfarande eutrofieringsproblemet. Kommissionen har lyft några olika frågor rörande Sveriges genomförande av nitratdirektivet, både i relation till rapporteringen som sker till följd av nitratdirektivet och vattendirektivet. Kommissionen har rekommenderat Sverige att se över påverkanstrycket från jordbruket och undersöka om det kommer hanteras av de grundläggande åtgärderna i art. 11(3), framförallt nitratdirektivet, eller om det krävs kompletterande åtgärder enligt art. 11(4).[102] Dessutom rekommenderas Sverige att basera utpekandet av känsliga områden på vattendirektivets art. 4-mål och lägga mer fokus på att reducera påverkanstrycket från fosfor i kustområden.[103]

Nitratdirektivet har i huvudsak genomförts genom ett bemyndigande, i 12:10 § MB, till Jordbruksverket att utfärda föreskrifter om begränsningar av antalet djur i jordbruket, försiktighetsmått för gödselhantering och växtodling. Föreskrifterna som utformas utifrån 12:10 § MB är inte begränsade av rättskraften som erhålls vid tillståndsgivning (se 24:1 § MB). Det innebär att 12:10 § MB kan användas för att begränsa eller förändra villkoren i ett tillstånd om det kan anses skäligt från miljöskyddssynpunkt. Jordbruksverket har utifrån bemyndigandet utfärdat Statens jordbruksverks föreskrifter och allmänna råd (SJVFS 2004:62) om miljöhänsyn i jordbruket vad avser växtnäring (tillsvidare nitratföreskrifterna). Det är i nitratföreskrifterna som de flesta av nitratdirektivets artiklar är implementerade, men även i förordning (1998:915) om miljöhänsyn i jordbruket (tillsvidare FMJ) är vissa artiklar implementerade.

Områden som utsetts som nitratkänsliga återfinns i 5 § FMJ och i bilaga 2 samt bilaga 3 till nitratföreskrifterna, där har Jordbruksverket sammanställt vilka områden som utpekats som känsliga. Vid utpekandet av känsliga områden är det Jordbruksverket enligt 15 § FMJ som ska ta fram underlag för utpekandet enligt art. 3(4) och art. 10 nitratdirektivet, ett underlag som sedan ska lämnas till regeringen för beslut. Det finns inga regler avseende övervakning eller utpekande implementerade utan istället hänvisas det i 15 § FMJ till nitratdirektivet art. 3(4) och art. 10. Det innebär också att vare sig art. 6, art. 4, art. 3 eller definitioner i art. 2 finns implementerade i svensk rätt. Fokus i svensk rätt är på art. 5(4) och bilagorna 2 och 3 som lägger grunden för åtgärdsprogrammen och vad som är god jordbrukssed. De mer detaljerade kraven som återfinns i direktivet, framförallt bilaga 2 och 3, har implementerats i nitratföreskrifterna och exempelvis finns där kravet om 170 kg totalkväve per hektar spridningsareal och år för känsliga områden (19 a § nitratföreskrifterna). Det finns även begränsningar av tidsperioder, mängd, markförhållanden, tillvägagångsätt, och lagring av gödsel i nitratföreskrifterna (se exempelvis 24, 24(a), 24(b) §§). I 8 § nitratföreskrifterna finns det också begränsning av fosfortillförsel, vilket inte direktivet innehåller. Direktivets krav om djurhållning och gödselhantering, god jordbrukssed, har implementerats i 5–10 § FMJ. God jordbrukssed har till största delen implementerats som generella föreskrifter och är på så sätt inte frivilliga, vilket medför att den svenska implementeringen går längre än vad direktivet i grunden kräver.

Medlemsstaterna ska se över sina nitratkänsliga områden och Jordbruksverket genomförde en översyn 2014 (enligt 15 § 2 st. FMJ), samt uppdaterade åtgärdsprogrammen för känsliga

[102] Commission Staff Working Document, 'Report on the Progress in Implementation of the Water Framework Directive Programmes of Measures' (n 16) 137–138.
[103] ibid.

områden 2016 (enligt 15 § 3 st. FMJ). Översynen av känsliga områden innebar en mindre utökning av området och idag är 73 % av all åkermark och 62 % av betesmarken i Sverige inom nitratkänsliga områden. I nitratkänsliga områden finns cirka 37 000 företag (2013) med en areal över 2 hektar åkermark, vilket innebär att drygt 50 % av landets jordbruksföretag och ungefär 60 % av djurgårdarna med mer än 10 djurenheter finns inom det nitratkänsliga området.[104] Avseende vattendirektivets påverkan på Jordbruksverkets genomförande av nitratdirektivet menar verket att utpekandet av nitratkänsliga områden har anpassats till vattendirektivet genom att alla vattenförekomster som utpekats av vattenmyndigheterna som eutrofierade och jordbruket har ett väsentligt bidrag har pekats ut som nitratkänsligt område.[105] I åtgärdsprogrammen för nitratkänsliga områden finns det däremot ingen tydlig anpassning till vattendirektivets krav.[106] Jordbruksverket menar dessutom att det inte går att förvänta sig några stora skillnader i miljötillstånd i sjöar eller hav på grund av att det finns en tidsfördröjning mellan minskad påverkan och minskad eutrofiering.[107] Dvs. enligt Jordbruksverket finns det problem med eutrofiering i nitratkänsliga områden, men verket anser inte att problemet går att lösa med ytterligare åtgärder inom ramen för nitratdirektivet, pga. tidsfördröjningen.

7.3.1 Diskussion

Nitratdirektivets åtgärdsprogram ska som helhet baseras på bästa tillgängliga vetenskapliga och tekniska data och ytterligare åtgärder ska genomföras så fort medlemsstaten observerat att det finns ett behov av dem och inte senare.[108] Direktivet definierar inte ytterligare (eller skärpta) åtgärder utan dessa ska komplettera åtgärderna som finns i bilaga 3 och god jordbrukssed. Det svenska genomförandet av nitratdirektivet möter här samma problematik som diskuterades inom ramen för avloppsdirektivet avseende bemyndigandet att utfärda generella föreskrifter och det är endast bilaga 3-åtgärder som Jordbruksverket har bemyndigande att föreskriva om enligt 12:10 § MB. I vattenmyndigheternas åtgärdsprogram finns det ett antal åtgärder som berör jordbruket såsom strukturkalkning, fosfordammar, andra skyddszoner än vid gödselspridning, tvåstegsdiken, kalkfilterdiken och våtmarker.[109] Alla dessa åtgärder skulle kunna vara ytterligare åtgärder inom ramen för nitratdirektivet, förutsatt att de faller inom ramen för direktivets regleringsområde, men ligger utanför bemyndigandet i 12:10 § MB.

Samtidigt framgår det inte i Jordbruksverkets översyn av åtgärdsprogrammet att en skärpning av grundåtgärderna inte vore lämpligt med tanke på eutrofieringsproblematiken eller vattendirektivets art. 4-mål. Även om det vore mer kostnadseffektivt att genomföra t.ex. strukturkalkning än utvidga det gödselfria området vid vattendrag är det rimligt att fråga sig om nitratföreskrifterna är i linje med intentionerna i nitratdirektivet med tanke på att eutrofieringsproblemet kvarstår. När kommissionen undantar olika medlemsstater från 170 kg/N specificerar kommissionen olika krav såsom odlingsföljder där grödor med stort kvävebehov ingår och förbjuder baljväxter från växtföljden. Jordbruksverket får meddela närmare föreskrif-

[104] Regeringskansliet, 'Sveriges rapportering enligt artikel 10 i rådets direktiv 91/676/EEG om skydd mot att vatten förorenas av nitrater från jordbruket' (2016).
[105] ibid.
[106] ibid.
[107] ibid.
[108] C-237/12, Commission v France [2014] p. 29; C-322/00, Commission v Netherlands (n 74) p. 166.
[109] Situationen förändras i vissa avseenden efter beslutet om vattenmyndigheternas åtgärdsprogram men åtgärderna finns fortfarande kvar, se Miljö- och energidepartementet, Prövning åtgärdsprogram (n 30).

ter om hur odlingen ska lägga upp och specificerat vilka grödor som får användas enligt 12:10 § MB (se 29–34 § nitratföreskrifterna), men någon ytterligare specificering av växtföljd i nitratkänsliga områden diskuteras inte i översynen av åtgärdsprogrammen. Med tanke på att förändringar i hur grödor brukas har inverkan på belastningen från jordbruket vore en diskussion om växtföljd och hur grödorna brukas rimlig.[110] Det verkar därför som om det svenska genomförandet av nitratdirektivet haltar när det kommer till utformningen av åtgärdsprogrammen med genomförandeunderskott både avseende införandet av bilaga 3-åtgärder och ytterligare åtgärder för att uppnå både nitratdirektivets och vattendirektivets mål, vilket är ett krav enligt art. 10 vattendirektivet.

Det svenska genomförandet av nitratdirektivet når på så sätt inte upp till gemenskapsrättens krav på samordning, vilket medför en risk att art. 4-målen äventyras och rimligen borde regleringen i 12:10 § MB och jordbruksverkets föreskrifter ses över i enlighet med art. 11(3)(h). Samtidigt är nitratdirektivets regleringskonstruktioner begränsande och för att uppnå art. 4-målen kommer det sannolikt behövas andra regleringar med utgångspunkt i art. 11(3)(h).[111]

7.4 Slutsatser svensk rätt

De generella föreskrifter som följer av avloppsdirektivet och nitratdirektivet är en del av regleringen som omfattas av art. 11(3)(a)(g)(h) och utgör, tillsammans med den individuella prövningen, de viktigaste regleringarna emot diffusa utsläpp från jordbruket och punktutsläpp från reningsverk. I och med att Naturvårdsverkets och Jordbruksverkets föreskrifter i huvudsak avser att förverkliga avloppsdirektivets och nitratdirektivets målsättningar och inte vattendirektivets mål indikerar detta på en bristande nationell koordinering, vilket kan leda till att vattendirektivets mål äventyras. Sverige lever på så sätt inte upp till kraven som återfinns i art. 11(3)(a)(g)(h) eller EU-domstolens praxis i och med att det saknas en helhetsplan som på ett övergripande och sammanhängande sätt syftar till att uppnå vattendirektivets målsättningar.

8. Avslutande kommentarer

Art. 11(3)(a) och art. 10, tillsammans med uppdateringskravet i art. 11(3)(g)(h), lägger en grund för att samordna de delar av gemenskapsrätten för vatten som reglerar utsläppen från punktkällor och diffusa källor. I och med att Naturvårdsverkets och Jordbruksverkets generella föreskrifter är en del av regleringen som bidrar till att vattendirektivets mål inte äventyras, och på sikt uppnås, sträcker sig vattendirektivet in över dessa regleringar och kräver att de ses över och uppdateras om det behövs för ett uppnående av art. 4-målen, vilket inbegriper en översyn av bemyndigandena till Jordbruksverket och Naturvårdsverket

Att den tidigare gemensamhetslagstiftningen är syftesavgränsad och inte kan tillämpas för att angripa miljöproblem som ligger utanför deras syfte innebär inte att den motsvarande nationella regleringen på samma sätt ska vara statisk om den inte klarar av att genomföra också vattendirektivets mål. Alternativt behövs det utfyllande nationella regleringar som bygger vidare på den tidigare gemenskapsrätten. Men generellt finns det möjligheter att uppdatera de generella föreskrifterna som trätt i kraft till följd av den tidigare gemensamhetsrätten och knyta dessa åtgärder emot målen för vattendirektivet, utan att för den delen överge målen för den tidigare gemenskapslagsrätten.

Även om de öppningar mot gemenskaps-

[110] SMED, 'Beräkning av kväve- och fosforbelastning på havet år 2011 för uppföljning av miljökvalitetsmålet "Ingen övergödning" Nr 154.
[111] Tegner Anker (n 28).

rätten som finns i avloppsdirektivet inte finns för nitratdirektivet är det ett minimidirektiv och det finns inget som hindrar att en medlemsstat t.ex. bygger ut regleringen med fosforsnormer.[112] En koordination mellan nitratdirektivets och vattendirektivets målsättningar och åtgärdsprogram borde i större utsträckning genomföras för att se över jordbrukets bidrag till eutrofieringen som helhet. Dessvärre är nuvarande Regering ett hinder i genomförandet av vattendirektivet i och med sitt beslut att avgränsa vattenmyndigheternas åtgärdsprogrammens för jordbrukssektorn till att endast avse frivilliga åtgärder, vilket för med sig att en koordination mellan direktiven synes osannolik i dagsläget.[113] Det är tydligt utifrån art. 10 och art. 11(3)(h) och de svenska förarbetena att diffusa källors utsläpp kräver en mångfacetterad reglering men med reglering avses bindande regler som kan kompletteras men aldrig ersättas av frivilliga åtgärder (precis som nitratdirektivet är tänkt att fungera). Om uppdateringskravet inte efterlevs och inga utfyllande regleringar införs för jordbrukssektorn medför det att en av vattendirektivets grundläggande åtgärder inte genomförs. Hur ska man rättsligt se på grundläggande åtgärder som inte genomförs? Det går att tillämpa EU-domstolens konstruktion ’äventyra’ på det nationella genomförandet och om grundläggande åtgärder inte genomförs och det leder till att vattendirektivets art. 4-mål äventyras är det inte orimligt att det medför att medlemsstaten bryter med sina förpliktelser enligt gemenskapsrätten. Kravet om uppdatering som återfinns på flertalet platser i vattendirektivets art. 11(3) spelar på så sätt en viktig roll i samordningen av unionens vattenlagstiftning. Uppdateringskravet tillsammans med art. 10 för med sig krav på medlemsstaterna att koordinera och skapar samordning inom EU:s vattenlagstiftning, för att på så sätt uppnå gemenskapsrättens mål inom yt- och grundvattenområdet. Det går därför att hävda att art. 11(3)(a) och art. 10 tillsammans med uppdateringskravet i art. 11(3)(g)(h) innehåller ett antal krav som lägger grunden för att skapa ett samordnat regelverk inom vattenrättsområdet avseende utsläpp till ytvatten från punktkällor och diffusa källor, där bland annat reningsverk och jordbruksverksamhet ingår. Om samordning inte eftersträvas av medlemsstaterna, såsom i Sverige, är risken stor att art. 4-målen äventyras och risken är som störst i regleringarnas mellanrum och det är därför som målet om ett samordnat vattenrättsligt regelverk är så viktigt.

[112] Något Jordbruksverket till viss del påbörjat i och med 8 § nitratföreskrifterna.

[113] Se Miljö- och energidepartementet, Beslut om prövning av vattenmyndigheternas förslag till åtgärdsprogram för 2015–2021.

Saving the Common Hamster from Extinction with the EU Habitats Directive: A Mandatory Recovery Effort, A Remediation of Past Non-Compliance or An Exercise in Futility?

Hendrik Schoukens

"Hope has two beautiful daughters: their names are anger and courage.
Anger that things are the way they are. Courage to make them the way they ought to be."
Saint Augustine (354–430)

Abstract

In spite of having been a strict protected species under the framework of the EU Habitats Directive for more than twenty years, the populations of Common hamster continue to plummet throughout Western-Europe. This is mainly the result of the intensification of agricultural practices and the increasing fragmentation of the remaining populations through urbanization. The present analysis reveals that the Habitats Directive is not merely concerned with maintaining the status quo but also requires EU Member States to restore the populations and habitat of strictly protected species to a favourable conservation status. This is especially the case when the ongoing decline of a species is partly the result of previous non-compliance by EU Member States with the strict protection rules that are included in Articles 12–16 of the Habitats Directive. The plight of the Common hamster, which is listed as a protected species on Annex IV of the Habitats Directive, represents an apt test case to assess the viability of the restoration credentials upon which the Habitats Directive is grounded. Through a thorough case-study of the recently adopted Flemish hamster protection program it is revealed that the concrete implementation of the restoration imperative underlying the Habitats Directive can give rise to certain ambiguities. However, it is submitted that Member States are principally obliged to bring back the populations of endangered species listed on Annex IV of the Habitats Directive to resilient levels, encompassing several thousand individuals. If need be, science-based reintroduction actions and habitat restoration measures are to be part of such comprehensive recovery policies. Also, conservation programs should not exclusively rely on voluntary measures, even when more collaborative approaches might be crucial for bolstering support amongst stakeholders. While on the surface the newly adopted Flemish hamster protection program appears to be a topnotch example of the recently emerged recovery rationale, its modest population targets and reluctant time-scale render it vulnerable legally speaking. If not quickly implemented, the last remaining Common hamsters in the Flemish Region will have disappeared well before the program takes full effect.

1. General introduction

When talking about species protection law, most people have the tendency to think of charismatic species, such as the Brown bear (*Ursus arctos*) or the Gray wolf (*Canis lupus*). However, within the European Union (EU), the unenviable fate of a little rodent species, the European or Common

hamster (*Cricetus cricetus*), has attracted relatively much attention amongst environmental lawyers and policy makers. While certainly not being the most emblematic species, the Common hamster has been at the center of, often vicious, judicial and policy debates surrounding the application and effectiveness of European species protection law over the past two decades. In the Netherlands, some elusive Common hamsters became the nemesis of several project developers and authorities since their presence appeared to be able to, at least temporarily, block project developments at the turn of the 21st century.[1] In Germany also, numerous infrastructure and private projects had to be revised or, in some instances, rejected as a result of the presence of Common hamsters.[2] On June 9, 2011, the plight of the Common hamster even made international headlines when France was condemned by the Court of Justice of the EU (CJEU) for its apparent failure to halt the dramatic decline of the species in the French Alsace.[3]

The many controversies surrounding the Common hamster in Western Europe might be hard to grasp for the reader which is not familiar with its current predicament. Across its global range, the Common hamster is still considered of least concern according to the IUCN Red List.[4] However, in many individual European countries, such as France, Germany, the Netherlands and Belgium, Common hamsters are now considered critically endangered and most local populations are on the threshold of extinction.[5] The intensification of agricultural practices, most notably the recent shift to maize cultivation by many farmers, is generally pinpointed as one of the chief culprits for the massive population reductions.[6] As a desperate move to halt the ongoing losses, the Common hamster was listed as a strictly protected species (Appendix II) under the 1979 Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention).[7] In 1992, the Common hamster was included in Annex IV to the Habitats Directive[8], implementing the strict protection schemes set out by the Bern Convention at EU level.

The stringent protection rules have yielded few results so far. While it is certainly true that, generally speaking, static preservation efforts have proven effective and necessary to stem the

[1] See more extensively: *J.M. Verschuuren*, De laatste wilde hamster in Nederland en de grondslagen van het Europees en international recht, W.E.J. Tjeenk Willink, 2000, Deventer, pp. 20–25. See also: *H. Schoukens & K. Bastmeijer*, Species protection in the European Union: How strict is strict? In: *C.H. Born, A. Cliquet, H. Schoukens, D. Misonne & G. Van Hoorick* (eds.), The Habitats Directive in its EU Environmental Law Context: European Nature's Best Hope?, 2015, Routledge, pp. 121–124.

[2] *F.V. Eppink & F. Wätzold*, Shedding light on the hidden costs of the Habitats Directive: the case of hamster conservation in Germany, Biodiversity and Conservation, 2008, 18(4), pp. 801–802.

[3] *S. Erlanger*, Ruling favors 10-inch citizen of France, NY Times, 9 June 2011, http://www.nytimes.com/2011/06/10/world/europe/10hamsters.html (Accessed 10 February 2017). See: Case C-383/09, Commission v France [2011] ECR I-04869. See also: *M. Clement*, What does the obligation of result mean in practice? The European hamster in Alsace, in *C.H. Born et al.*, *supra* note 1, pp. 9–20.

[4] According to the IUCN Red List Assessment, the Common hamster has substantially declined in almost all European range states (with the exception of Russia and Ukraine). See: http://www.iucnredlist.org/details/5529/0 (Accessed 10 February 2017).

[5] *K. Neuman et al.*, Multiple bottlenecks in threatened western European populations of the common hamster Cricetus cricetus (L.), Conservation Genetics, 2004, 5, pp. 181–193.

[6] See amongst others: *J.O' Brien*, Saving the common hamster (Cricetus cricetus) from extinction in Alsace (France): potential flagship species conservation or an exercise in futility?, Hystrix, the Italian Journal of Mammalogy, 2015, 26, pp. 89–90.

[7] Bern, 19 September 1979, in force 1 June 1982, UKTS No 56 (1982), Cmnd 8738. The Common hamster was listed in Appendix II to the Bern Convention.

[8] Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora [1992] OJ L 206, p. 7 (further referred to as 'Habitats Directive').

ongoing population losses[9], they do no longer suffice for the Common hamster. In Western Europe, local populations of Common hamsters have crashed.[10] On the surface, the demise of the Common hamster could serve as yet another stark example of the inherent ineffectiveness of international and EU nature protection rules[11], at least when not adequately enforced and applied in the field.[12] It is indeed a well-known fact that, in spite of remarkable success stories, such as the recovery of large carnivores across their former range[13], the overall picture for the protected biodiversity in the EU remains bleak and worrisome.[14] The predicament of the hamster is thus not to be regarded as an anomaly. In fact, the populations of many other common species that used to be abundant in the countryside, such as farmland birds, have also experienced a worrisome drop over the past decades.[15]

In recent years, though, the emergence of popularized new concepts such as 'ecological restoration'[16] has prompted public authorities to return degraded ecosystems and the associated species to their historical trajectory.[17] Hitherto, existing nature conservation laws, such as the EU Nature Directives, were often implemented and applied with a focus on conservation rather than restoration.[18] Yet in light of the current shift towards recovery, some authors now speak of an 'emerging age of ecological restoration law'.[19] Over the past decades, ecological restoration has indeed slowly turned into a global environmental priority.[20] With progressive restoration policy targets present in both global and regional biodiversity targets[21], national and regional authorities are now urged to further operationalize the shift towards more comprehensive recovery policy. Under the umbrella of the 1992 Convention on Biological Diversity[22], the 2010 Aichi Targets set forth the goal of restoring at least 15% of degraded ecosystems by 2020.[23] Furthermore, the European Commission has explicitly included ecological restoration in the explicit policy targets that are included in the EU Biodiversity

[9] See for instance: *C. L. Gray et al.*, Local biodiversity is higher inside than outside terrestrial protected areas worldwide, Nature Communications, 2016, DOI:10.1038/recomms12306.

[10] See more on this: *M.L. Shaffer*, Minimum viable populations for species conservation, Bioscience, 1981, 31, pp. 131–134.

[11] *J.V. López-Bao et al.*, Toothless Wildlife Protection Laws, Biodiversity and Conservation, 2015, 2105.

[12] See also: *S. Leemans*, Preventing paper parks: How to make the EU Nature Laws work, WWF UK, 2017, http://www.wwf.eu/?291910/Preventing-Paper-Parks-How-to-make-the-EU-nature-laws-work (Accessed 10 February 2017).

[13] *G. Chapron et al.*, Recovery of Large Carnivores in Europe's Modern Human-Dominated Landscapes, Science, 2014, 346, p. 1517.

[14] *European Environment Agency*, State of nature in the EU Results from reporting under the nature directives 2007–2012, EEA Technical Report, No. 2/2015.

[15] See amongst others: *A. Gamero et al.*, Tracking Progress Towards EU Biodiversity Strategy Targets: EU Policy Effects in Preserving its Common Farmland Birds, Conservation Letters, 2016, DOI: 10.1111/conl.12292.

[16] See more extensively: *J. Aronson & S. Alexander*, Ecosystem Restoration is Now a Global Priority: Time to Roll up our Sleeves', Restoration Ecology, 2013, pp. 293–296. See also: *A. Telesetsky, A. Cliquet & A. Akhtar-Khavari*, Ecological Restoration in International Environmental Law, 2017, Routledge, pp. 22–25.

[17] *S. K. Allisson*, What do we mean when we talk about ecological restoration? An inquiry into values, Ecological Restoration, 2004, 22(4), pp. 281–286.

[18] See with respect to the EU Nature Directives: *A. Cliquet, C. Backes, J. Harris & P. Howsam*, Adaptation to Climate Change. Legal Challenges for Protected Areas, Utrecht Law Review, 2009, 5, p. 158.

[19] *B.J. Richardson*, The Emerging Age of Ecological Restoration Law, Review of European Community and International Environmental Law, 2016, 25, p. 277.

[20] *Aroson & Alexander*, *supra* note 16.

[21] See more extensively: *A Cliquet, K. Decleer & H. Schoukens*, Restoring nature in the EU: The only way is up? in C.H. Born et al. *supra* note 2, pp. 265–284.

[22] Convention on Biological Diversity, Rio de Janeiro, 5 June 1992.

[23] CBD, 2010, COP 10 Decision X/2, Strategic Plan for Biodiversity 2011–2020.

Strategy to 2020.[24] In line with its international obligations, the European Commission has adopted an overarching 15% restoration target.[25] Even so, putting these restoration commitments in practice turned out to be more complex than anticipated.

The absence of precise definitions of key concepts, such as the notions of 'degradation' and 'ecological restoration', renders it conspicuously difficult to measure the progress made towards the progressive recovery goals.[26] The recent challenges surrounding the survival of the Common hamster in Western Europe provide for a useful case-study in this respect, since both effective protection schemes and progressive introduction and habitat restoration efforts come into the picture. Increasingly, human efforts to reintroduce an endangered species to their historical range or to reinforce the genetic viability of a species population are considered crucial to stave off extinctions.[27] The declining trends of the few remaning hamster populations forced several governments to adopt ambitious conservation plans, including far-reaching measures such as captive breeding/restocking actions as the ultimate strategy to prevent imminent extinction. This was for instance the case in the Flemish Region (Belgium), where the Flemish government enacted a tailor-made Species Protection Program for the Common hamster in December 2015.[28]

To this date, however, many of these conservation efforts have failed to reverse the ongoing decline of the Common hamster. While the reasons for this failure are manifold, it is interesting to examine what specific legal-ecological standards are to be observed when further developing and implementing restoration strategies for endangered species. Some might contend that EU Member States such as Belgium (Flemish Region), where the Common hamster is virtually extinct, should be allowed to consider the recovery of the species a lost cause and prioritize the conservation of other threatened species. Why wasting valuable funds on compensation payments to farmers, for instance, when other endangered species of a potentially greater ecological importance might offer more realistic chances of conservation success? Others might argue that EU Member States have a legal obligation to avoid extinction of species that are strictly protected under EU nature conservation law.

This article aims to delve deeper into the legal restoration principles upon which EU nature conservation law is based, as applied vis-à-vis the predicament of the Common hamster. While the specific focus is on the plight the Common hamster in the Flemish Region, general lessons, which might also be instructive for national or regional recovery strategies for other EU protected species, are to be drawn from this case study. In

[24] European Commission, *Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions, Our life insurance, our natural capital: an EU biodiversity strategy to 2020* (COM(2011) 244 final, 2011).

[25] See more extensively: *Cliquet, Decleer & Schoukens*, *supra* note 21, pp. 268–271.

[26] *D. Jørgensen*, Ecological restoration as objective, target, and tool in international biodiversity policy, Ecology and Society, 2016, 20(4), p. 43.

[27] *Richardson*, *supra* note 18. See on the necessity of reintroduction efforts for saving endangered species: *P.J. Seddon*, From reintroduction to assisted colonization: moving along the conservation translocation spectrum, Restoration Ecology, 2010, 18(6), pp. 796–802. See also: *IUCN/Species Survival Commission (SSC)*, Guidelines for reintroduction and other conservation translocations: version 1.0, IUCN/SSC, 2013.

[28] Decision of the Flemish Government of 21 December 2015 on the approval of the species action program for the Common hamster, Belgian Official Gazette 20 January 2016. The species protection program, which was drafted by the Flemish government, is included as an Annex to the decision. See: *Flemish Government*, Soortenbeschermingsprogramma voor de Europese hamster in Vlaanderen 2015–2020 (further referred to as 'Flemish hamster protection program', https://www.natuurenbos.be/SBPhamster (Accessed 10 February 2017).

a *first section*, both the protection and recovery duties under international and EU law for the Common hamster are examined in view of recent jurisprudential evolution before the CJEU. In a *second section*, the recent Flemish conservation efforts, and in particular the recently promulgated Flemish hamster protection program, are examined as a specific case study. The adequacy thereof is assessed against the benchmark of the Habitats Directive. In this context the following general research questions are looked into: (1) what is the exact material scope of the passive protection rules included in Article 12(1) of the Habitats Directive and can they be construed so as to include a positive obligation to foster the recovery of threatened species?; (2) what baseline has to be taken into account when establishing explicit population targets for Annex IV species?; (3) what types of recovery measures are to be considered by EU Member States when protecting endangered species?; and (4) to what extent can economic and social considerations limit the ambition level when adopting recovery plans?

2. The predicament of the 'Flemish dodo': a downward spiral towards extinction?

The Common hamster is native to a large area in Eurasia, extending from Belgium to Central Russia. Its main centre lies in the eastern steppic areas. For a considerable time, the species was regarded as an agricultural pest in Western Europe and nothing pointed towards its possible extinction over large tracts of its former range.[29] Within this westernmost part of the Common hamster's range, however, only a few isolated relict populations manage to survive, merely covering a minor part of its historic range.[30] More resilient hamster populations can be found in eastern Germany, the Czech Republic, Slovakia and Hungary.[31]

2.1 From agricultural pest to virtually extinct in just a few decades

Being a nocturnal or crepuscular species, the Common hamster is a solitary animal living in a complex burrow system, and eats seeds, legumes, root vegetables, grasses and insects.[32] Its habitat requirements confine its presence to loess and soft loam soils, which explains the fact that the species is seldom found close to coastal areas or in mountain chains.[33] Originally, the species' habitat consisted mainly of fertile lowland steppic grassland. However, since most of this habitat type in Central and Western Europe has been converted to agricultural land over the past two millennia or so, the Common hamster is now mostly found on agricultural fields and thus its presence is almost exclusively linked to human farming practices.[34] Today, the optimal habitat conditions of the Common hamster in countries such as Germany, Belgium, France and the Netherlands almost exclusively overlap with the most productive agricultural areas.[35] Whereas hamster

[29] *O' Brien*, *supra* note 6, pp. 89–91.

[30] *M.J.J. La Haye, K. Neumann & H.P. Koelewijn*, Strong decline of gene diversity in local populations of the highly endangered Common hamster (Cricetus cricetus) in the western part of its European range, Conserv Genet, 2012, 13, pp. 311–313.

[31] *O' Brien*, *supra* note 6, p. 90. See also: *Standing Committee (Bern Convention)*, Draft European Action Plan for the conservation of the Common hamster (*Cricetus cricetus*, L. 1758), 15 September 2008, Document T-PVS/Inf (2008), pp. 21–22.

[32] *European Commission*, Cricetus Cricetus – Factsheet, http://ec.europa.eu/environment/nature/natura2000/management/docs/Cricetus%20cricetus%20factsheet%20-%20SWIFI.pdf (Accessed 10 February 2017).

[33] *O' Brien*, *supra* note 6, pp. 89–90.

[34] It must be noted though that Common hamsters can be found within urban areas, such as in the city of Vienna, in Austria. See more on this topic: https://www.wien.gv.at/umweltschutz/naturschutz/biotop/feldhamster.html (Accessed 10 February 2017). In Ukraine, the presence of the Common hamsters in urban zones has been documented as well.

[35] *O' Brien*, *supra* note 6, pp. 89–90.

can occur in most annual crops, they do tend to prefer cereals and lucerne (alfalfa). Over the past decades, changes in agricultural practices have resulted in the reduction of the hamster's populations by more than 90% in Belgium, the Netherlands and the adjacent German federal state of North Rhine-Westphalia.[36] The nearby populations present in the *Alsace*-region in France have also been decimated.[37] For instance, it was recorded in France that the number of documented hamster burrows had decreased from 1 167 in 2001 to between 161 and 174 in 2007.[38]

The remaining populations of Common hamsters that are still present within the Flemish Region are to be distinguished from the populations in the Alsace. The former used to be connected with the populations in the nearby areas in the Netherlands (Province of Limburg) and the adjacent German federal state of North Rhine-Westphalia.[39] These subpopulations have all experienced substantial losses over the past decades.[40] This is strikingly illustrated by the situation in Belgium. Some forty years ago, the species still thrived throughout the extensive swaths of the provinces of *Brabant*, *Luik* and *Limburg*. By the end of the 1990s, the populations of the Common hamster were reduced to four isolated subpopulations.

A decade later, the populations in *Voeren* (*Limburg*) and *Hoegaarden* (*Vlaams-Brabant*) had vanished, with the remaining populations in the two remaining strongholds finding themselves on the verge of a total collapse. In 2012, it was estimated that a mere 30 to 50 Common hamsters were present within the Flemish Region, more specifically in *Wildooie-Tongeren* (*Limburg*). One Flemish environmental NGO even suggested that the last Common hamster had already gone extinct by then.[41]

2.2 The heavy toll of intensive agriculture, creeping urbanisation and climate change

Many scientists assume that the sharp decline in the populations of remaining hamsters in the westernmost parts of its range has sped up because its populations have dropped below the generally accepted 'genetically effective population size'.[42] The change in agricultural crops since the 1950s has significantly reduced the survival chances of the Common hamster. In particular, the recent shift towards maize cultivation at the expense of more hamster-friendly crops has been particularly detrimental to the medium-sized rodent species.[43] Recent research confirms that the presence of hamsters decreases as the presence

[36] *La Haye, Neuman & Koelewijn*, *supra* note 30, p. 311. See more extensively: *L. Kuiters, M. La Haye, G. Müskens & R. Van Kats*, Perspectieven voor een duurzame bescherming van de hamster in Nederland, Rapport 2022, Alterra, Wageningen, The Netherlands.

[37] *O' Brien*, *supra* note 6, pp. 90–91.

[38] See also: *M.L. Tissier, Y. Handrich, J.-P. Robin, M. Weitten, P. Pevet, C. Kourkgy & C. Habold*, How maize monoculture and increasing winter rainfall have brought the hibernating European hamster to the verge of extinction, Sci Rep., 2016, 6, p. 25531.

[39] Some scientists have argued that the Common hamsters from these populations are to be considered an individual subspecies *Cricetus cricetus canescens*, which is distinct from the *Cricetus cricetus cricetus* present in central and Eastern Europe. Recent molecular evidence does not seem to support the thesis. See more extensively: *K. Neumann, H. Jansman, A. Kayser, S. Maak & R. Gattermann*, Mutiple bottlenecks in threatened western European populations of the European hamster Cricetus cricetus (L.), Conservation Genetics, 2004, 5, p. 182; *I. Grulich*, Variability of Cricetus cricetus in Europe, Act. Sc. Nat. Brno, 1987, 21, pp. 1–53.

[40] *La Haye, Neuman & Koelewijn*, *supra* note 30, pp. 311–312.

[41] See: https://www.natuurpunt.be/nieuws/was-dit-de-laatste-wilde-vlaamse-hamster-20120817 (Accessed 10 February 2017).

[42] See: *M. La Haye, V. Verbist & H.P. Koelewijn*, Behoud van Vlaamse en Nederlandse hamsters: Genetisch herstel en akkerbeheer gaan hand in hand, Natuur.focus, 2010, pp. 159–160.

[43] *K. Ulbrich & A. Kayser*, A risk analysis for the Common hamster (Cricetus cricetus), Biological Conservation, 2004, 117(3), pp. 263–270.

of maize increases, in France as well as in Germany and the Netherlands.[44] In these countries, perennial fodder crops now constitute less than 6 % of the arable land, compared with 13–14 % in the early 1990s.[45] The adverse effects linked to the arrival of maize were further worsened by the simplification of rotations and the increasing popularity of improved machinery. Modern, intensive agriculture provides less vegetation cover for hamsters, which is vital to allow the species to eat and hide from predators.[46]

In addition, creeping urbanization and the fragmentation of the traditional habitats of the Common hamster have further compromised the survival chances of the remaining hamster populations. The growing fragmentation in densely populated countries and regions such as the Flemish Region and the Netherlands has exacerbated the ongoing decline of the increasingly rare rodent species, particularly in the westernmost part of its range. Consequently, the remaining populations have become less resilient and increasingly vulnerable to additional threats such as inbreeding and genetic loss.[47] Recent research even suggested that climate change might be an additional phenomenon negatively affecting the remaining hamster populations.[48]

3. Law in books: moving from protection to recovery within the framework of the Habitats Directive?

Before addressing the effectiveness of the recent recovery efforts undertaken in the Flemish Region to halt the decline of the Common hamster, a further understanding of the applicable EU legal standards as to species protection is necessary. For it is precisely the strict protection system, which is often referred to as the 'second pillar' of the Habitats Directive, that serves as an appropriate yardstick to assess the implementation efforts of the EU Member States which still host declining hamster populations. These rules are to be distinguished from the relatively well-known 'first pillar' of the Habitats Directive, which aims to conserve and restore natural habitats and the habitats of species through the establishment of the Natura 2000 Network.[49] In recent years, the comprehensive set of rules contained in Articles 12–16 of the Habitats Directive has become increasingly relevant when reviewing a EU Member State's adherence to its conservation duties concerning endangered species. This coincided with seminal jurisprudential developments before the CJEU, which highlighted the legal teeth of the protection duties, and the publication of the non-binding Guidance on Strict Species Protection by the European Commission in 2007.[50]

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[44] *Tissier et al.*, *supra* note 38.

[45] *Orbicon, Ecosphère, ATECMA & Ecosystems LTD*, Species report Cricetus cricetus, Wildlife and sustainable farming and the Birds and Habitats Directive 2009, Brussels, Wildlife and Sustainable Farming Initiative.

[46] For instance, in the Netherlands, hamster populations suffered from important decline caused by increased predation rates. See: *M. La Haye, T.E. Reiners, R. Raedts, V. Verbist & H.P. Koelewijn*, Genetic monitoring to evaluate reintroduction attempts of a highly endangered species, Conservation Genetics, 2017, DOI 10.1007/s10592-017-0940-z.

[47] *La Haye, Neuman & Koelewijn*, *supra* note 30, pp. 310–313. In some literature, however, the presupposition that intensive agriculture is the main cause of the demise of the Common hamster is questioned: *S. Monecke,* All things considered? Alternative reasons for hamster extinction, Zool. Pol., 2013, 58, pp. 41–57.

[48] *Tissier et al.*, *supra* note 38.

[49] For a recent overview of the protection and conservation duties enshrined in Article 6 of the Habitats Directive, see: *N. De Sadeleer*, Assessment and authorisation of plan and projects having a significant impact on Natura 2000 sites in *B. Vanheusden & L. Squitani* (eds.), EU environmental and planning law Aspects of large-scale projects, 2015, pp. 281–320.

[50] This Guidance document has to be seen as support for the EU Member States on how to fulfil their obligations with regard to the implementation of the Habitats' Directive. *European Commission*, Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC (further referred to as 'Guidance on Strict Species Protection'), 2007, http://ec.europa.eu/environment/nature/conserva-

3.1 The fundamentals underpinning Articles 12–16 of the Habitats Directive

For strictly protected species such as the Common hamster, the EU Member States are primarily obliged to implement and observe the protection duties contained in Article 12(1) of the Habitats Directive. Under the latter provision, which also serves to implement the protection duties set out by Article 6 of the Bern Convention within the EU, EU Member States must take the requisite preventative measures to establish a system of strict protection for the animal species listed in Annex IV(a) in their natural range, prohibiting deliberate disturbance of these species, particularly during the period of breeding, rearing, hibernation and migration, and any deterioration or destruction of breeding sites or resting places.[51] While the exact application of these protection rules might appear distant from the context of recently established recovery programs, a clear understanding of the exact repercussions of this set of strict protection duties is key to fully grasp the extent of the recovery duties incumbent on the EU Member States with respect to protected species such as the Common hamster, and the seminal challenges associated therewith.

3.1.1 Strict implementation duties: the Common hamster as a common natural heritage for the entire EU?

Already in its first decisions on the protection duties included in Article 12(1) of the Habitats Directive, the CJEU underscored that threatened species form part of the European Union's natural heritage.[52] Therefore, the adoption of conservation measures for endangered species such as the Common hamster is to be considered a 'common responsibility' of all EU Member States.[53] EU Member States have thus a particular duty to ensure that their legislation intended to transpose that directive is clear and precise.[54] In contrast to the well-known provisions on area protection included in Article 6(2)-(4) of the Habitats Directive, the application of the strict rules on species protection does not hinge upon the subsequent designation of protected areas, such as Natura 2000 sites.[55] The protection duties directly apply throughout the territory of a EU Member State and are thus not solely limited to protected sites. The necessity of establishing a system of direct protection was further motivated by the finding that species with flexible habitat requirements, such as the Common hamster, were less suitable for traditional area protection measures.

Furthermore, it needs to be noted that the CJEU, when reviewing the implementation efforts of EU Member States, does not limit itself to checking whether the national or regional rules ensure a full, clear and precise transposition of Article 12(1) of the Habitats Directive. This so-called 'second level of enforcement' was strikingly illustrated by the CJEU's 2002 decision in the *Carretta Carretta* case.[56] In these infringement proceedings, Greece was not only condemned for not having established the necessary legal framework for the protection of sea turtles but

tion/species/guidance/pdf/guidance_en.pdf (Accessed 10 February 2017).

[51] For more guidance on the practical repercussions of these protection requirements, see: Guidance on Strict Species Protection, *supra* note 50, pp. 35–49. See also: *C. George QC & D. Graham*, After Morge, where are we now? In: G. Jones QC (ed.), The Habitats Directive – A Developer's Obstacle Course, 2012, pp. 46–53.

[52] See for instance: Case C-6/04, Commission v UK [2005] ECR I-09017, para. 25. See more extensively: *Schoukens & Bastmeijer*, *supra* note 1, pp. 131–134.

[53] Ibid.

[54] Case C-98/03, Commission v Germany [2006] ECR I-00053, paras. 59 and 60.

[55] See Article 4(5) of the Habitats Directive. See for a recent application of Article 6(2) in a context of species protection: Case C-504/14, Commission v Greece [2016] ECLI:EU:C:2016:847, para. 158.

[56] Case C-103/00, Commission v Greece [2002] ECR I-01147.

also for not having taken any concrete, effective measures in order to protect the beaches from disturbing recreational activities and illegal damaging constructions.[57] In the past years, Ireland was also convicted for not having sufficiently protected several Annex IV bat species[58], while both Cyprus[59] and (once again) Greece[60] were condemned for not having provided sufficient protection measures for several endangered snake species.

Most importantly, however, is the 2011 landmark-ruling of the CJEU, in which France was held for not having implemented sufficient protection measures to preserve the Common hamster in the Alsace region.[61] Here, the CJEU did not explicitly hold that Article 12(1) of the Habitats Directive is to be interpreted as an 'obligation of result'. Still, the strict scrutiny with which it assesses the French protection efforts suggests that it clearly goes beyond what is traditionally viewed as a best-efforts clause.[62] It is moreover interesting to note that the CJEU checked the French conservation efforts, among other things, in view of the undisputed population declines that had been recorded between 2001 and 2007.

3.1.2 The disturbance prohibition: outlawing detrimental agricultural practices?

Evidently, strict protection duties can indirectly lead to better survival chances for species such as the Common hamster, since they force EU Member States to ban the most detrimental farmland practices in areas where the species is still present. For a considerable time, though, the exact spatial repercussions of the strict species protection scheme remained unclear. On the surface, this might help to explain the further decline of a strictly protected species such as the Common hamster, especially when considered together with the relatively inadequate implementation and poor enforcement of the Habitats Directive in many EU Member States throughout the 1990s.[63]

The wording of the protection duties contained in Article 12(1) of the Habitats Directive is relatively straightforward in itself. In fact, the protection duties aim to outlaw any type of activity that has a negative impact on protected species. This was first illustrated by the abovementioned *Caretta caretta* case, where the CJEU explicitly came to the conclusion that the use of mopeds on the sand beach and the presence of pedalos and small boats in the water, in clear defiance of the applicable protection measures, clearly constituted a 'deliberate disturbance' of the sea turtles during the breeding period for the purposes of Article 12(1)(b) of the Habitats Directive.[64] In a subsequent ruling concerning the potentially detrimental Spanish hunting practices, the CJEU again opted for a rather liberal understanding of the latter notion.[65] Following this case-law, it had become clear that land use

[57] Ibid, para. 40.

[58] Case C-183/05, Commission v Ireland [2007] ECR I-137.

[59] Case C-340/10, Commission v Cyprus [2012] ECLI: EU:C:2012:143, para. 61.

[60] Commission v Greece [2006] ECR I-42.

[61] Commission v France, *supra* note 3.

[62] The mere fact that the CJEU recently seemed to align infringements of Article 6(2) of the Habitats Directive, which is viewed as an obligation of results, with violations of Article 12(1) of the Habitats Directive, seems to point in that direction. See, for instance: Commission v Greece 2016, *supra* note 55, para. 157–159.

[63] See for instance: *L. Krämer*, EU Environmental Law, Sweet and Maxwell, 2011, section 5.14. See also more recently: *L. Krämer*, Implementation and enforcement of the Habitats Directive, In: *C.H. Born et al.*, *supra* note 1, pp. 229–244.

[64] Commission v Greece, *supra* note 56, para. 36. For a more recent example of the relevance of Article 12(1) of the Habitats Directive in relation to land-use activities, recreational activities and permitted constructions: Commission v Greece, *supra* note 55.

[65] Case C-221/04, Commission v Spain [2006] ECR I-04515, para. 71. See also: Guidance on Strict Species Protection, *supra* note 50, p. 40.

restrictions might be in order to ensure an effective application of Article 12(1)(b) of the Habitats Directive.[66] In other words, the scope of the protection rules is not to be confined to a limited class of harmful activities. Any type of activty and/or operation that could interfere with strictly protected species might need to be subjected to further scrutiny.

The latter interpretation was subsequently endorsed by the European Commission in its 2007 Guidance on Strict Species Protection, in which it was specified that the system of strict protection is also applicable in the context of ongoing activities, such as intensive agriculture, which have not been made subject to a prior authorisation. As such, these findings are not unimportant for the context of the Common hamster. While the European Commission recognised that extensive agriculture could benefit certain farmland species such as the Common hamster, EU Member States are still required to take avoidance measures where shifts in ongoing land use are damaging for species.[67] And even if part of the decline of a species can be ascribed to measures supported by the EU's Common Agricultural Policy (CAP), this does not authorize a EU Member State to disregard its obligation to avoid further deterioration for endangered species.[68] To some extent, this rationale can also be distilled from the ruling of the CJEU in the French hamster case, since at no point the EU judges refrained from scrutinizing France's agri-environment measures in view of shifting agricultural practices.[69] In this respect, it is important that the definition of 'natural habitat' in the Habitats Directive covers both 'entirely natural' and 'semi-natural', which implies that even secondary, anthropogenic habitats have to be preserved and/or restored, if necessary, for the recovery of Annex IV species. *Ergo* it would be erroneous to justify a lack of comprehensive conservation measures for a species like the Common hamster by referring to the fact that the species is apparently no longer able to maintain itself in its farmland habitat.[70]

3.1.3 The deterioration prohibition: towards a wider protection of hamster burrows against destruction?

Whereas a restrictive understanding of the disturbance prohibition might still grant the EU Member States some leeway since its application requires the passing of a certain significance threshold and also entails that there was an intentional element, the prohibition on deterioration and destruction included in Article 12(1)(d) of the Habitats Directive leaves less room for compromise. In its 2006 decision on the German implementation schemes, the CJEU held that '(g)iven the importance of the objectives of protecting biodiversity which the Directive aims to achieve, it is by no means disproportionate that the prohibition laid down in Article 12(1)(d) of the Habitats Directive is not limited to deliberate acts'[71]. The relevance of the prohibition on deterioration and destruction of breeding sites or resting places in the context of hamster protection is further underscored by Advocate General Kokott in her Opinion in the French hamster case. In this context, she clarified that 'an unfavourable conservation status gives rise to more far-reaching obligations for the EU Member States (…) because the system of protection is intended to help to restore a favourable conservation status. The protection of breeding sites and resting places of

[66] *George QC & Graham*, *supra* note 51, p. 47.
[67] Guidance on Strict Species Protection, *supra* note 50, p. 31.
[68] See, by analogy: Case C-96/98, Commission v France [1999] ECR I-8531, par. 40.
[69] Commission v France, *supra* note 3, paras. 26–34.
[70] *Y. Epstein, J.V. Lopez-Bao & G. Chapron*, A Legal-Ecological Understanding of the Favorable Conservation Status for Species in Europe, Conservation Letters, 2015, 9, p. 84.
[71] Commission v Germany, *supra* note 54, para. 55.

a species with a very unfavourable conservation status (…) therefore requires a generous delimitation of territory in order to prevent the species from disappearing, and thus the functionality of the sites from being lost'[72]. Accordingly, EU Member States need to put forward a coherent and coordinated scheme of preventative measures in order to prevent actual damage to or the destruction of breeding sites or resting places[73], including the habitats surrounding the hamsters' burrows.[74] The destruction of such sites, either through agricultural practices or through construction works, is to be banned. By contrast, Advocate General Kokott posited that planning developments should not necessarily be prohibited in areas which are only potentially usable for Common hamsters.[75] In its ruling of 9 June 2011, however, the CJEU did not expressly shed light on the territorial scope of the protection duties.

Even so, it should be noted that according to the applicable French planning rules in the 'repopulation areas' in the French Alsace, any urbanisation project of a hectare or more had to prove the absence of any harmful effect on that species by a specific study and, if no such evidence was provided, could be carried out only provided a ministerial exemption was obtained. The latter understanding appears to be implicitly endorsed by the EU judges' reasoning. Amongst others, the CJEU underlined that EU Member States cannot exempt small-scale spatial interventions in these repopulation areas from a prior assessment as to their potential impacts on the Common hamster, as had been the case in France.[76] Otherwise, endangered species might easily fall victim to a 'death by a thousand-cuts' phenomenon, where incremental losses, if left unaddressed, are able to jeopardize the very survival of a species.

When considered together with the above-treated case-law evolutions[77], the wide scope of the deterioration prohibition seems to imply that conservation measures are to be proactively integrated into spatial planning procedures. It can be put forward that this could, in some instances, require EU Member States to take into account future repopulation zones for endangered species in their planning efforts. Likewise, no planning permits are to be granted for spatial projects in areas still occupied by protected species, unless sufficient information is available which indicates that no adverse effects are expected or, as the case may be, a derogation through Article 16(1) of the Habitats Directive has been obtained prior to the activities. This interpretation finds further support in Article 3(2) of the Bern Convention, which stipulates that Contracting Parties need to take into account the conservation of wild flora and fauna in their planning and development policies.[78]

On a more general level, the recent case-law developments prompt EU Member States to contemplate additional surveillance and monitoring measures, such as information campaigns, aimed at ensuring that those likely to commit an offence (intentionally or not), such as farmers or project developers, are fully aware of the prohibition in

[72] Opinion Advocate General Kokott, Case C-383/09, Commission v France [2011], para. 37.

[73] See amongst others: Commission v Ireland, *supra* note 58, para. 29; Commission v Cyprus, *supra* note 59, para. 61.

[74] *H. Schoukens*, Going beyond the Status Quo: Towards a Duty for Species Restoration under EU Law, in V. Sancin & M.K. Dine (eds.) International law: contemporary concerns and challenges in 2014, GV Založba, Ljubljana, Slovenia, pp. 350–351.

[75] Opinion Advocate General Kokott, *supra* note 72, par. 87.

[76] Commission v France, *supra* note 3, paras. 34–35.

[77] See most notably: Commission v Ireland, *supra* note 58, paras. 34–37. See more extensively: *George QC & Graham*, *supra* note 51, pp. 67–71.

[78] See more extensively: *C. Sobotta*, The impact of species protection on land-use planning: towards a more proactive approach? In: *C.H. Born et al.*, *supra* note 1, p. 150.

force and act accordingly.[79] A similar rationale is also reflected in Article 11 of the Habitats Directive, which imposes the obligation on EU Member States to monitor and assess species populations and which is, according to the CJEU, deemed crucial to ensure the effectiveness of the Habitats Directive.[80] Moreover, according to Article 12(4) of the Habitats Directive, EU Member States are to establish a system to monitor the incidental capture and killing of the animal species listed in Annex IV (a). In light of the information gathered, EU Member States have the obligation to take further research or conservation measures, as required, to ensure that incidental capture and killing do not have a significant negative impact on the species concerned.

3.1.4 Room to bargain: no general exemptions for damaging activities?

It is striking to note that the major threats for the Common hamster, such as intensive agricultural activities and fragmentation of the few remaining hamster habitats, in theory had to be scrutinized from 1994 onwards, at a very minimum in these areas where the Common hamster was still present at the time. The mere fact that detrimental effects to hamsters are caused by a 'lawful activity', such as a building project for which a prior planning permit has been granted or agricultural activities that are exempted from the obligation to obtain a prior permit, does not exempt the activity from the scope of the Habitats Directive.[81] Activities that are detrimental to protected species, of which the negative effects cannot be mitigated, can only be authorized through the application of the derogation clause contained in Article 16(1) of the Habitats Directive. Even so, the CJEU has adamantly held that this clause is to be interpreted in a restrictive manner and imposes on the authority taking the decision the burden of proving that the conditions are present for each derogation.[82]

First and foremost, it is important to reiterate that no general exemption is provided for private spatial interventions, nor for harmful agricultural activities under the Habitats Directive.[83] Under Article 16(1)(c) of the Habitats Directive, projects that can be framed within 'imperative reasons of overriding public interest' are still permissible. However, as can be inferred from the recent case-law[84] and the Commission's 2007 Guidelines[85], this derogation clause needs to be interpreted in a restrictive manner, excluding mere private-led developments. In addition, the granting of a derogation seems to presuppose a rather restrictive balancing exercise, in the context of which it needs to be checked whether no other satisfactory alternatives exist.[86] In the context of this balancing exercise, also recovery considerations might need to be taken into account.

Recent case-law developments indicate that, when considering other reasonable alternatives, economic factors cannot prevail.[87] In other words, the mere fact that a location alternative might be more costly does not render it 'unreasonable' in terms of the derogation clause, especially not when it guarantees that no damage is done to a

[79] Guidance on Strict Species Protection, *supra* note 50, p. 40.
[80] Commission v United Kingdom, *supra* note 52, paras. 26 and 65–68.
[81] See, by analogy: Commission v United Kingdom, *supra* note 52, para. 109.
[82] See for instance: Case C- 342/05, Commission v Finland [2007] ECR I-04713, paras. 20; Commission v Ireland, *supra* note 58, para. 48.
[83] *Schoukens & Bastmeijer*, *supra* note 1, pp. 141–145.
[84] See by analogy: Case C-182/10, Solvay and Others v Région Wallonne [2012] ECLI:EU:C:2012:82, paras. 75–79.
[85] Guidance on Strict Species Protection, *supra* note 50, p. 55.
[86] *Schoukens & Bastmeijer*, *supra* note 1, pp. 143–144.
[87] Ibid, p. 144. See by analogy in the context of Article 6(2) of the Habitats Directive: Case C-399/14, Grüne Liga Sachsen eV et al. v Freistaat Sachsen [2016] ECLI:EU:C:2016:10, para. 73–74.

species' habitat. Recourse to Article 16(1) derogations must remain a last resort and, in principle, precedence is to be given to the preservation of EU protected species over generic economic interests.[88] *A fortiori* such strict reasoning is to prevail in the context of a strict protected species which finds itself on the brink of extinction. Lastly, it is to be guaranteed that the project is not prone to be detrimental to the maintenance of the populations of the species concerned at a favourable conservation status throughout their natural range. Additional mitigation and compensatory measures can be required in order to avoid net losses.[89]

3.1.5 Conflicting interests: an increasing number of deadlock scenarios in planning context due to rapidly declining numbers?

The exact spatial repercussions of the strict protection schemes on land use activities have not remained unnoticed, at least in some EU Member States. In the Netherlands and Germany, where the implementation deficit with respect to EU environmental law is generally considered relatively low, project developers are now facing increasing scrutiny when considering new project developments in areas where protected species, such as the unlikely Common hamsters, might be present.[90] In Germany, for instance, the building of an IKEA store led to the legal protection of an area of 450 ha of mostly agricultural land and some residential zone as a compensation zone, in the context of which a breeding program was established.[91] The administrative burden and hidden costs associated with the presence of Common hamsters, which often cause project developers to consider buffer zones and relocation measures, led several German members of European Parliament to call into question the 'rigorous' protection regime that was applicable to the rodent species, especially since the species is still thought to be abundant in the eastern parts of its range.[92] To some extent, such requests can be deemed reasonable since the primary cause for the decline of the hamster populations was the technological evolution in agriculture rather than the adverse effects of new project developments. However, the foregoing request was denied by the European Commission since it was of the opinion that the rodent species is still highly endangered in Germany and thus further recovery actions were in order.[93] Either way, if not adequately and proactively tackled in an early stage of decision-making procedures for project developments, the presence of the Common hamster can give rise to deadlock scenarios, as showcased by the obstacle course that had to be faced in the renowned Dutch hamster case, which was already alluded to above.[94] To give but one example, in 1999, a zoning plan for the construction of a cross-border industrial zone was quashed by the Dutch Council of State given the fact that the planning authority had not considered its possible impact on Common

[88] Guidance on Strict Species Protection, *supra* note 50, p. 55.

[89] Ibid, p. 63

[90] See on the Netherlands more extensively: *R. Beunen & M. Duineveld*, Divergence and Convergence in Policy Meanings of European Environmental Policies: The Case of the Birds and Habitats Directive, International planning studies, 2010, 15, pp. 321–334.

[91] *Eppink & Wätzold*, *supra* note 2, p. 802.

[92] Written question E/2510–2007 by by Albert Deß (PPE-DE) and Anja Weisgerber (PPE-DE) to the Commission, 14 May 2007, OJ C 45, 16 February 2008.

[93] Answer to written question E/2510–2007 by Mr. Dimas on behalf of the Commission, 27 June 2007, OJ C 45, 16 February 2008.

[94] See more extensively: *J. Verschuuren*, Effectiveness of Nature Protection Legislation in the European Union and the United States: the Habitats Directive and the Endangered Species Act, In: *M. Dieterich & J. van der Straaten* (eds.), Cultural landscapes and Land Use: The Nature Conservation-Society Interface, Kluwer Academic Publishers, 2004, pp. 55–56.

hamsters.[95] Rather ironically, though, the Dutch Council of State ultimately decided to validate the planning permits since no Common hamsters had been documented on the sites for more than 4 years.[96] While the case did not as such focus on the restoration rationale underpinning the Habitats Directive, the Dutch judges seemed to give less importance to the recovery potential of the said area, for instance as potential repopulation area for Common hamsters. In fact, the absence of hamsters on the site was sufficient to ultimately reject the legal challenges against the project development.

3.2 Towards a *recovery-based* rationale in respect of species on the brink of extinction[97]

As already demonstrated, strict prohibitions can also influence habitat management and foster species recovery.[98] Prohibitions can be formulated in such comprehensive terms that they practically amount to active obligations if they permit only the behaviour that is specifically required.[99] However, merely preserving actual habitats, even when applied in a more progressive manner and vigorously enforced, is no longer sufficient for the Common hamster in view of the myriad threats the species is facing nowadays.[100]

3.2.1 Passive prevention and beyond: species action plans as leverage for a more proactive management approach?

On the surface, Article 12(1) of the Habitats Directive appears to be exclusively preoccupied with what might be referred to as 'traditional' passive protection measures. It does not contain a reference to restoration nor to the drafting of recovery plans, as most nature conservation laws do. Still, the adoption of more actively inspired or area-oriented species protection plans is generally seen as an adequate means to ensure an effective regime for the protection of Annex IV species. In its 2007 Guidance on Strict Species Protection, for example, the European Commission advocates the adoption of '*species actions plans*' as tools to put the strict schemes on species protection in practice.[101]

The latter hints that Article 12(1) of the Habitats Directive presupposes a more proactive approach of species protection, ultimately aimed at helping species in peril stabilize and improve, if needed. Although the 2007 Guidance on Strict Species Protection does not provide for a detailed template for such action plans, it is generally believed that, if such plans are correctly established and applied, they might enable a more tailored approach to species protection, including potential recovery measures.[102] Ideally, such plans could provide important information on species and their habitats, breeding sites and resting places, and set out specific recommendations and actions aimed at ensuring the successful conservation of the species in question. Also, Article 8(f) of the Convention on Biological Diversity refers to the implementation of plans and strategies in order to achieve recovery and resto-

[95] Dutch Council of State, Case no. E01.97.0672 (1999).
[96] Dutch Council of State, Case no. 200100856/23 (2002).
[97] See more extensively: *H. Schoukens*, Towards a legally enforceable duty to restore biodiversity under EU Nature Conservation Law: On wild hamsters, the rule of law and species extinction, In: J. Jendroska & M. Bar (eds.), Procedural environmental rights: Principle X of the Rio Declaration in theory and practice (Provisional title), Wroclaw, 2018, *submitted*.
[98] Opinion Advocate General Kokott, *supra* note 72, para. 46.
[99] Ibid, para 47.
[100] See amongst others: *La Haye, Verbist & Koelewijn*, *supra* note 42, pp. 163–166; O' Brien, *supra* note 6, pp. 92–94.
[101] Guidance on Strict Species Protection, *supra* note 50, p. 29.
[102] See also, in this respect: Opinion Advocate General Léger, Case C-183/05, Commission v Ireland [2007], para. 39.

ration. The relevance of population management plans can equally be deduced from the Carnivore Guidelines[103], which were prepared by a Specialist Group of the IUCN Species Survival Commission and were published by the European Commission in 2008.[104] The necessity to implement species action plans, moreover, finds support in recent jurisprudence of the CJEU. For instance, in its 2007 ruling on the Irish implementation regime the Court held Ireland liable for not having adopted such plans for the majority of the Annex IV species that are present on its territory.[105] Yet it remains farfetched to hold that there exists something as an explicit duty to draft species action plans for all Annex IV species present on the territory of an EU Member State, especially when the said species are already at a favourable conservation status.

As to the substance of such plans, the European Commission mainly stressed the importance of having included a strict set of preventative measures therein. This led the European Commission to conclude in its 2007 Guidance on Strict Species Protection that 'Article 12 should not be interpreted as requiring the adoption of pro-active habitat management measures, such as for example the restoration or improvement of habitats for certain species.'[106] Admittedly, the Commission acknowledged that such repopulation or restoration measures might still be in order for certain species. Still, they are only obligatory in the context of designated Natura 2000 sites.[107] However, in the Commission's opinion, this would require measures covered by Article 6(2)-(4) of the Habitats Directive. The viewpoint of the European Commission, as included in the 2007 Guidance on Strict Species Protection, is non-binding yet it seems to be common sense not to deduce an active restoration or recovery obligation from a provision which merely sets out a passive protection scheme. Be that as it may, a closer look at the wording of the Habitats Directive indicates that this is a foregone conclusion, even regarding the specific system of strict protection for Annex IV species.[108] It can indeed be portended that the wording of several core provisions indicates that the Habitats Directive can, at least partly, serve as an important catalyst for ecological restoration at the EU Member States' level, also as regards Annex IV species. In article 1, a) of the Habitats Directive, the notion of 'conservation' is defined as 'a series of measures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favourable status'. Hence, when Article 2(1) of the Habitats Directive states that the general aim of the Habitats Directive is to contribute to ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora, this also encompasses the restoration measures, if necessary, to achieve the 'favourable conservation status' for the species listed in its annexes.

Pursuant to Article 1(i) of the Habitats Directive, a favourable conservations status presupposes, among other things, that a *sufficiently large habitat* is available to maintain populations in the long run. This might entail the implementation

[103] *J.D.C. Linnell, V. Salvatori & L. Boitani*, LCIE Guidelines for population level management plans for large carnivores, 2008, http://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/guidelines_for_population_level_management.pdf (Accessed 10 February 2017), pp. 26–29.

[104] See more extensively: *A. Trouwborst, L. Boitani & J.D.C. Linnell*, Interpreting 'favourable conservation status' for large carnivores: how many are needed and how many are wanted?, Biodiversity and Conservation, 2016, pp. 51–52.

[105] Commission v Ireland, *supra* note 58, paras. 14–15.

[106] Guidance on Strict Species Protection, *supra* note 50, p. 26.

[107] Ibid, p. 20.

[108] See for a more detailed analysis: *Schoukens*, *supra* note 97; *Cliquet, Decleer & Schoukens*, *supra* note 21, pp. 272–275.

of habitat restoration measures or reintroduction actions when no sufficiently large habitat is available or the species has disappeared in its historical range. The necessity of proactive conservation actions aimed at the recovery of viable populations is undisputed in many imminent extinction scenarios. Recent research underscores that both reintroduction efforts and habitat restoration are key to avoid extinction of the Wild hamster in the westernmost parts of its habitat.[109] Evidently, the overarching goal of the Habitats Directive needs to be taken into consideration when interpreting the specific protection duties laid down in its core provisions.[110]

Furthermore, it can be maintained that such restoration rationale also results from the EU's international obligations as enshrined in the Bern Convention and the Convention on Biological Biodiversity, for instance.[111] Article 8, f) obliges State Parties to '(*r*)*ehabilitate* and *restore* degraded ecosystems and *promote* the recovery of threatened species, inter alia, through the development and implementation of plans or other management strategies' (emphasis added). In turn, Article 11(2)(a) of the Bern Convention explicitly urges Contracting Parties 'to encourage the *reintroduction* of native species of wild flora and fauna when this would contribute to the conservation of an endangered species, provided that a study is first made in the light of the experiences of other Contracting Parties to establish that such reintroduction would be effective and acceptable' (emphasis added). While the latter provision, which finds its counterpart in Article 22 of the Habitats Directive, does not lay down a mandatory duty to reintroduce native species, the recent experiences with the restocking and captive breeding of Common hamsters in Belgium and the Netherlands underscore its relevance in this regard.

Lastly, the recovery rationale underpinning the Bern Convention was also recognised by the Standing Committee to the Bern Convention when issuing a Draft European Action Plan for the conservation of the Common hamster in 2008. The restoration of perennial feed crops as key habitat is listed as one of the most relevant key actions in this respect.[112] In addition, the Draft Action Plan explicitly puts emphasis on conservation breeding and reintroduction as a possible *ex situ* measure, which was at the time already being implemented in the Netherlands, France and Germany in several zoos and universities.

3.2.2 The favourable conservation status as a benchmark: persisting implementation questions?

When establishing that the recovery rationale underpinning the Habitats Directive also covers Annex IV species such as the Common hamster, the relevance of the concept of 'favourable conservation status' is self-evident. The concept presents itself as a useful benchmark when drafting and implementing conservation plans. It is

[109] *La Haye, Verbist & Koelewijn*, *supra* note 42, pp. 159–166. See also more generally: *P.J. Seddon*, From reintroduction to assisted colonization: moving along the conservation translocation spectrum, Restoration Ecology, 2010, 18(6), pp. 796–802.

[110] This was also explicitly recognised by the European Commission in its 2007 Guidance. On page 28 the Commission states that: '(…) Article 12 has to be interpreted in the light of Article 1(i), which defines the favourable conservation status of a species. In addition, the measures taken by the EU Member States should be appropriate with a view to attaining the objective of maintaining or restoring the conservation status of a species'. See: Guidance on Strict Protection, *supra* note 50, p. 28.

[111] According to the steadfast case-law of the CJEU, provisions of secondary EU law must, in as far as possible, be interpreted in a manner that is consistent with the obligations of the European Union under international law. See amongst others: Case C-61/94, Commission v Germany [1996] ECR I-3989, para. 52; Case C-341/95, Bettati [1998] ECR I-4355, para. 20; Case C-286/02, Bellio F. lli [2004] ECR I-3465, para. 33.

[112] *Standing Committee, supra* note 31, pp. 23–24.

essentially a legal-ecological concept, which is explicitly defined by Article 1(i) of the Habitats Directive.[113] Pursuant to the latter provision, the conservation status of a species encompasses 'the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2'. According to Article 1(i) of the Habitats Directive the conservation status of a species will be regarded as 'favourable' according to the Habitats Directive when population dynamics of the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitat, the natural range of the species is neither being reduced nor is likely to be reduced in the foreseeable future and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis. However, as showcased by the recent scientific literature on this topic, many controversies are surrounding the exact interpretation of the concept of favourable conservation status.[114]

In its previous case-law, the CJEU repeatedly stressed the importance of the concept of favourable conservation status, for instance as a precondition to be observed when issuing derogations under Article 16(1) of the Habitats Directive.[115] Still, as of today, the CJEU has not yet handed down a clear-cut decision in which more substantial guidelines regarding the concrete interpretation of the crucial concept are offered. Even in the French hamster case, where it was explicitly recognised that the intensification of agriculture rendered the long-term survival of the species precarious, the CJEU did not extensively dwell on the exact implementation of the concept of favourable conservation status. The CJEU merely noted that 'there were no populations of the (European hamster) (…) which reached its minimum viable population threshold, which is estimated at 1 500 individuals spread over an area of contiguous suitable land of 600 hectares'.[116] In light of the subsequent analysis, it is interesting to note that the French recovery policy consisted in at least achieving three pockets of populations measuring around 1 500 individuals in the Alsace region.[117] This approach was based on recently conducted scientific work regarding minimum viable populations of the Common hamster[118] and is also applied in other EU Member States, such as Belgium.[119]

Over the past few years, though, the European Commission has issued several guidance documents in which the concept of favourable conservation status is further clarified to the EU Member States – explaining, among other things, how EU Member States should report the favourable conservation status in the context of the obligation to report under Article 17 of the Habitats Directive – which provide us with important clues in this respect.[120]

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[113] *Epstein, Lopez-Bao & Chapron, supra* note 70, p. 82. See also: *Schoukens*, *supra* note 97.

[114] See more extensively: *Epstein, Lopez-Bao & Chapron, supra* note 70, p. 81; *Y. Epstein*, Favourable Conservation Status for Species: Examining the Habitats Directive's Key Concept Through a Case Study of the Swedish Wolf, Journal of Environmental Law 2016, 28, p. 232; *Trouwborst, Boitani & Linnell*, *supra* note 104, pp. 55–56.

[115] See for instance: Commission v Finland [2007] ECR I-4713.

[116] Commission v France, *supra* note 1, para. 24.

[117] Opinion Advocate General Kokott, *supra* note 72, para. 72–75.

[118] See: *A. Kayser*, Contemplation about minimum viable population size in common hamsters, In: *I. Losinger* (ed.), The Common hamster Cricetus cricetus, L 1758. Hamster biology and ecology, policy and management of hamsters and their biotope. Proc. 12th Inter2. Hamsterworkgroup, October 16th-18th 2004, Strasbourg, Paris.

[119] *La Haye, Verbist & Koelewijn*, *supra* note 42, p. 165.

[120] *D. Evans & M. Arvela*, Assessment and Reporting under Article 17 of the Habitats Directive: Explanatory Notes, Guidelines for the Period 2007–2012, 2011 (further referred as '2011 FCS Guidelines').

While the exact ramifications of these concepts are further addressed below, one of the most seminal questions in this respect relates to the level or scale at which the favourable conservation status needs to be attained. The relevance of the geographical scale at which the conservation status of a species needs to be measured speaks for itself. The example of the Common hamster is again instructive in this respect. If the conservation status is to be achieved at European level or at supra-national or population level, this might entail that the European Commission is incapable of focussing its infringement proceedings on the limited size of the hamster populations of each individual EU Member State. Instead, the Commission should assess the viability of all remaining populations of the Common hamster in Belgium, the Netherlands and North Rhine-Westphalia combined. This might make sense ecologically speaking, since it has indeed been established that the three sub-populations are to be considered one cluster on the European scale.[121] And, to a certain extent, the latter more liberal interpretation appears to be in line with the wording of the Habitats Directive, which explicitly aims to 'contribute to ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the EU Member States to which the Treaty applies'.[122] On the downside, though, if such more liberal understanding of the notion of favourable conservation were accepted, a judicial review of national or regional conservation efforts would be rendered extremely difficult.[123] In the absence of strict judicial oversight, some EU Member States might be less inclined to step up their recovery efforts for declining populations still present on their territory. As indicated by Trouwborst et al., among others, the answer to the above-mentioned question differs depending on whether one approaches it within the context of reporting duties, habitat protection (Natura 2000) or, alternatively, within the context of strict species protection. As to the latter, the prevailing view is that the national level, when combined with a population approach, is the appropriate benchmark to be used in this perspective.[124] For instance, in the infringement proceedings that were launched against France, the Netherlands, Germany and Belgium regarding the inadequate protection of the Common hamster, the European Commission exclusively focused on the national population numbers and refused to take into account populations in neighbouring countries or regions.[125] These findings are implicitly underscored by the outcome of the French hamster case, where the EU judges at no point appeared willing to take into consideration other hamster populations in neighbouring countries such as Germany.[126]

In the more recent infringement proceedings against Sweden regarding the conservation of its wolf populations the European Commission also principally focused on whether the national conservation efforts allow the population to effectively contribute to the maintenance of the species at biogeographical level.[127] In line with the available literature on this topic, one can thus conclude that this rather restrictive approach is the correct one. Such a view excludes scenarios in which a EU Member State, which itself has undertaken insufficient measures to protect the Common hamster, might draw benefit from the

[121] *La Haye, Neuman & Koelewijn*, *supra* note 30, p. 311.
[122] See more extensively: *Schoukens*, *supra* note 97.
[123] *Trouwborst, Boitani & Linnell*, *supra* note 104, pp. 48–50.
[124] Ibid, p. 49; *Epstein*, *supra* note 114, pp. 242–243.
[125] See for instance: *European Commission*, Reasoned Opinion 13 July 2005, Infraction case P 2001/4984.
[126] Commission v France, *supra* note 1, para. 24.
[127] *European Commission*, Additional Reasoned Opinion in Infringement Proceeding 2010/5200 (Swedish) 19 June 2015, para. 44–51. See more extensively: *Epstein*, *supra* note 114, pp. 222–225.

more adequate conservation efforts made by a neighbouring EU Member State and ultimately would escape accountability.[128] Either way, since all the remaining hamster populations in Western-Europe are well below sustainable levels, the choice of benchmark would matter little in this context. Moreover, the view presented above does evidently not exclude intense forms of international cooperation when implementing a conservation policy for species whose populations straddle different countries and regions. This is already the case for the hamster populations in Belgium, the Netherlands and Germany (North Rhine-Westphalia), where cross-boundary restocking is carried out within the context of a Dutch Breeding Program.[129]

3.2.3 The exact implications of a recovery rationale: towards more scrutiny after the French hamster ruling?

The progressive understanding of the protection duties under Article 12(1) of the Habitats Directive, also encompassing robust recovery actions, appears to be buttressed by the outcome of the French hamster case before the CJEU. As indicated above, the European Commission accused France in this infringement proceeding of not having taken adequate and sufficient measures to secure the continued existence of the Common hamster in the Alsace. Indeed, while many of the above-mentioned rulings of the CJEU focused on cases of inadequate protection of strictly protected species, the recovery rationale of the French hamster case is undeniable.[130] The focus was more on repopulation and recovery than on simple protection. The formalistic counter-arguments of France, which heavily relied upon the literal wording of Article 12(1) of the Habitats Directive in order to submit that repopulation efforts were not needed beyond the habitats which were actually populated by Common hamsters, did not sway the EU judges. The European Commission argued that the designation of priority action areas (PAAs) and repopulation areas was in itself insufficient to bring about the much anticipated recovery of the protected rodent species. As to the PAAs, the European Commission submitted that the objective of 22% of crops favourable to the Common hamster had only been reached in one of the three existing PAAs, which moreover represented only 2% of all land favourable to the Common hamster. In view of the steep decline of the population of hamsters in Alsace between 2001 and 2007, the CJEU quickly concluded that the French hamster-friendly management measures were not adequate in view of its obligations under Article 12(1) of the Habitats Directive. And thus the ruling of the CJEU can rightly be quoted as a landmark decision in terms of validating a more recovery-based approach to the protection of endangered species.

4. Law in *inaction*: imminent extinction looming after a decade of half-hearted conservation efforts?

Having established the clear-cut recovery rationale underpinning the conservation duties of EU Member States under the Habitats Directive vis-à-vis the Common hamster, the focus now shifts to concrete national and regional implementation efforts in this respect, with a particular focus on the Flemish Region (Belgium). In this section, the regional conservation actions that were implemented in the Flemish Region between 2000–2015 are examined in view of the above-conducted analysis. The exact causes of their failure to halt the ongoing decline are further identified below. While these reasons are probably not substantially different from other deficient spe-

[128] See also: *Schoukens*, *supra* note 97.

[129] *La Haye, Verbist & Koelewijn*, *supra* note 42, pp. 158–166. See also more recently: *La Haye et al.*, *supra* note 46.

[130] Commission v France, *supra* note 1, para. 15. See also: *Schoukens*, supra note 74, pp. 352–354.

cies conservation strategies within the EU, they do help to better understand the subsequently voiced criticism concerning the modest ambition level of the more recent recovery actions in the Flemish Region.

4.1 The slow and inadequate transposition and enforcement of the EU Habitats Directive in the Flemish Region

In spite of the entry into force of the Habitats Directive in 1994, the policy response to the decline of the Common hamster in countries such as the Netherlands, Belgium (Flemish Region) and France has been notoriously slow, which has led some commentators to speak of 'extermination through inaction'.[131] Since the year 2000, though, several conservation schemes have been set up to support the isolated and fragmented populations in Belgium (Flemish Region), Germany, the Netherlands and France. In line with the scientific recommendations, actions mostly consist of habitat restoration measures and a combination of captive breeding and reintroduction efforts.[132] Notwithstanding the impressive sums of money invested in recovery actions and agri-environment schemes, these efforts brought no relief for the Common hamsters.[133] Only in the Netherlands, where the conditions of the agri-environment schemes were changed in light of the insight gained through adaptive managements, have recent reintroduction efforts modestly paid off.[134] However, the fragmented nature of the few remaining populations of the Common hamster, in combination with the increased risk of inbreeding and loss of genetic diversity, has an ever-more negative bearing on the success rate of the recent conservation efforts.[135]

The very fact that the European Commission has, as alluded to above, started infringement proceedings against Germany, the Netherlands, Belgium and France for their inadequate protection of the Common hamster between 2000–2007 aptly underscores the shortcomings in terms of effective hamster conservation policy.[136] Where the Common hamster had already been formally protected by law since the 1980s in the Flemish Region, this amounted to a mere paper protection. Until 2009, the rules on strict species protection applicable within the Flemish Region were included in an obsolete Royal Decree[137], dating back to the 1980s.[138] In sharp contrast to the Netherlands, where the notorious hamster ruling of the Dutch Council of State served as a catalyst for a stricter application of the species protection in a planning context, the outdated Flemish species protection rules were openly ignored throughout planning procedures for infrastructure programs liable to harm existing or potential habitats for Common hamsters in the Flemish Region, which caused further losses.[139] Throughout the 1990s,

131 *O' Brien*, *supra* note 6, p. 91.

132 *La Haye, Neumann & Koelewijn*, *supra* note 30, p. 311–312. See for an extensive analysis of the Flemish protection measures: *H. Schoukens*, Requiem voor de laatste wilde hamster in Vlaanderen: een juridische paradigmashift in the Antropoceen, Tijdschrift voor Omgevingsrecht en – beleid, 2016, 1, pp. 25–56.

133 *M.J.J. La Haye, G.J.D.M. Müskens, R.J.M. Van Kats, A.T. Kuiters & H. Siepel*, Agri-environmental schemes for the Common hamster (Cricetus cricetus). Why is the Dutch project successful?', Aspects of Applied Biology, 2010, p. 100.

134 Ibid.

135 *La Haye, Verbist & Koelewijn*, *supra* note 42, p. 159.

136 See on Belgium more extensively: *Schoukens*, *supra* note 132, pp. 25–29.

137 Royal Decree of 22 September 1980, Belgian Official Gazette 31 October 1980.

138 See more extensively: *H. Schoukens, A. Cliquet & P. De Smedt*, 'The implementation of the Habitats Directive in Belgium (Flanders): back to the Origin of Species?, Journal of European Environmental & Planning Law, 2007, 2, pp. 135–138.

139 See also: *H. Schoukens & P. De Smedt*, Soortenbeschermingsrecht: Toepassing bij ruimtelijke projecten, NieuwJuridischWeekblad, 2014, 295, pp. 50–71.

many farmers were moreover left unaware of the protected status of the rodent species and its repercussions on the cultivation practice.[140]

4.2 The first (unsuccessful) attempts to save the Common hamster in the Flemish Region

The ineffective enforcement of the passive protection rules notwithstanding, it would be incorrect to state that the Flemish government had not promulgated any substantial conservation action for the Common hamster prior to 2015. In 2001, a first conservation plan was drafted by an environmental NGO (*De Wielewaal*), which put forward a first list of measures aimed at halting the decline of the species.[141] It was inspired by the recent experiences with hamster conservation in neighbouring EU Member States and regions, covering restocking efforts, habitat restoration measures through hamster-friendly environmental contracts and the creation of strictly protected core areas. Yet the concrete implementation thereof faced additional complications and delays. At the time, the preservation of the rodent species was not deemed a political priority. No comprehensive regulatory framework existed which attached explicit legal effects to the proposed conservation and recovery measures. The fact that the population levels had fallen below sustainable levels considerably limited the success of the half-hearted conservation measures.

In the meantime, however, the European Commission initiated infringement proceedings against Belgium with respect to the inadequate protection of the Common hamster. A first letter of formal notice was send in 2004, in which the European Commission put forward that insufficient active protection measures had been implemented in light of the ongoing decline of the hamster populations.[142] Furthermore, in the Commission's opinion, the Flemish Region had failed to establish a system to monitor the incidental capture and killing of the animal species listed in Annex IV (a), as is explicitly required by Article 12(4) of the Habitats Directive.

While the Flemish Region declined to provide an adequate response to the initial request for information, the pressure by the European Commission fueled further actions to preserve the Common hamster, which ultimately resulted in the establishment of a first generation of hamster conservation measures.[143]

Four so-called 'hamster core areas' were designated, each of them covering the last remaining areas where Common hamsters were present. In these hamster core areas compensation payments to farmers for species protection measures were provided, which should help maintain hamster-favourable croplands. However, no additional protection measures were promulgated. A specific information campaign was launched in order to inform the farmers who cultivated land in the said hamster core areas of the presence of the rodent species. In addition, monitoring actions were initiated. Prior to that, a specific set of agri-environment contracts had been enacted to promote hamster-friendly crops in the selected hamster core areas.[144] Two types of contracts were offered, aimed at either growing lucerne or leaving parts of a cereal field unharvested. These voluntary contracts, with a five-year term, included generic conditions, such as the reduced use of pesticides, the absence of maize and additional

[140] Ibid.

[141] *De Wielewaal & Natuurvereniging v.z.w.*, Soortenbeschermingsplan Hamster, Onderzoek in opdracht van AMINAL, afdeling Natuur, 2001, 107p.

[142] *European Commission*, letter of formal notice to Belgium, 13 October 2004.

[143] *Schoukens*, *supra* note 132, pp. 25–29.

[144] *Stichting Limburgs Landschap vzw*, Promotie van beheerovereenkomsten specifiek voor de hamster bij landbouwers in de kernleefgebieden, Onderzoek in opdracht van AMINAL, Afdeling Natuur, 2004.

restrictions on deep ploughing.[145] Likewise, the decision was taken to actively participate in the Dutch breeding program, which had been set up in the year 2001.

Although well-intended, these actions did not succeed in swaying the European Commission. In its Reasoned Opinion of 13 July 2005, the latter reiterated its previous objections and held that the conservation measures were poorly coordinated and did not succeed in halting the ongoing decline.[146] In particular, it was underlined that the conservation measures relied too extensively on voluntary measures, such as agri-environment contracts and subsidies. It is worth keeping in mind this particular element for the subsequent analysis of the recently adopted Flemish hamster protection program.

Also, one should take into consideration the other obstacles faced by the first generation of restoration efforts. To some extent, the high costs tied to effective hamster recovery plans and the less emblematic status of the Common hamster caused further delays. The latter was starkly illustrated by the absence of a robust acquisition program aimed at the creation of strictly protected 'hamster reserves' in the remaining core areas that had been designated in 2004.[147] The 2005 Execution Plan merely aimed at further streamlining the actions laid down by the 2001 Hamster Conservation Plan. Most prominently, the acquisition of 15 hectares of hamster biotope per hamster core area had been put forward as a prominent *in situ*-protection measure for the selected hamster core areas. This acquisition program has never been effectively implemented on the ground. However, several hamster-friendly contracts were concluded with some farmers.

In 2007 and 2008, though, 120 hamsters from the Dutch captive breeding program were reintroduced in two of the four established hamster core areas (*Leuven-Bertem* and *Wildooie-Tongeren*).[148] While the reintroductions succeeded in temporarily boosting the local hamster populations[149], they ultimately proved unsuccessful, as was illustrated by the disappearance of the Common hamster in all but one of the selected hamster core areas.[150] The absence of any long-term conservation actions in the field, impeded the species from establishing itself in a more sustainable manner.

5. The 2015 Species Protection Program for the Common hamster: genuine or half-hearted recovery attempts?

With the adoption of the 2009 Species Protection Regulation[151] a new impetus was given to species conservation within the Flemish Region. The latter set of rules sought to adequately implemented the strict protection scheme set out by Articles 12–16 of the Habitats Directive in Flemish nature conservation legislation. Moreover, the Species Protection Regulation provided an explicit legal framework for the adoption of species conservation measures that went beyond mere preventative protection measures.[152] Amongst others, the 'species protection program' was put forward as new instrument to implement recovery measures

[145] Ministerial Decision of 14 June 2005 to modify the Ministerial Decision of 18 December 2015, Belgian Official Gazette 15 July 2005.
[146] *European Commission*, Reasoned Opinion of 13 July 2005, case no. 2001/4984.
[147] *Afdeling Natuur*, Hamster Uitvoeringsplan, 2005.
[148] *La Haye, Verbist & Koelewijn*, *supra* note 42, p. 163.
[149] Ibid, p. 166.
[150] *La Haye et al.*, *supra* note 46.
[151] Decision of 15 May 2009 regarding the protection and conservation of species, Belgian Official Gazette 1 September 2009 (further referred to as 'Flemish Species Protection Regulation').
[152] Article 24 of the Species Regulation explicitly stipulates that the Minister competent for Nature Conservation *can* enact additional active species conservation actions for species that are threatened or endangered.

for endangered species, such as the Common hamster. Article 1, 11° of the Species Protection Regulation stipulates that a 'species protection program is a program of measures which aims to achieve the favourable conservation status of one or more species in the area to which the program is applicable'. The procedure to draft a species protection program can be initiated by either private individuals, nature conservation organisations or governmental bodies.[153] Yet ultimately all species protection programs need to be adopted by the Minister competent for Nature Conservation.

If necessary, a species protection program can contain additional protection duties, which can supplement the generic protection rules implementing Articles 12–16 of the Habitats Directive.[154] A species protection program can have a duration of maximum five years, which can be prolonged by the Minister competent for Nature Conservation, if deemed appropriate.[155]

In spite of the obvious sense of urgency, the Flemish government waited a staggering six (!) years to come forward with a tailor-made species protection program for the protection and recovery of the Common hamster, whose populations had further crumbled during the past decade. This delay can partly be explained by the absence of any additional pressure from the European Commission, which ultimately deemed it unnecessary to bring Belgium before the CJEU for its failing hamster conservation policy, as it had done with France. One can assume that the entry into force of the Species Protection Regulation in 2009 was used as leverage by the Flemish government in order to convince the European Commission of its good intentions. Moreover, in order to further implement the species protection programs, the Flemish government first needed to publish the regional conservation objectives. This was only done by a decision of the Flemish government of 23 July 2010.[156]

Yet the additional delays only helped to increase the scope of the Flemish recovery challenge regarding the Common hamster. Finally, the Species Protection Program for the Common Hamster was adopted by the Flemish Minister competent for Nature Conservation on 21 December 2015 and published in the Belgian Official Gazette on 20 January 2016.[157] The adoption of the program coincided with the entry into force of two other protection programs for endangered farmland species (the Montagu's harrier (*Circus pygargus*) and the Corn crake (*Crex crex*)). The territorial scope of the Flemish hamster protection program moreover partly overlaps that of the protection program for the Montagu's harrier.

In line with the previous hamster conservation plans in neighbouring countries, the Flemish hamster protection program puts forward an area-oriented approach in order to safeguard the survival of the Common hamster in the Flemish Region. In total, 635,000 EUR of public funds have been made available to invest in proactive conservation measures for the Common hamster. A set of progressive habitat restoration measures and reintroduction efforts is put forward in order to safeguard the last remaining hamster population in the zone *Wildooie-Tongeren*. As a follow-up to the 2015–2020 species protection program, the conservation of a second 'hamster zone' is is anounced for 2020. By that year, ad-

[153] Article 27 of the Flemish Species Protection Regulation.

[154] Article 25 (2) of the Flemish Species Protection Regulation.

[155] Article 27(3) of the Flemish Species Protection Regulation.

[156] Decision of the Flemish government of 23 July 2010 on the approval of the regional conservation objectives for protected species and habitats, Belgian Official Gazette 5 November 2010.

[157] See *supra* note 28.

ditional conservation actions are expected to be implemented in the area *Bertem-Leuven*, one of the earlier established hamster core areas where hamsters have been present until recently and where reintroduction actions had been carried out throughout the past decade.

At the time of its publication, the competent Minister for Nature Conservation hailed the Flemish hamster protection program as a remarkable example of proactive nature management because of the strong reliance on habitat restoration and species reintroduction.[158] In turn, the nature conservation organisations welcomed the program as a first step towards compliance with the conservation duties incumbent upon the Flemish Region.[159] In light of the ongoing situation of non-compliance regarding the Common hamster, the important question arises whether the concerted measures are really effective enough to remedy the ongoing implementation deficit. Below it is argued that the Flemish hamster protection program has four potential shortcomings in view of the restoration imperative underpinning the Habitats Directive.

5.1 How many Common hamsters are needed in the Flemish Region?

When drafting the Flemish hamster protection program, the competent authorities first needed to ponder on what specific baseline to use. At first glance, several, often conflicting approaches appear to be valid in this respect. For some, traditional conservation measures are to be limited to safeguarding the survival of the few remaining populations in the Flemish Region might suffice. In view of the applicable international, EU and regional nature conservation rules, though, it was soon obvious that the ultimate goal of the program ought to be the achievement of the so-called 'favourable conservation status'. Along those lines, EU Member States cannot limit themselves to maintaining an endangered species at suboptimal levels.

At the time of the establishment of the *regional* conservation objectives for protected species in 2010, the Flemish government had already acknowledged that the conservation status of the Common hamster was to be assessed as 'unfavourable' in the Flemish Region. However, whereas it was explicitly acknowledged that the hamster needed additional 20–25 hectares of landscape elements such as field edges and fallow lands, no additional quantified goals in terms of populations and range were set.[160] In the accompanying scientific reports it was noted that in order to achieve a favourable conservation status for the Common hamster, more than 500 burrows (individuals) are needed for each individual 'hamster zone'. This would correspond to at least 125 hectares of hamster-friendly habitats.[161] In the Flemish hamster protection program itself, these conservation objectives are reinforced and further determined. As such, the Flemish hamster protection program 2015–2020 prioritized the achievement of a mere 125 hectares of hamster-friendly land in one hamster zone within a time frame of 5 years.

The population and habitat restoration targets included in the Flemish hamster protection program are said to be based upon the best

[158] See: Vlaanderen gaat hamsters uitzetten, De Standaard, 11 January 2016, http://www.standaard.be/cnt/dmf20160111_02060441 (Accessed 10 February 2017); 635.000 euro om laatste wilde hamster te reden, Belang van Limburg, 9 augustus 2016, http://www.hbvl.be/cnt/dmf20160808_02417248/vrijwilligers-zoeken-hamster-burchten (Accessed 10 February 2017).

[159] See: Hamsters uitzetten als redmiddel voor povere populatie, VILT, 11 January 2016, http://www.vilt.be/hamsters-uitzetten-als-redmiddel-voor-povere-populatie (Accessed 10 February 2017).

[160] See *supra* note 156.

[161] Flemish hamster protection program, *supra* note 28, pp. 27–28.

available science at hand. Yet they remain challengeable in view of the comprehensive recovery rationale that is underpinning the Habitats Directive. For one, the target of restoring one core of 500 individuals by 2020 appears rather low and may arguably be incompatible with the above-presented restoration imperative, especially when compared with the more progressive targets set by other hamster conservation plans in neighbouring regions and countries. As indicated above, the French hamster conservation measures discussed above aimed to establish three core populations of 1 500 individuals each, which is also reinforced in the more recent conservation plans[162]. Equally, Dutch recovery efforts indicate that a minimum of 300 hectares is recommendable when implementing hamster-friendly management.[163] However, none of such more ambitious targets are to be found in the Flemish hamster protection program for 2020.

The question now arises whether the lack of such more progressive population targets is problematic from a legal perspective. For now, it is widely accepted that conservation plans for Annex IV species need to be based upon the best available scientific knowledge in the field.[164] As such, the Flemish hamster protection program is based on sound science, taking into account all relevant literature on the existing threats to the Common hamsters in Western Europe. It can thus not be dismissed as a clear-cut example of capricious decision-making in environmental matters. Yet the relatively reluctant population and restoration targets might still stand at odds with the seminal concept of 'favourable conservation status', which is underpinning the protection rules included in Article 12(1) of the Habitats Directive. This touches on the more important question as to what criteria are suitable and appropriate when determining the favourable conservation status of a certain species and to ensure its long-term survival. In itself, the concept of favourable conservation status, which has been alluded to above, is primarily a legal one. However, the exact interpretation of many of the multiple terms included therein, such as the critical notion of 'viability', is contingent on the best ecological research available as regards population management in the context of endangered species.[165] This raises questions as to what standards are to be applied in order to assess a EU Member State's compliance with Articles 12–16 of the Habitats Directive.

When establishing population targets for endangered species the concept of 'minimum viable population' (MVP) has become a popular tool to determine the favourable conservation status for a species.[166] As already stated above, the CJEU indirectly used this concept as a benchmark to assess the viability of the remaining hamster populations in the French Alsace. In 1981, Shaf-

[162] *Ministère de l'Écologie, du Développement durable et de l'Energie*, Plan national d'actions en faveur du hamster commun Cricetus cricetus 2012–2016, 2012, p. 51.

[163] *Provincie Limburg*, Natuurbeheerplan 2017, file:///C:/Users/Hendrik.Schoukens/Downloads/Natuurbeheerplan_Limburg_2017%20(2).pdf (Accessed 10 February 2017), 2016, Maastricht, pp. 19–22. See also: *European Economic Interest Group et al.*, Managing farmland in Natura 2000, Case Studies, 2010, http://ec.europa.eu/environment/nature/natura2000/management/docs/Farming%20for%20Natura%202000-Annex%20E-Case%20studies.pdf (Accessed 10 February 2017).

[164] See, by analogy in the context of Article 6(3) of the Habitats Directive: Case C-127/02, Landelijke Vereniging tot Behoud van de Waddenzee en Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij [2004] ECR I-7405, para. 59 and 61.

[165] See more extensively: *Epstein*, *supra* note 114, pp. 229–230.

[166] In the 2008 LCIE Guidelines for Population Management Plans for Large Carnivores it is suggested that MVP should be used in order to determine the 'favourable reference population' of a species. See: *Linnell et al.*, *supra* note 103, pp. 19–20. See more extensively: *Schoukens*, *supra* note 97; *Trouwborst, Boitani & Linnell*, *supra* note 104, pp. 53–55.

fer defined the concept of MVP as 'the smallest isolated population having a 99% chance of remaining existent for 1 000 years despite the foreseeable effects of demographic, environmental and genetic stochasticity, and natural catastrophes'.[167] There is a plethora of research on the methods to estimate MVPs. Even so, it is generally accepted that MVP can be determined in numerous ways. One of the most prominent methods in this respect, however, are population viability analyses (PVA), which use demographic and environmental information to project future population dynamics.[168] Another method to estimate MVPs consists in determining the minimum area that a population needs to inhabit in order to escape environmental catastrophes.

In recent years, though, a relatively great amount of attention has been paid to the evolutionary potential of a population (evolutionary MVP), being the population size required at equilibrium to balance the loss of quantitative genetic variation with the gain from mutation.[169] In view of the sharp decline of the genetic health of the remaining populations of hamsters in Western Europe, such considerations obviously need to be taken into account when setting population targets. Recent studies indicate that using well defined breeding lines combined with a systematic reintroduction scheme is key to safeguard the genetic viability of the few remaining hamster populations in Western Europe.[170] According to Traill et al., genetically viable populations are 'those large enough to avoid inbreeding depression, prevent the accumulation of deleterious mutations, and maintain evolutionary potential'.[171] In this respect, the concept of genetically effective population (*Ne*) is prevalent, which is a measure of a population's genetic behaviour compared to that of an ideal population. When it comes to the concept of *Ne*, there is a wide-spread agreement amongst scientists that for a population to be genetically viable, it must at least consist of 500 effective individuals, *i.e.* individuals who contribute to the genetic diversity of the population's offspring. As the effective population size is normally significantly less than the total population size, it is generally accepted that generally a total population threshold of 5 000 individuals will be required to ensure genetic viability.[172]

Arguably, the exact determination of the MVP, be it through the evolutionary potential of a population or not, is the subject of intense debate in literature.[173] And while some authors posit that *Ne* of 500 should merely be a long-term aspirational goal for maintaining healthy populations[174], the majority of scientists now agree that MVPs should consist of thousands of individuals to ensure long-term persistent populations.[175] For instance, Traill et al. noted that '(c)urrent evidence from integrated work on population dynamics shows that setting conservation thresholds at a few hundred individuals only is a subjective and non-scientific decision, not an evidence-based biological one which

[167] *Shaffer*, *supra* note 10.
[168] *L.W. Traill, B.W. Brook, R.R. Frankham & C.J.A. Bradshaw*, Pragmatic population viability targets in a rapidly changing world, Biological Conservation, 2010, 143, p. 29.
[169] See amongst others: *I.R. Franklin & R. Frankham*, How large must populations be to retain evolutionary potential?, Animal Conservation, 1998, 1, pp. 69–73.
[170] *La Haye et al.*, *supra* note 46.
[171] *Traill et al.*, *supra* note 168, p. 30.
[172] However, Franklin and Frankham seem to submit that higher effective mutations rates might indicate that 500 to 1,000 individuals are sufficient to retain the evolutionary potential. See: *Franklin & Frankham*, *supra* note 169, pp. 69–70.
[173] See for instance: *J.M. Reed & E.D. McCoy*, Relation of Minimum Viable Population Size to Biology, Time Frame, and Objective, Conservation Biology, 2014, 28, pp. 867–870.
[174] *I.G. Jamieson & F.W. Allendorf*, How does the 50/500 rule apply to MVPs?, Trends in Ecology and Evolution, 2012, 27, 583.
[175] *Traill et al.*, *supra* note 168, p. 33; *Reed & McCoy*, *supra* note 173, p. 867.

properly accounts for the synergistic impacts of deterministic threats'[176]. Some scientists even suggest that an effective population of 5 000 (instead of 500) individuals is needed to ensure its long-term survival.[177]

Remarkably so, the Flemish Region has been cited in a 2015 Review of the operationalization of the concept of 'favourable conservation status' as one of the few regions within the EU that use 5 000 individuals as a threshold value when assessing the conservation status of a protected species.[178] As highlighted by the foregoing analysis, such progressive approach is not to be found in the hamster protection program. Perhaps it is revelatory that in the Flemish hamster protection program itself no explicit reference can be found to this more progressive stance. Either way, in light of the current predicament of the rodent species, the above-presented body of science should have urged the Flemish government to implement more ambitious recovery goals, also in the short term. An additional argument to advocate higher population targets for species that themselves on the brink of extinction, can be found in the above-mentioned 2011 FCS Guidelines, promulgated by the European Commission. Although non-binding, they put forward the concept of 'favourable reference population' (FRP) as a tool to be used in order to further define the favourable conservation status of protected species, such as the Common hamster. Interestingly enough, the FCS Guidelines underscore that, whereas the concept of FRP refers to a similar minimum viability threshold as the MVP, the former should be set at a higher level than the MVP.[179] To be more precise, the Guidelines state that '(e)stimates of MVP will, by definition, be lower than FRP'.[180] In addition, it is highlighted that the genetics of a species are also a determining factor when setting viable population targets.[181] Along with Epstein et al., one might infer from the 2011 FCS Guidelines, in particular when read together with the restoration rationale underpinning the Habitats Directive, that EU Member States need to direct their conservation efforts for endangered Annex IV species beyond merely preventing extinction in the short term.[182]

At the same time, however, it must be acknowledged that is was never the Habitats Directive's primary objective to increase the populations of endangered species to their historical levels, way before the entry into force of the Habitats Directive.[183] This is common sense since, if one applied a similar approach when setting the favourable range, this would imply that the entire territory of a EU Member State, even when it has fully transformed into a human-dominated landscape, is eligible as a potential habitat. In order to attain the favourable conservation status it is not necessary to repopulate all of the historical range of a said species.[184] Hence, the Flemish Region cannot be obliged, at least not within the framework of the Habitats Directive, to bring back Common hamsters to sites where the species has disappeared for more than a century. Even so, the 2011 FCS Guidelines rightfully highlight that, when establishing favourable reference values, such should 'at least (be) of the

[176] Ibid, p. 32. See also: *B.W. Brook, N.S. Sodhi & C.J.A. Brashaw*, Synergies among extinction drivers under global change, 2008, Trends in Ecology and Evolution, 23, pp. 453–460.

[177] Lande cited in *Epstein*, *supra* note 114, p. 233, fn. 80.

[178] *A.J. McConville & G.M. Tucker*, Review of the Favourable Conservation Status and Birds Directive Article 2 interpretation within the European Union, Natural England Commissioned Reports, p. 23.

[179] 2011 FCS Guidelines, *supra* note 120, p. 18; *Epstein*, *supra* note 114, pp. 229–231.

[180] Ibid, p. 18.

[181] Ibid.

[182] *Epstein*, *supra* note 114, p. 237–238; *Schoukens*, *supra* note 74, pp. 352–353.

[183] *Epstein, Lopez-Bao & Chapron, supra* note 70, p. 85.

[184] 2011 FCS Guidelines, *supra* note 120, pp. 16–17.

size when the Habitats Directive entered into force'.[185] If these values do not correspond to the favourable conservation status, higher population or habitat reference targets might thus still be required.[186]

Some authors have recently put forward the use of the notion 'carrying capacity', which would take into account the ecological role of a species in the ecosystem and the number of individuals that can be supported by a habitat when determining concrete population numbers.[187] Evidently, such alternative approach could also be used to underpin the role of the Common hamster as a flagship species for the preservation of farmland nature in Western Europe and, ultimately, lead to more ambitious restoration programs. Others have dismissed the latter approach as an unworkable rule in a human-dominated landscape, especially in cases where species such as the Common hamster have become increasingly dependent on human activities.[188] While the carrying capacity approach can certainly give rise to certain ambiguities, its application might indeed lead to a more comprehensive underpinning of future repopulation scenarios for a key-stone species, such as the Common hamster.

Be that as it may, the relatively modest population targets put forward by the Flemish hamster protection program are to be denounced as insufficient to ensure that the Common hamster 'remains a viable component of its habitat', as is required by Article 1(i) of the Habitats Directive. They offer no workable and enduring solution for the survival of the species. To some extent, this has been acknowledged by the Flemish government in the text of the programme. There, it was indeed explicitly recognized that the primary objective of the 2015–2020 program is to stop the ongoing decline and stave off the imminent extinction of the Common hamster. Yet the population and restoration targets set for 2020 seem to underestimate the dire situation of the rodent species. Instead of aiming at re-establishing sufficiently large populations of Common hamsters of a thousand or more individuals within the Flemish Region, the short-term recovery efforts are basically limited to re-establishing populations of several hundreds of individuals, which does not guarantee long-term survival.

Admittedly, the lack of more progressive population targets might be repudiated in view of the current predicament of the Common hamster. However, at the same time a more pragmatic recovery approach is laudable in itself, especially since it will require active breeding and restocking measures and can also be framed as a more realistic solution to the Common hamster's plight. Indeed, one might submit that re-establishing robust populations of thousands of individuals in the short run is neither feasible nor realistic. Even so, the concerted population targets in the Flemish Region seem to fall short in light of the definition of 'favourable conservation status', as included in the Habitats Directive. Given the fact that, as noted above, the MVP for the Common hamster is believed to be 1 500 individuals and taking stock of the existing decline in genetic diversity amongst Common hamsters in Western Europe[189], the short-term Flemish conservation efforts might be inadvertedly 'managing for extinction'. If anything, the loss of gene diversity that has been observed in the remaining populations in the westernmost part of the Common hamster's range[190] should have urged

[185] Ibid, p. 17.
[186] See for more applications on national level: *McConville & Tucker*, *supra* note 178, pp. 22–26.
[187] *Epstein, Lopez-Bao & Chapron, supra* note 70, p. 89.
[188] *Trouwborst, Boitani & Linnell*, *supra* note 104, p. 55.
[189] See *supra* note 118.
[190] See also more generally: *La Haye, Neumann & Koelewijn*, *supra* note 30, pp. 319–321.

the Flemish Government to come up with a more ambitious conservation plan, aimed at establishing different pockets of connected populations of a thousand or more Common hamsters by 2020. Also, the application of the precautionary principle, which has featured so prominently in the case-law of the CJEU, ought have led to a more progressively framed recovery approach.[191]

Having said all this, though, it is important to recognize that the CJEU has yet to shed light on what it exactly means for a species to be a 'viable component of its natural habitat', as is required by the definition of a 'favourable conservation status' for a species. As Trouwborst et al. have noted, 'legal uncertainty persists as to whether one should opt for the carrying capacity approach rather than using extinction as a benchmark'.[192] The above notwithstanding, one could still submit that, legally speaking, EU Member States such as Belgium (the Flemish Region) were minimally required to accord strict protection to the Common hamster from the date of the entry into force of the Habitats Directive, being May 1994. If not, EU Member States that openly declined to adequately enforce the protection duties contained in Articles 12–16 of the Habitats Directive are to draw advantages from their own non-compliance.[193] According to this more legalist reading of Article 12 of the Habitats Directive, one should at least also approach the recent Flemish recovery efforts as a remediation of past non-compliance with the above-mentioned protection rules. And also in this context, the actions seem to fall short of what is legally required.

The latter analysis is buttressed by the settled case-law of the CJEU that underlined that EU Member States are principally obliged to take all general or particular measures for remedying the failure to apply Union rules regarding environmental protection.[194] While EU law does not as such preclude national legislation which, in certain cases, permits the regularisation of actions which are unlawful in the light of EU law, this should remain exceptional[195] and should not be able to put into jeopardy the objective of a high level of protection of the environment, as included in Article 191 TFEU[196]. In the specific context of the Habitats Directive, reference is to be made to the recent case-law of the CJEU, in which it has already been underlined that EU Member States cannot be rewarded for their failure to adhere to their obligations regarding the designation of Natura 2000 sites.[197] And whereas the European Commission did not base its claims in the French hamster case on France's failure to bring back the species to its 1994 levels, which were probably considerably higher than the MVP of 1 500 individuals, Advocate General Kokott acknowledged that such a claim would not be off-limits within the context of the Habitats Directive.[198] Moreover, in a 2014 ruling pertaining to the conditions under which Natura 2000 sites could be declassified, the CJEU highlighted that EU Member States are in principle obliged to recover degraded protected sites, especially when the degradation is the result of an earlier non-observance of the conservation duties linked thereto.[199] Im-

[191] *Trouwborst*, *Boitan*i & *Linnell*, *supra* note 104, pp. 55–56.
[192] Ibid, p. 58.
[193] See also: *Schoukens*, *supra* note 97.

[194] Case C- 348/15, Stadt Wiener Neustadt [2016] ECLI:EU:C:2016:882, paras. 48–47; Case C-201/02, Wells [2004] ECR I- I-00723, para. 68.
[195] See to that effect: Case C-215/06, Commission v Ireland [2008] ECR I-04911, para. 57 and 61.
[196] See to that effect: Case C-379/15, Association France Nature Environnement [2016] ECLI:EU:C:2016:603, paras. 35; Case C-41/11, Inter-environnement Wallonie [2012] ECLI:EU:C:2012:103, para. 55.
[197] Case C-347/98, Commission v France [2000] ECR I-10799, para. 50.
[198] Opinion Advocate General Kokott, *supra* note 72, par. 51.
[199] Case C-301/12, Cascina Tre Pini s.s. [2014] ECLI: EU:C:2014:214, para. 50.

portantly, however, the Flemish hamster protection program is not concerned with repopulating the reference habitat which was still occupied by Common hamsters at the time of the entry into force for the Flemish Region (1994). No reference whatsoever is made to the reference date of 1994. Equally, the conservation measures put forward in the Flemish hamster protection program are not explicitly linked to the obvious non-compliance of the past decades.

Admittedly, one might submit that it remains difficult to define the exact size of the reference population and habitat in 1994. However, the available data from the past decades clearly indicate that there were at least four areas left at the end of the 1990s where Common hamsters were still present. Arguably focussing on past losses might be deemed irrelevant if newly established conservation plans focused on the short-term achievement of the favourable conservation status. Yet in the absence of such clear-cut ambitions, the applicable conservation plans should at least enable the government to remedy the past, 'illegal' losses. Such 'corrective' approach is to pave the way for more far-reaching recovery schemes, in terms of both population numbers and reference habitat.

By contrast, the Flemish hamster protection program merely focuses on one of the four areas that were inhabited at the entry into force of the Habitats Directive (*Wildooie-Tongeren*). It concisely hints at the conservation of another, additional hamster zone beyond 2020. In view of the long delays that were associated with the adoption of the first hamster protection program and the additional time it will take to effectively implement the proposed actions, it remains highly uncertain whether this follow-up program will be operational in time. It can therefore be submitted that the applicable time-frame as well as the refusal to include more vast repopulation areas unnecessarily puts into jeopardy the further survival of the species altogether in the Flemish Region and therefore is incompatible with Article 12(1) of the Habitats Directive.

5.2 The substantive scope of the measures: beyond mere protective measures?

The exact population and recovery goals underpinning the Flemish hamster protection program remain subject to further criticism. However, the toolbox of conservation measures put forward to prevent the remaining hamster populations from disappearing appears impressive at first sight. It relies both upon habitat restoration measures and on active restocking efforts. In other words, the concerted actions ostensibly go beyond what is traditionally viewed as 'protective measures'. At first glance, this might be surprising since, as alluded to above, according to the European Commission's 2007 Guidance on Strict Species Protection, proactive habitat restoration or reintroduction efforts are not required within the framework of Articles 12–16 of the Habitats Directive.[200] The Commission explicitly underlined that 'if proactive biotope restoration is needed for a butterfly species listed only in Annex IV(a) because its habitat has nearly disappeared and only a larger habitat would ensure long-term survival, such a measure would not be covered by Article 12'.[201] It merits little consideration to understand that, under such an interpretation, the chances of survival of highly endangered species would be uncertain. As argued above, Article 12(1) of the Habitats Directive would indeed lose all its effect, especially in a situation of continuing non-compliance, if it did not also encompass recovery actions. Moreover, in times of ecological change and degradation, it

[200] Guidance on Strict Species Protection, *supr*a note 50, p. 26. See more extensively: *Schoukens*, *supra* note 74, pp. 351–354.
[201] Guidance on Strict Species Protection, *supr*a note 50, p. 26.

is widely accepted that more proactive conservation actions, such as reintroduction aimed at re-establishing a viable population of a focal species within its historic range, are crucial to avoid further losses.[202]

It is true that the ambiguity that emerged from the 2007 Guidance on Strict Species Protection was further reinforced by the analysis included in Advocate General Kokott's Opinion in the French hamster case. For instance, in paragraph 50 she held that '(…) measures in areas where there are no hamster burrows are not necessary. Measures of that kind are certainly sensible for the future repopulation of those habitats by the Common hamster and, therefore, presumably necessary for the restoration of a favourable conservation status for the species in Alsace generally. However, the measures required by Article 12(1)(d) relate only to the breeding sites and resting places of existing populations'. The Advocate General further stated that France is not required to implement stricter agricultural measures throughout the Common hamster's historical range.[203] However, the simple fact that the CJEU has chosen to explicitly assess the adequacy of the recovery measures seems to underline that restoration measures are to be deemed mandatory in a context of imminent extinction.[204] In view of the final outcome of the French hamster case, the Flemish Government was right to contemplate reintroduction efforts in the context of its future conservation plans. Regardless of her ambivalent stance as to habitat restoration measures within the framework of Article 12(1)(d) of the Habitats Directive, Advocate General Kokott also underlined in her Opinion in the French hamster case that '(…) if, as in the present case, the populations of the species are so small that they may die out because of natural fluctuations in numbers, an effective system of protection must aim to achieve a sufficient increase in stocks', thereby underlining the recovery imperative of the Habitats Directive.[205]

Instead of opting for a mere conservative-textual approach of Article 12(1) of the Habitats Directive when drafting its conservation plans, the Flemish government clearly chose to go beyond mere prevention and aim at a combination of captive breeding/restocking and habitat restoration measures. This was indeed the only viable option to do, both from an ecological and from a legal point of view.[206] Research indicates that, at present, the Common hamster is not capable of 'maintaining itself', as required by Article 1(i) of the Habitats Directive, and thus robust recovery actions are required to overcome this bottleneck.[207]

As such, the restoration of 125 hectares of hamster-friendly habitats in one hamster core area (*Wildooie-Tongeren*) constitutes one of the main pillars of the Flemish hamster protection program. In order to further guarantee the adequacy of the hamster habitats, the Flemish hamster protection program also explicitly lays down a myriad habitat quality requirements that need to be observed when implementing the restoration measures. This means, among other things, that the hamster-friendly fields need to be closely connected in order to avoid further fragmentation. In addition, it is to be ensured that cereals are cultivated on 50% of the fields. No early harvest is allowed on the lands included in the habitat management plans.[208] However,

[202] *IUCN/Species Survival Commission, supra* note 27, p. 1.
[203] Opinion Advocate General Kokott, *supra* note 72, para. 69.
[204] *Schoukens*, *supra* note 74, pp. 357–359.
[205] Opinion Advocate General Kokott, *supra* note 72, para. 84.
[206] See for instance: *La Haye, Verbist & Koelewijn*, *supra* note 42, pp. 163–166; *O' Brien*, *supra* note 6, pp. 92–93.
[207] Ibid.
[208] Flemish hamster protection program, *supra* note 28, pp. 28–29.

while the presence of a sufficient surface area of hamster-friendly habitat is deemed vital for any recovery effort to succeed, the relatively low population numbers render it very unlikely that a full natural recovery of the species will allow the Common hamster to reach favourable conservation status. Therefore, the Flemish hamster protection program explicitly envisages supplementation and reintroduction efforts, aimed at the further recovery of the last remaining population of Common hamsters in *Wildooie-Tongeren*. Implementing earlier scientific findings,[209] the reintroduction efforts will only be made when 50 hectares of hamster-friendly habitats have been restored.[210] On a yearly basis, 80 hamsters will be have to be released in the hamster zone in *Wildooie-Tongeren*. These reintroductions have to be maintained during three consecutive years. In order to underpin the reintroduction efforts, hamsters will be taken from the existing Dutch breeding program or, as the case may be, a Flemish breeding program will have to be set up.[211]

It must be applauded that the Flemish hamster protection program requires the reintroduction measures to take into consideration the objective of restoring the genetic health of the hamster populations, which have suffered a strong decline in the past decades.[212] The Flemish hamster protection program also requires continuous monitoring in order to assess the effectiveness of the recovery measures and the suitability of the hamster habitats.[213] The position of the hamster coordinator, who is to further streamline the communication with the relevant stakeholders and oversee the concrete implementation of all measures included in the protection program, is crucial for achieving a more collaborative approach. The coordinator is to ensure the continuous monitoring of the recovery measures put forward by the Flemish hamster protection program.[214] Earlier Dutch practices had already underlined the importance of the position of a hamster coordinator for the effectiveness of the conservation efforts.[215]

In my opinion, all the above-mentioned measures, while far-reaching at first sight, are nonetheless mandatory under Article 12(1) of the Habitats Directive. Most interestingly, they are also in line with the 2013 IUCN *Guidelines for Reintroductions and Other Conservation Translocations*. For instance, the very fact that prior to the reintroduction a sufficiently large surface of hamster-friendly habitats is to be restored pursuant to the Flemish hamster protection program further implements the recommendations as to the feasibility and design of reintroduction efforts. In the IUCN Guidelines, it is further stressed that 'it is essential to evaluate the current suitability of habitat in any proposed destination area'.[216] They equally underscore the importance of post-release monitoring and continuing (adaptive) management.[217] Likewise, the IUCN Guidelines underline that 'while the ultimate aim of any conservation translocation is to secure a conservation benefit, this benefit may need long-term or permanent management support to persist'.[218] Even so, in view of modest habitat restoration targets that are included in the Flemish hamster protection program, one might still question whether the 'release area' is

[209] *Neumann et al., supra* note 39, p. 191.
[210] Flemish hamster protection program, *supra* note 28, p. 29.
[211] Ibid, p. 51.
[212] *La Haye et al., supra* note 46.
[213] Flemish hamster protection program, *supra* note 28, pp. 37–38.
[214] Ibid, p. 45.
[215] *European Economic Interest Group et al., supra* note 163, pp. 84–85.
[216] *IUCN/Species Survival Commission, supra note* 27, p. 13.
[217] Ibid, pp. 27–28.
[218] Ibid.

large enough to support the stated population targets, as is also recommended by the IUCN Guidelines.[219]

In spite of the underperformance of voluntary protection scheme in preserving Common hamsters throughout the past decades, agri-environment schemes are still put forward as the primary tool to further implement the habitat restoration measures in the Flemish hamster protection program. In order to upgrade the effectiveness of the voluntary schemes, a two-tiered approach is set out in the Flemish hamster protection program. In a first phase, the existing agri-environment schemes will be reviewed in order to allow a swift implementation of the hamster protection program during the first three years. In a second stage, new innovative management strategies are to be set up in order to further implement the protection program. This next generation of contracts can be inspired by good practices from abroad, such as the new generation of Dutch agri-environment contracts that offered the enrolled farmers the flexibility to rotate the hamster-friendly measures.[220]

Arguably, the array of recovery measures envisaged for the Common hamster is unprecedented within the context of Flemish nature conservation policy. By some measures, the Flemish hamster protection program indeed represents the most ambitious recovery effort ever contemplated within the Flemish Region. However, the exclusive focus on translocation and reintroduction efforts should not hide the immense challenges that lie ahead. Given the past failures in implementing attractive agri-environment schemes for farmers, the rather lenient time scheme included in the Flemish hamster protection program entails the risk that the remaining hamsters will have disappeared by the time the next generation of more effective agri-environment schemes for hamster-friendly management will come into force. This danger is further heightened by the modest population targets, which make it unlikely that the species will be able to 'maintain itself' any time soon, as required by Article 1(i) of the Habitats Directive. The simple fact that it took a staggering one and a half year to appoint a hamster coordinator can be seen as a further illustration of the persisting lack of urgency that prevails in this respect.

Lastly, one might wonder why, in sharp contrast to the recently adopted French conservation plans, no additional attention has been paid to further measures aimed at the protection of the few remaining burrows still present in the hamster zone. Admittedly, the conventional view holds that mere protective measures are unsuitable when hoping to recover a species on the threshold of extinction. Even so, as demonstrated by the French hamster case, France was required under Article 12(1) of the Habitats Directive to enact stricter planning rules in order to assess the impact of new spatial developments in hamster repopulation areas. No such measures are put forward by the Flemish hamster protection program. Hence, rather ironically, the Flemish hamster protection program seems to be deficient in terms of offering further protection against seminal future threats. Granted, the generic protection rules, as included in the Flemish Species Protection Regulation, are apt to avoid further losses for the remaining Common hamsters. Yet even assuming a stricter enforcement of these protection rules in future planning procedures, it still remains uncertain whether the said measures are effectively capable of protecting future repopulation areas, if necessary. This could for instance help safeguard the second hamster zone in *Leuven-Bertem*, which will be subject to further habitat restoration measures from 2020 onwards.

As the Flemish Region is one of the most ur-

[219] Ibid, p. 13.
[220] *La Haye et al.*, *supra* note 133.

banized regions of Western Europe, additional protection measures to preserve future repopulation areas might not be deemed superfluous, even if it is not as such required by Article 12(1)(d) of the Habitats Directive. Furthermore, the proactive creation of migration corridors is crucial to recreate viable pockets of hamster populations, especially in a context of isolated populations that are present in sub-optimal habitats.[221] Ultimately, it can be maintained that is very unlikely that the Flemish approach probably will safeguard a patchwork of sufficiently interconnected hamster populations by 2020 or even 2025.

5.3 The non-binding nature of recovery measures: opting for a more reconciliatory approach?

As alluded to above, the Flemish government was of the opinion that the creation of strictly managed hamster areas constituted an essential part of a workable recovery strategy when drafting up the first generation of hamster conservation plans back in the 2000s.[222] Even so, the recently adopted hamster protection program does not put forward the creation of so-called 'hamster reserves', which are subject to strict protection and hamster friendly-management measures. Rather, it almost exclusively relies on agri-environment contracts and covenants, which are expected to foster hamster-friendly measures. This finding should not be surprising in itself, since the designation of protected sites (Natura 2000) is merely imperative for species that are included in Annex II to the Habitats Directive. By contrast, the Common hamster is listed in Annex IV, which means that it is subject to 'horizontal' protection rules, that are applicable throughout the whole territory of a EU Member States.

Evidently, resorting to voluntary measures in the farmland nature might be an attractive policy option. Given the fact that the presence of the Common hamsters is almost exclusively limited to agricultural lands, the importance of bolstering sufficient support amongst farmers is undisputed. Reconciliatory instruments, such as agri-environment schemes, can help in solidifying the support for hamster conservation amongst the stakeholders. Yet in view of the earlier criticism of the European Commission in this respect, the question still remains whether, legally speaking, a EU Member State is allowed to confine recovery efforts vis-à-vis protected species to voluntary agreements aimed at fostering the implementation of hamster-friendly crops and agricultural practices when the said species finds itself on the brink of extinction.

As such, national practices have demonstrated that, for instance, agri-environment contracts for hamsters could be effective in some instances, especially when strictly monitored and re-evaluated, sufficiently funded and provided that they do not given rise to an unnecessary administrative burden.[223] Indeed, in some cases, a more balanced facilitative approach, encompassing a carrot-and-stick approach, might give rise to better results in the field than a rigid enforcement policy since it allows to manufacture consent on the recovery measures needed. And, in the specific context of the Flemish hamster protection program, flexible management is put forward by recent research as an effective tool to achieve further successes in species recovery.[224]

Going back to the specific context of the Flemish hamster protection program, it is evident

[221] *Neumann et al.*, *supra* note 39, p. 191.
[222] *De Wielewaal & Natuurvereniging v.z.w.*, *supra* note 141, p. 34.
[223] *La Haye et al.*, *supra* note 133.
[224] Flemish hamster protection program, *supra* note 28, p. 37.

that the hamster coordinator will play a crucial role in fostering enthusiasm amongst farmers to get enrolled in the agri-environment contracts. Yet although successful in some instances, recent studies challenge the long-term beneficial effects that are yielded by agri-environment schemes.[225] In the scientific literature, it has been concluded that participation in agri-environment schemes is not 'simply a matter of weighing the money against the effort for adaptation'[226]. As illustrated by previous experiences with hamster-friendly agri-environment schemes in the Netherlands and France, it remains particularly difficult to convince farmers to sign up for such measures, especially when they are accompanied by a set of complicated restrictions.[227] For instance, in the course of the first Dutch hamster conservation plan, which relied intensively on agri-environment schemes, only three farmers decided to participate. The Dutch example also aptly revealed that sufficient and enduring financial compensation needs to be provided in order to ensure that the contractual measures are attractive enough and that a continued commitment can be expected from the farmers.

Most importantly though, and in sharp contrast to the Flemish approach, both the Dutch and French conservation plans do not exclusively rely on measures of a voluntary nature. For instance, in the context of the recent Dutch conservation plans, strictly managed 'hamster reserves' are established through land acquisitions.[228] In the Netherlands, the aim is to acquire at least 200 hectares of strictly managed hamster reserves in the coming years. These areas are no longer subject to contractual measures, but are managed by nature conservation organisations in order to establish sustainable hamster core areas, around which more flexible tools, such as contractual measures, can be further implemented. And while voluntary measures should probably remain the primary focus of the Dutch hamster conservation measures, the presence of permanently protected hamster habitats might serve as a useful fallback-option, alongside with the Common hamsters that are kept in captivity, whenever the contractual measures fall short of protecting the remaining populations.

In light of the earlier criticism of the European Commission on the exclusive voluntary nature of the previous Flemish conservation efforts between 2000 and 2007, the continued reliance thereon might ultimately backfire for the Flemish government. For, if the voluntary measures fail, no other tools are available to avoid imminent extinction. Admittedly, EU Member States do enjoy some margin when establishing conservation measures for threatened Annex IV species. However, this leeway is considerably limited whenever the species find itself in an unfavourable conservation status, such as is the case for the Common hamster. In addition, the Commission indicated in its 2007 Guidance on Strict Species Protection that, while EU Member States could ensure compliance with respect to potentially harmful agricultural practices through guidance and codes of conducts, 'such approaches and tools complement rather than replace formal legal protection, *i.e.* if these tools (e.g. codes of conduct, best practices) are ignored, there must be legal procedures in place in order to ensure an effective system of strict protection for animal

[225] *N. Reid, R.A. McDonald & W.I. Montgomery*, Mammals and agri-environment schemes, J. Appl. Ecol. 2007, 44, pp. 1200–1208.

[226] *A. Van Herzele, A. Gobin, P. Van Gossum, L. Acosta, T. Waas, N. Dendoncker & B. Henry de Frahan*, Effort for money? Farmers' rationale for participation in agri-environment measures with different implementation complexity?, Journal of Environmental Management, 2013, 131, pp. 110–120.

[227] *La Haye et al.*, *supra* note 133; *O' Brien*, *supra* note 6, pp. 92–93.

[228] *Provincie Limburg*, *supra* note 163.

species'.[229] In its previous case-law, the CJEU has also underscored that EU Member States cannot suffice simply by exclusively relying on voluntary measures in order to comply with their conservation duties under the Habitats Directive.[230]

In other words, if implemented within a wider conservation approach, agri-environment measures are expected to play a vital role in the path to recovery of the Common hamster. Yet it needs to be guaranteed that these agri-environment measures are effective and adequate. For instance, in the French hamster case, the CJEU noted that the objective of 22% crops favourable to the Common hamster, which had to be achieved through agri-environment measures, had been achieved in only one of the three priority action areas. Accordingly, by failing to lay down strictly protected 'hamster reserves' as a key tool to ensure resilient hamster populations, the Flemish Region risks facing new infringement proceedings if it can be established that the contractual measures do not give rise to positive results in a short time frame. It can thus be concluded that, legally speaking, a more cautious approach would have consisted in permanently acquiring land in hamster core areas for hamster protection in the short term, supplemented by the implementation of contractual measures on the surrounding agricultural lands.

5.4 Economic and social considerations: a lost cause or well-spent money?

As indicated, the Flemish government allocated 623,500 EUR to the implementation of the recently adopted hamster species protection program.[231] These numbers appear impressive on paper. However, the available money stands in sharp contrast to the funds that have been allocated to the survival of the Common hamster in the French Alsace (around 10.3 million EUR) and the Netherlands (more than 1 million EUR had been allocated to hamster research by the year 2011).[232] Regardless of the exact amount of money spent of the survival of the Common hamster, some critics might wonder whether such amounts of money for species on the brink of extinction are justifiable in times of budgetary austerity.[233] For instance, at several points throughout the Flemish hamster protection program, it is stressed that budgetary restrictions must be taken into account when further implementing the purported restoration measures.[234]

The gradual approach underpinning the intermediate population targets is also illustrative of this point. Some might contend that this more pragmatic stance is understandable in view of the important challenges that needed to be tackled. For one, saving the species in the short run might be more important than coming forward with over-ambitious population targets that are deemed to be unrealistic given the exclusive presence of the species on agricultural lands. Such approach might also be reasonable in view of the significant budgetary impact of the latter policy option. Moreover, making political compromises always requires some leeway and discretion, which are needed to appease conflicting interests. This might in part help to explain why the Flemish Government did not deem it necessary to develop a more robust recovery strategy,

[229] Guidance on Strict Species Protection, *supra* note 50 p. 31.
[230] See, by analogy: Case C-96/98, Commission v France [1999] ECR I-8531, para. 26–27.
[231] See: http://www.vilt.be/623500-euro-voor-redden-van-wilde-hamster (Accessed 10 February 2017).
[232] *O' Brien*, *supra* note 6, pp. 91–92; Korenwolf blijft zorgenkind, Trouw, 10 mei 2011, https://www.trouw.nl/groen/korenwolf-blijft-zorgenkindje~ad4a93f2/ (Accessed 10 February 2017).
[233] See more extensively on the costs linked to conserving Common hamsters: *Eppink & Wätzold*, *supra* note 2, p. 802–808.
[234] See for instance: Flemish hamster protection program, *supra* note 28, p. 22 and 47.

aimed at the creation of a patchwork of subpopulations in the range still populated by Common hamsters at the time of the entry into force of the Habitats Directive in Belgium. Whereas the latter approach would arguably make more sense in terms of ecological sustainability, it would require the launch of an expensive acquisition program and the payment of even bigger amount of subsidies for hamster-friendly management.

As to the socio-economic impact of recovery schemes, reference is to be made to Article 2(3) of the Habitats Directive, which states that measures taken pursuant to the Habitats Directive are to take economic, social and cultural requirements into account, as well as local characteristics. Evidently, these considerations need to be taken into account when drawing up hamster conservation plans. However, it should be noted that social and economic interests may not undermine the aim of achieving a favourable conservation status for Annex IV species. Since the room for derogation is explicitly defined in Article 16(1) of the Habitats Directive, it must be held that mere generic economic considerations can therefore not justify a lack of adequate protective and recovery measures on the part of the EU Member States.[235] In contrast to other EU environmental directives, such as the Water Framework Directive[236], the Habitats Directive does not include a concrete timeframe for the achievement of the recovery objectives.[237]

Evidently, the lack of a clear-cut deadline in the Habitats Directive as to achieving the favourable conservation status grants some additional leeway to the EU Member States. However, in a recent 2016 ruling concerning the non-deterioration obligation referred to in Article 6(2) of the Habitats Directive, the CJEU ruled that '(s)o far as concerns the economic cost of the steps that may be considered in the review of alternatives, including the demolition of the works already completed, as relied on by the referring court, it must be stated, as the Advocate General states in point 70 of her Opinion, that that is not of equal importance to the objective of conserving natural habitats and wild fauna and flora pursued by the Habitats Directive'.[238] *A fortiori*, EU Member States should therefore not be allowed to invoke economic concerns as a justification for poorly drafted and potentially ineffective recovery programs, especially in situations where the restoration challenge is partly the result of earlier non-compliance with the applicable protection rules. Returning now to the Flemish hamster protection program, it can be argued that, while aiming for hundreds of individuals in short time frames might perhaps constitute a sensible strategy in order to foster wider acceptance of the conservation efforts amongst farmers in the long run, such socio-economic consideration must not undermine the ecological viability of the program. The recently adopted hamster conservation plans in the surrounding EU Member States illustrate that setting higher population targets is not to be deemed unreasonable or unattainable, even when taking into account the interests of the different stakeholders, in order to ensure the long-term viability of the species. If France explicitly aimed for the restoration of three hamster zones with 1 500 individuals and the Netherlands aim to re-establish core areas consisting of 300 hectares

[235] Opinion Advocate General Kokott, *supra* note 72, para. 85.

[236] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy [2000] OJ L 327, p. 1 (further referred to as 'Water Framework Directive').

[237] See for instance Article 4(1)(a)(i) of the Water Framework Directive. See more extensively: *H. Josefsson*, Ecological Status as a Legal Construct – Determining its Legal and Ecological Meaning, Journal of Environmental Law, 2015, pp. 231–258.

[238] Grüne Liga Sachsen eV, *supra* note 87, para. 77.

or more of hamster-friendly habitat, then why not apply the same ambition level in the Flemish Region?

6. Conclusion: an expensive requiem for the Common hamster?

As the number of species becoming extinct on our planet continues to increase, ecological restoration has gained traction as one of the most promising instruments among lawmakers, scientists and politicians. The paradigm is increasingly shifting from an exclusive focus on conserving the status quo to prompting more encompassing recovery measures for threatened species and, more broadly speaking, ecosystems. The sheer size of this conservation challenge, which is sometimes referred to as a 'sixth mass extinction wave'[239], requires continuous and ambitious investment in order to be successful. And since investing money in saving species is still not a political top-priority – not even for charismatic species like the Brown bear – some now advocate the prioritisation of species in view of the multiple challenges that have to be faced. This approach, which is often tagged 'ecological triage', implies that, since there are limitations to resources such as time, money and manpower, it is important to prioritize specific efforts and distribute resources efficiently.[240]

The plight of the Common hamster in Western Europe, which has been extensively studied in this article within the specific context of the Flemish Region, aptly illustrates the many hurdles and complexities faced when trying to implement effective recovery measures on the ground. Instead of treating the wild hamster as a flagship species for the fast-disappearing farmland nature across the countryside, the main policy response consisted of drafting ambivalent conservation strategies. The slow and inconsistent response of the Flemish Government in implementing further measures to conserve and protect the declining populations in the past decades has only exacerbated the ongoing negative trend. As starkly illustrated by the outcome of the recent REFIT Check of the Habitats and Birds Directives[241], such a conclusion is by no means exceptional within the EU. Even more so, the continuous non-compliance has jeopardised the conservation status of the Common hamster and turned its survival into a unnecessary costly affair, prone to create additional frustration among farmers and project developers. The delays associated with the implementation of half-hearted conservation plans and the absence of effective enforcement have now rendered the rodent species dependent on the implementation of active breeding programs and reintroduction efforts for its long-term survival. This implies that also sites where hamsters are currently not present but which harbor potential habitat will need to be subjected to stricter rules. In spite of the aspi-

[239] *A.D. Barnosky et al.*, Has the Earth's sixth mass extinction already arrived?, Nature, 2011, 471, pp. 51–58.

[240] See more extensively: *E. McDonald-Madden*, *P.W.J. Baxter* & *H.P. Possingham*, Making robust decisions for conservation with restricted money and knowledge, Journal of Applied Ecology, 2008, pp. 1630–1638.

[241] The European Commission concluded, among other things, that 'full achievement of the objectives of the Nature Directives will depend on substantial improvement in their implementation in close partnership with local authorities and different stakeholders in the EU Member States to deliver practical results on the ground for nature, people and the economy in the EU'. See also: European Commission, Commission Staff Working Document – Fitness Check of the EU Nature Legislation (Birds and Habitats Directive), SWD(2016) 4725 final, available at: http://ec.europa.eu/environment/nature/legislation/fitness_check/index_en.htm (Accessed 10 February 2017). A similar conclusion also arises from the 2017 Special Report of Auditors on the implementation of the Natura 2000 Network. See: European Court of Auditors, Special Report: More efforts needed to implement the Natura 2000 Network to its full potential, 2017, http://www.eurosai.org/en/databases/audits/More-efforts-needed-to-implement-the-Natura-2000-network-to-its-full-potential/ (Accessed 10 February 2017).

rational recovery pledges, the continuous underfunding and the previous implementation deficiencies surrounding the first conservation plans have made the Common hamster a 'no-hoper', whose extinction appears inevitable due to the change in agricultural practices.

The recently adopted Flemish hamster protection program encompasses reintroduction efforts and habitat restoration measures, and therefore is to be regarded as a topnotch example of the recovery approach in the context of the Habitats Directive. To some extent, it can be tagged as a progressive implementation of recovery-based conservation planning based upon a comprehensive scientific understanding of the species' main threats. However, a detailed analysis resulted in a more mixed picture. While ostensibly progressive and science-based, the population targets and acreage of hamster-friendly habitats appear to be insufficient in order to create viable populations. The combination of the modest population goals included in the Flemish protection program, which arguably can be presented as a more pragmatic approach toward species recovery, and the further delays when implementing the actions, might ultimately turn it into yet another stark illustration of an underperforming species conservation plan. The additional fact that it almost exclusively relies on contractual measures, while understandable to some extent, makes it vulnerable from a legal point of view, especially if the modest populations goals are not achieved.

Ultimately, this article serves as a stark reminder that, unless taken seriously, the recovery rationale will not yield long-term successes. Evidently, reversing the current biodiversity crisis will require more than focusing exclusively on the recovery of highly endangered species, such as the Common hamster. Yet at the same time such species can function as keystone species for broadly formulated restoration efforts across the countryside. In order to avoid that more money is wasted on futile yet expensive restoration actions, recovery programs for such highly endangered species should include, if necessary, comprehensive recovery and robust habitat restoration measures, and be directed at the realisation of population levels that go beyond the MVPs while taking into account the genetic health of the remaining populations and the species' habitat requirements. Against this backdrop, adaptive management, improved stakeholders awareness and robust communication strategies, aimed at the relevant stakeholders whose participation is crucial for the success of the recovery actions, are to warrant the continuous performance of such programs.

In view of the clear-cut recovery rationale that is prevalent in EU nature conservation law, national judges should therefore no longer defer from reviewing deficient recovery plans in light of the substantive criteria set forward by the Habitats Directive. For flawed conservation plans could, paradoxically, merely serve as an expensive *requiem* for declining species. This is not only deplorable from the perspective of the said species, but might eventually diminish the much needed support among the wider public for future recovery efforts for other endangered species.