The EU Water Framework Directive Article 4.7 application in Hydropower Projects – Comparative perspectives from Finland, Scotland and Austria

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Abstract

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Title

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Abstract

Increasing awareness among European citizens to tackle climate change have given mandate for the European Union (EU) to set stringent climate objectives towards 2030 and beyond. Due its role as one of the largest sources of renewables, hydropower plays significant role in the arduous exercise to ramp up sustainable energy production in EU Energy market. In order to increase hydro power capacity further and to tackle respectively environmental implications, such as biodiversity losses in sites, EU has called for efficient balance striking between environmental and climate protection regimes in installations development.

To balance public interest in certain societally important functions, such as energy production, Article 4.7 of the EU Water Framework Directive (the WFD) set out a provision, deviation from the Directive's environmental objectives (achievement of good status and deterioration prevention in all water bodies) can be accepted on the grounds of a significant new project, if a proposed development meets clause's substantive preconditions. However, normative status of Article 4 has evoked discussion since the early days of the Directive. At time the Directive was transposed into Finnish law, it was primarily considered as weakly binding planning instrument, respectively to prevailing discussion in legal literature of the time.

Question of exemption clauses application came into limelight in Finland after The Court of Justice of the European Union ruled on two landmark cases (C-461/13 and C-346/14); the WFD environmental objectives constitute legally binding requirements towards the Member States yet withholding on them broad discretion competence in substantive condition consideration in individual projects authorization level. Furthermore, Finnish Prime Minister's Office's report concluded in May 2018, river basin management regulation shall be revised since Finland did not reach the good status objective by Directive's deadline in 2015.

Finland has not applied the exemption provision at the time of writing, and previous research has indicated multiple pitfalls in both; clause's procedural and substantive regulation, which prevent enactments effective application. The thesis indicates and assess possible developing points in Finnish water management regulation as well as seeks reference from the two EU jurisdictions; Scotland and Austria, which have existing cases of Article 4.7 application in hydro power projects. The present study's objective is to address, how public interests can be balanced by legal means in hydro power project, while pursuing EU water policy and sustainable energy production.

The thesis seeks to offer several recommendations for the future development of Finnish river basin management regulation.

Key words

Water Law, Water Framework Directive, Hydro Power, Article 4.7, Exemption Clause, Water Resources Management, Climate Change, Comparative Law, Finland, Austria, Scotland

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ABBREVIATIONS

CJEU	Court of Justice of the European Union
DG	Director General
EC	European Community
EEC	European Economic Community
EU	European Union
HMWB	Heavily Modified Water Body
MS	Member States
POM	Programme of Measures
RBD	River Basin District
RBM	River Basin Management
RBMP	River Basin Management Plan
RES	Renewable Energy Sources
TEC	Treaty Establishing the European Community
TEU	Treaty of European Union
TFEU	Treaty of Functioning of European Union
WFD	Water Framework Directive

1. INTRODUCTION

In March 2000 step into force 'The Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy (hereinafter also 'the WFD'),[1] which committed the Member States ('MS') to achieve good status and prevent derogation of status in European waters by 2015.[2] The objective in water policy renovation was to integrate holistically all aspects of water environment conservation in the European Union ('EU').[3] Simultaneously, increasing awareness within the European citizens to tackle multifold environmental issues have given the mandate for the EU to stipulate increasingly tightening climate objectives towards 2030 and beyond.[4-5] In the ambitious exercise to meet the climate targets, hydropower ('HP') plays significant role due its tremendous contribution on renewable energy production.[6]

On the first sight the two objectives; water resources sustainable management and climate change mitigation, seem parallel. However, the discussion concerning hydropower often culminates on a question, whether the share of it should rather be increased - or if not reduced - at least refrain from new projects.[7] This is due hydropower production's two fold position as a mean to tackle CO^2 emissions and energy security concerns, and in contrast, as an alter for water nature habitats and biodiversity.[8] The possible conflicting interest were aimed to

[1] The thesis was developed in collaboration with Fortum Generation Hydro, Environment -department, to whom side I convey my sincere gratitude; 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 (Directive 2000/60/EC).
[2] *The WFD* Article 4(i) and (ii).
[3] *The WFD* preamble (18).
[4] Future Challenges in Environmental Policy in the EU see: *Adelle - Jordan* 2012, part. 4; About European environmental policy, see: *Kingston* 2013.
[5] See example Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.
[6] *Eurostat* 2018, Renewable Energy Statistics.
[7] See e.g. *Abazaj - Moen - Ruud* 2016, p. 409-410.
[8] *Abazaj - Moen - Ruud*, p. 409-410.

address in the WFD drafting process by incorporating within Article 4.3 and 4.7 clauses, which allows to deviate or adjust the water body specific environmental objectives under certain circumstances. The thesis will discuss of this interface by addressing, how the MS have applied the exemption clause and weight different public interests in HP projects authorization procedure. Particular attention will be paid, how clauses substantive conditions, including climate and environmental impacts, are considered by the competent authorities in the MS.

The subject is topical to address in two senses. First, The Court of Justice of the European Union (hereafter also 'the CJEU' or 'the Court') has recently ruled on two landmark cases, regarding the WFD implementation and interest comparison in environmental objectives achievement. To elaborate, the Court held in the case C-461/13 (*Weser-case*)[9] in 2015; the WFD set legally binding water quality objectives towards the Member States, followed with the 2016 *Schwarze Sulm*-judgement; where the Court's line was, the EU Member States are entitled to exercise discretion in relatively wide sense in exemption preconditions consideration.[10] Being so, the decisions set bidirectional requirements towards the competent authorities in the MS; on the other hand obligation to reject authorization from projects, which may compromise the environmental objectives the WFD set forth, and on the other, according to the Court circumstances which may trigger the clause are manifold. The decisions deviate from the line Finland has followed in the Directive's interpretation, as at the time of stipulation the environmental objectives were considered non-binding.

Second key point is, at the time of writing very recently published Finnish Prime Minister's Office report "Exemptions to the Environmental Objectives in River Basin Management" concluded, in Finland there is a need to revise the river basin management regulation; first, due the Weser-case, and secondly, since Finland did not reach the good status objective by Directive's deadline in 2015.[11] On the report the working group paid attention on 'the Act on the Organisation of River Basin Management and the Marine' ('the RBM Act') section 23, which transposes the exemption clause in Finnish law.[12] Two key conclusions the group pointed out regarding the exemption were; wording of good ecological status (GES) and -

[9] C-461/13 Weser-case (2015) ECR.
[10] C-346/14 Schwarze Sulm (2016) ECR; See *Belinskij - Soininen* 2017, p. 113-114.
[11] *Prime Minister's Office* 2018, p. II.
[12] *Prime Minister's Office* 2018, p. 20-30.

potential (GEP), as well as interest comparison mechanism are partially unclear and shall be revised. This is, as the group concluded, the revision would set the enact better in line with the formatting of the Directive, and it would enable substantive conditions consideration more comprehensively in exemption consideration.[13]

1.1 Methodology and Outline of the Thesis

In the thesis is used legal dogmatic, regulatory theory and comparative law methodology. The purpose is at first to systemize and interpret exemption clauses 4.7 (from hereafter also 'the exemption clause') under Finnish law, in order to identify possible aspects for comparative law analyze. Austria and Scotland were selected as references jurisdictions, due their in-place regulation, existing legal praxis concerning the exemption clauses application, as well as because national significance of HP sector. Prior the thesis writing process conducted literature study indicated, many Member States either have not applied the exemption yet, or the sectoral regulation concerning the provision is not sufficiently established for comparison purposes.[14] By choosing countries where status of HP has been traditionally robust, enabled to access on well-developed sectoral regulation to ensure good analyze prerequisites.

The topic is addressed from both, procedural and substantive law point of view. However, special emphasis is given to interest comparison provision, to assess possible regulative means to increase integration between the environmental and climate regimes in projects authorization. Despite the subject is addressed also from the EU law point of view, the scope of the thesis is on Finnish legislation, and community law is presented to set the topic in context.[15]

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[13] ibid. 31-32.

[14] See example COM (2012) *670c final*, p. 28; Norwegian Environment Agency 2018, p. 8. Norway has applied Article 4.7 on HP authorization. However, according the EU Commission and the competent national authority, in the exemption clause's application have been challenges with a lack of coherence. This is as differentiation of interpretation between decision-making bodies, environmental courts and river basin authorities. For this reason, the legislation is currently revised. Also, regarding the first RBMP cycle the Commission has noted, use and compliance of the WFD Article 4.7 was not demonstrated in the national river basin management documentation.

[15] Albeit the data consist chiefly of international sources, international law is not directly in the scope of the thesis. It follows, the thesis includes both, analyze of internal structures of law, as well as external comparison

1.1.1. Comparative Law

One definition for comparative law is, it examines comparative legal systems by aiming to set them on an equal footing to compare and obtain new information.[16] Comparative law tradition can be further divided in practical and theoretical school, of which the first mentioned the thesis represents.[17] This is as the thesis knowledge interest basis on practical objectives; the aim is to produce information and address possibilities to develop Finnish water resources management regulation in respect of the exemption clause. Assessment of foreign state's jurisdiction is not solely enough to make a study comparative; instead, it must encompass comparison between at least two legal systems. To carry out the comparison successfully, it is essential at first to identify relevant common denominators between the reference cases to structure and systemize the study.[18] In this case, reference points for comparison forms the two research questions, on which the comparison and subsequent analyze was built on:

1. How the exemption clause is applied, and substantive conditions are interpreted in HP permit consideration in Finland and the reference states? (Chapter 2-5)
2. How Finnish regulation concerning the exemption can be developed, in light of the case studies? (Chapter 6)

To put the study in context, first is presented the WFD, exemption clause and recent EU Court landmark cases to the extent relevant in EU law framework, followed by overview of Directive's implementation in Finland. In this juncture is aimed to determine possible pitfalls in the current exemption clause formatting, to analyze them further in the comparative chapters. The comparative section consists of de lege lata overview of the reference states river basin management regulation, and the case study of legal praxis regarding HP authorization. Finally, findings derived from the case study are brought together and compared on Finnish regulation, to present a brief de lege ferenda reflection regarding the RBM Act.

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of regulation between different jurisdictions. See *McConville – Wing Hong* 2007, p. 87-88. The authors note, often legal research has often intensely national orientation. Even comparative approach is often used as an extension of the study of national law.

[16] *Husa* 1998, p. 13.

[17] ibid. p. 35-37.

[18] *Husa* 1998, p. 13.

1.2 Objective

Objective of the thesis is to discuss means to apply efficiently the WFD exemption clause instrument throughout the Union, while taking appropriate account both, environmental and climate factors. This is important against the backdrop, EU aims eagerly to ramp up renewable energy production to tackle climate change, and according to the European Commission hydropower among other combustion-free power sources shall play increasing role in the future in order to reduce air pollutants. On the same breath noting, exemption from the WFD environmental objectives should not become a rule, despite derogation instrument's careful application is not incompatible with the Directive.[19]

The thesis thus addresses two regimes; namely, EU climate and environmental regulation, and their compatibility with each other's, through the environmental law flexible standards. It is good to note; these two regimes dialogue is interlinked on a wider discussion of weak integration on European environmental and climate policies. Despite the EU's environmental integration principle, as set forth in Article 6 of TEU;[20] previous research highlights, the climate issues are considered weakly in EU environmental policy and vice versa.[21]

1.3 Scope and Limitations

Austria is a federal state, meaning the regulation comprises of both - federal and provincial orders, of which the thesis address both. Scotland is part of the United Kingdom; however, the country has its own legislature and legal jurisdiction. The thesis excludes the UK law, and focuses on its national regulation.[22]

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[19] COM (2018) 330 final, p. 5; European Commission 2009, p. 10; ibid. 2014, p. 22.

[20] Article 6 of Treaty of the EU:" Environmental protection requirements must be integrated into the definition and implementation of the Community policies and activities referred to in Article 3, in particular with a view to promoting sustainable development.", Treaty establishing the European Community (Nice consolidated version), 7 February 1992, in force 1 November 1993, Official Journal C 325, 24/12/2002 P. 0033 - 0184. (The TEU).

[21] See example *Abazaj - Moen - Ruud* 2016, p. 409-410.

[22] See the Scottish and Austrian River Basin Management Plans; (Austria: National Water Management Plan Ordinance 2009; Scotland The RBMP 2009: and 2015.)

The topic is addressed from ex-ante control point of view. In other words, primarily in focus is regulation concerning projects authorization through environmental permits and related legal praxis. It shall be noted, authorities are obligated to take environmental objectives into consideration as laid down by the Directive in each phase of a project, of which the ex-ante control being just one part.[23] However, it is an author's opinion, ex-ante control measures forms the most significant part of projects environmental impact management, and therefore scope of the thesis is adjusted address first phases of projects.

Authorization is assessed concerning projects, which require new authorization due substantive changes on environmental impacts. These measures can be either completely new operations, or actualize in existing facilities, in case implications of activities are proposed to be changed *profoundly*.

Environmental permits are chosen as a main research subject on practical reasons. This is relevant to note, as the WFD environmental objectives can be seen to gain legal effect at least by two means; through the River Basin Management Plans and environmental permits.[24] Amongst the two schemes authorization is considered as one of the most detailed forms of environmental decision making, since projects impacts can be addressed in individual project level.[25] Moreover, the River Basin Management Plans are reviewed only in six-year periods (The WFD Article 13 paragraph 7). It follows, the most recent information can be often assumed to be available in hydro power permits - depending on the RBMP cycle.

[23] *Prime Minister's Office* 2018, p. 12.
[24] *Kauppila* 2016, p. 28
[25] *Kauppila* 2014, p. 50-51

2. THE WATER FRAMEWORK DIRECTIVE

2.1 River Basin Management in Finland

Water resources management measures in the WFD scheme actualize in *River Basins,* which is one of the key concepts the enact sets out. To operationalize the Directive, the Member States are obligated to determine water bodies lay within their national territory; group them into River Basin Districts (The RBM Act Section 3); and appoint competent authority to overview the Directive's provisions implementation in the District level (The RBM Act Section 4). Concerning river basins stretching on several states' territory, the MS shall establish international districts (The RBM Act Section 3). Finland is distinguished in eight River Basin Districts; out of which two are shared with boarder neighbors, Sweden and Norway. Moreover, Åland response independently on the Directive's implementation, and henceforth, it forms autonomous district.

To the WFD scheme in practice, the competent authorities shall set up *River Basin Management Plan* ('RBMP') and *Programme of Measure* ('POM') in individual district level (The RBM Act Section 11 and 12). The river basin management plan recapitulates taken measures and assessments as well as tracks environmental objectives achievement in individual district level (The RBM Act Section 11). Whereas the programmes of measures are part of the first mentioned management plan, which shall include an account of basic measures, taken according water protection legislation. If needed, beyond standards measures, in the programme shall be included additional measures in order to ensure district specific environmental objectives achievement (The RBM Act Section 12). In accordance with the RBM Act Section 17, The River Basin Management Plans are approved by the Council of State, and recapitalization of finalized plan are amended on regional programmes of measures.[26]

[26] *Kauppila J.* 2014, p. 68. Kauppila suggest, the RBMPs do not fundamentally constrain permitting authority's interpretation marginal in permit consideration, due overall character of them. Instead, he sees programmes of measures as an essential source of law to define further accuracy level of water status monitoring measures and status objectives. Moreover, Kauppila points out regardless programmes of measures are not included as a whole in the Council of Minister's approved RBMPs, are they still required to take into account in permitting under the RBM Act.

Finland did not establish new administrative bodies for the WFD implementation.[27] The RBM Act Section 4-5 provides, the Centers for Economic Development, Transport and the Environment (ELY Centers) are the competent authorities to guide and monitor the enforcement of the Act, and to prepare River Basin Management Plans and Programme of Measures. The Ministry of Environment assigns one of the ELY centers to act as a chief entity in river basin management plans preparation, and the preparation of it is conducted in cooperation with other relevant authorities. River basin management plans may cover administrative districts of several ELY Centers, and in these cases collaborative measures can be used to conduct management in appropriate means. In order to prepare the river basin management plans and coordinate operations pursuant to RBMPs within each Districts, the Ministry of Environment has appointed cooperation and steering groups (The RBM Act section 14).

The RBMPs can be seen to have independent legal effect in respect, the MS shall report them to the European Commission. The Ministry of the Environment publishes the approved RBMPs, and a copy of it shall be deliver to the Commission within three months from publishing (The WFD Art. 15). Under the obligations of the WFD, the river basin management plans shall be ready no later than nine years after the Directive entered into force (Art. 11 para. 7) and once implemented, they must be reviewed every six years (Art. 11 para. 8). Moreover, in respect of legal effect, in river basin management plans enclosed environmental objectives can be held as the most essential substantive content of it.[28] Setting normative water status requires classification of water bodies based on conducted ecological assessments. In this sense, classification scheme and ecological information behind it can be seen to have individual legal significance - especially between classes 'good' to 'moderate'.[29]

2.2 General objectives

In 1995 the EU council, parliament and Commission came into unanimous conclusion, Union's water policy and related legislation shall be reviewed and updated in over-arching

[27] *Government Proposal* 120/2004, p. 24-25.
[28] River basin management plans interpreting effect more broadly: *Kare, A.* 2015, p. 29-32, cf. *Kauppila J.* 2014, p. 68.
[29] *Kauppila, J. 2011, p. 18*; See *Joseffson – Baaner* 2011.

means to enhance environmental policy integration throughout EU sectoral policies.[30] The decision was followed with negotiation process, and after the framework for Community action in the field of water policy 2000/60/EY step into force in 22.12.2000. The process resulted the most ambitious environmental policy instrument in the history of EU so far; namely, the consensus in EU level at the time of stipulating was to establish a united framework for community's surface- and groundwater protection to prevent diffuse and point source pollution and to enhance overall level of water protection.[31]

The WFD was transposed into Finnish law primarily with the Act on the Organisation of River Basin Management (1299/2004) ('The RBM Act'). The general objective of the enactment is to protect, enhance and prevent further deterioration of aquatic ecosystems; and to promote water use by sustainable means (The WFD Article 1 subparagraph a-e, The RBM Act Section 1). By meeting the primary objectives, the purpose is simultaneously to contribute positively on sufficient *quantitative* and *qualitative* supply and protection of water in EU (The WFD Article 1 paragraph 2 subparagraph 1-4, The RBM Act Section 1).

Moreover, the directive set out two administrational targets; to streamline governance in terms of more closely integrated consideration of water resources management and environmental conservation issues in water related decision-making; and secondly, to introduce the principle of full cost recovery - the premise, consumers shall pay to the provider the price, which reflects full costs of water services, including environmental and resource costs of it (The WFD Article 9; The RBM Act Section 11; and the Water Services Act (11/2001) Section 18). Regardless the WFD is thus ultimately an environmental protection instrument, the legal effect of it straddles de facto in Finland on Water Act; certain Environmental Protection Act statutes; Land Use and Building Act; and several other enactments that address water resources management.[32]

2.2.1 Water bodies Classification and Characterization

Some of the essential concepts the Directive set forth differ from the ones, traditionally used in Finnish water law. In the WFD formatting, water resources management actualizes, and

[30] *European Commission* 2008; On past and present in European water resources management see; *Trottier – Slack*, p. 89-118.
[31] The Water Framework Directive, Article 1; *Voulvoulis - Arpon, Giakoumis* 2017, p. 359-364; *Hollo – Mehling – Taina*, p. 114-115.
[32] *Hollo* 2001, p. 38.

environmental objectives achievement is monitored on a *water body* level, which constitutes the basic unit for water resources management measures. Surface water bodies shall be characterized on coastal waters, rivers, lakes and artificial or heavily modified water bodies, and differentiated on types, based on local circumstances, such as location and catchment areas (The WFD Art. 2) The typology determines reference conditions, and accordingly adjusted monitoring requirements (The WFD Annex II, The RBM Act Section 7). The characterized water bodies are further classified, based primarily on biological quality elements, and ecological status is determined by reflecting the de facto status against type specific reference conditions (Annex V, The RBM Act Section 7-8).

Water status classification shall be determined according to the intensity of changes in water bodies caused by human activity, and in relation to reference conditions as set out in section 12 of the Council of State Decree (1040/2006) and in Annex 1 of the RBM Act. The surface water classification basis on ecological and chemical status, whichever is the worse. The surface water body classification is fivefold, from; high to poor, whereas the chemical status either meets the required objectives, or fails to comply with the environmental requirements ("good or worse than that"). Moreover, heavily modified and artificial surface water bodies are classified based on achievable ecological *potential* of them. Reference conditions for artificial and heavily modified water bodies are determined case by case taking into account the existing physical conditions [33] Heavily modified water body classification's relevance for HP sector is further discussed on following Chapter 2.2.2.

According the RBM Act 9 para. 1, the monitoring of surface must be arranged in a way, it delivers consistent and diverse overall picture of water status on monitored region. The water status monitoring consists of competent authorities, and economic operators obligatory environmental permit-based monitoring measures. Moreover, pursuant to the RBM Act section 9 paragraph 2, the supervision assigned to an economic operator under other legislation shall be taken into account, as appropriate, in drawing up the monitoring programme. For hydro power sector the above described measure's implementation constituted increased demand of resources, especially concerning water status monitoring

[33] More about Finnish approach on surface water bodies classification see: Environmental Administration Guidelines 3/2009.

and mitigative actions. This is, as transposition of the WFD has seen to imposed administrative burden due tightened permit terms towards actors in hydro power industry.[34]

2.2.2 Heavily Modified Water Bodies

In the WFD is used a term *water body* to refer on all types of surface waters. This is regardless some water formations have been due human intervention - sometimes over the course of centuries - modified to the extent, they cannot feasibly meet criteria of natural state of water. Concerning these cases, the directive constitutes a provision to classify a water formation as 'heavily modified water body' (HMWB) (Art. 2 para. 9). Furthermore, completely manmade waterbodies, such as navigation channels, can be classified as artificial water bodies under certain circumstances (Art. 2 para. 8). The rationale behind the special classification is, artificial- and heavily modified water bodies achievement of 'good status' by using the same criteria as for natural ones may be virtually infeasible. Therefore, accordingly adjusted objectives and measures enable simultaneously to pursue environmental goals, as well as maintain societally essential operations. Second, and perhaps even more weighting reason for the separate classification is, as the Commissions has stated; the national authorities shall be able to grant permission to continue water related activities with significant societal and economic benefits.[35]

To assist implementation of the common water policy, in collaboration with the Member States and The European Commission has issued guidance documents regarding several issues the Directive address.[36] The 'Common Implementation Strategy for the Water Framework Directive (2000/60/EC), Guidance document no 4' set out instruction concerning designation of both, HMWB and artificial ones.[37] According to the Implementation

[34] *Vuoristo* et al. 2010, p. 5.
[35] *CIS Guidance document n. 4* 2003, p. 12-16.
[36] By 19.12.2018 number of issued guidance were 36. The documents aim provide complementary information and further clarification by taking into account the latest experiences with the implementation of the WFD and case laws.; Concerning binding nature of the Guidance documents, Article 4.7. document set out:"However, the Member States are not legally required to follow the recommendations contained in them. It was developed in the frame of the WFD Common Implementation Strategy (CIS)3 12 process 2016-2018 and aims to provide complementary information and further clarification by taking into account the latest experiences with the implementation of the WFD and case laws related to Article 4(7).The document constitutes guidance and good practice. Member States are not legally required to follow the recommendations contained in it. Member States are, however, required to use methods and approaches compliant with the requirements of the WFD."
[37] Legal relevance of CIS Guidance documents: *Lee* 2009, p. 53-55; CIS Guidance document n. 4 (2003).

guidance, heavily modified water body shall be interfered by human activity, and to be substantively changed in character. The determinants of substantively change are morphological and hydrological quality elements. Interesting in evaluation process in respect of HP production is its relationship with river beds on downstream of dams, as if only one of the two required quality elements are interfered, the interpretation is less clear. This is due it is assumed, HP generation may cause hydrological changes that are of such an extent, they would lead on the situation that *de facto* equals the state of heavily modified water course. However, in principle a water body can be classified as heavily modified only if both type of alterations have occurred.[38]

2.3 Environmental objectives

The WFD legal basis is embedded on environmental protection mandate; namely, on TFEU Article 192 (1) (ex. Article 175(1) TEC).[39]. The RBM Act section 21 set out environmental objectives, which form an essential substantive core of the enactment. The section provides separated targets for surface- and ground waters, as well as for heavily modified and artificial classified water bodies, which shall respectively be determined on individual water body level. The section stipulates as follows:

> "1) The objective of the river basin management plan and programme of measures is that:
>
> > 1) the status of bodies of surface water and of groundwater does not deteriorate and their status is at least good;
> > 2) the status of artificial and heavily modified bodies of water referred to in section 22 below does not deteriorate and they achieve good ecological potential and their chemical status is good;
> > 3) bodies of surface water are protected, remediated and restored so as to enable the achievement of the status referred to in paragraph 1 or 2 by 2015 at the latest;
> > 4) bodies of groundwater are protected, remediated and restored and a balance is ensured between groundwater abstraction and the recharge of groundwater

[38] See *European Commission* 2003, p. 26-27; More specifically about HMWP classification's implications in hydro power plants: *Kampa – Hansen* 2004.

[39] The choice of legal basis is argued on the other hand to imply about the atmosphere at the time the Directive was negotiated; Commission was competent to apply qualified majority voting on adoption of the enact, whereas the natural resources governance basis (Article 192 para. 2) would had required unanimity from the Council in order to step into force. enact, whereas the natural resources governance basis (Article 192 para. 2) would had required unanimity from the Council in order to step into force.

> so as to enable the achievement of the status referred to in paragraph 1 by 2015 at the latest;
> 5) persistent and significant increases in the concentrations of substances that pollute bodies of groundwater are prevented.
>
> (2) The status of waters in an area designated for protection referred to in section 5(1)(4) above shall be at the level required by protection in 2015 at the latest […]."

In other words, concerning surface waters the objective is to; prevent deterioration, and protect, enhance and restore all bodies good ecological and chemical state by 2015. As heavily modified classified water bodies the target is to achieve *good ecological potential* and *good chemical status* at the latest 15 years from the date the Directive stepped into force.

The status classification shall be conducted in accordance with the Directive's Annex V, which set out the chief principles of it. In order to monitor proceeding, the MS's shall establish water body specific reference conditions, which reflect the water body on its 'natural state' (The WFD Annex II).[40]

2.3.1 Normative status of the WFD Article 4

Article 4 of the Water Framework Directive positions on the heart of EU water policy the aim, the Member States shall prevent deterioration of ground and surface water bodies, in order to achieve "good ecological status/potential", in all water bodies, excluding the ones which the objectives are lifted though the exemption provision. As can be noted, the targets are ambitious, and consequently they have evoked discussion concerning substantive requirements since the early days of the Directive.[41] To elaborate, the discussion crystallizes largely around normativeness of the conditions pursuant to Article 4(1). On one hand, academic commentators and eligible experts have presented arguments supporting the view, the MS are obligated to *try* and *best preserve* the Water policy interest, whereas the other view is, the quality norms constitute legally binding obligation to actually achieve the normative state in water bodies.[42]

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[40] *Hollo* 2002, p. 47; *Josefsson – Baaner* 2013, p. 467. The WFD has gained critique concerning ecological paradigms of this objective. This is, as it has seen to use uncultivated 'ideal' natural water resources as reference values, despite European waters have been subject of a change over the course of centuries, and achievement of the objective has seen thus to be mainly theoretical by nature.
[41] *Pollard – Huxham* 1998, p. 773-792. See *Howarth* 1999, p. 16-18, 20-21; *Howarth* 2006, p. 20-12.
[42] *Paloniitty – Belinskij* 2015, p. 281.

The normative ‘frames’ of good status are not clearly defined on formatting of the RBM Act section 21. In principle, the prohibited dimension of diminution is apparent, but only after the Weser -case was drawn line between 'allowed' and 'prohibited' derogation. Thus, at time the Directive was transposed into Finnish law, it was primarily considered as planning instrument with weakly binding provisions.[43] In the RBM Act preparation material was inter alia pointed out, the new water resources management act will not neither create any new binding obligation nor direct financial effects towards the relevant operators. Moreover, the detailed rationale of the said Act stated, deviating from the environmental does not constitute a specific precondition for permit consideration in accordance with the Environmental Protection- or Water Act.[44]

At the time of stipulating, the chosen implementation line reflected to the large extent the prevailing discussion in legal literature. Before existing predicate, the normative nature could not be deduced solely by comparing different language versions issued in the Member States, due equivalent probative value of them.[45] However, prior the Weser -case in legal literature was aimed to define the normative nature by other means. This discussion has largely polarized on two ends; binding point of view favors example an argument, according the TFEU 288 directives set binding target state in EU level, of which transposition means in national law the MS are competent to choose. However, this perspective has been questioned due to a certain extent general character of the WFD formatting.[46] Consequently, water status objectives have suggested to have impact in both senses, on one hand as water resources management planning measures guiding reference targets, but on the other as concrete achievable substantive objective document.[47]

Furthermore, the Finnish RBM Act and the formatting in the Directive has slight emphasize difference in relation with the RBM scheme and environmental objectives achievement through it. Namely, the Directive connects environmental objectives achievement *in making*

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[43] *Hollo – Salila* 2001, p. 7-68. Compare Weser -judgement example on; *Mäkinen* 2005, p. 14, 63. Mäkinen compares in the article programmes of measures on area planning decisions, suggesting RBM instrument shall not be mixed with strongly binding sources of law, which zoning resolutions represents.
[44] *Government Proposal* 120/2004, p. 24, 49
[45] *Van Kempen* 2012 s. 532.
[46] Cf. *Joseffson* 2012, p. 40-56; *Howarth* 2006, p.19-24. In the article Joseffson suggest, due 'overambitious' target condition and timeline, ecological objectives can be primarily held as reference values, whereas Howarth sees the “precise ecological criteria” and monitoring scheme as binding interpretation favourable aspect.
[47] *Seppälä* 2004, p. 94.

operational the programmes of measures within the RBDs, whereas the RBM Act formatting lacks this connection. In this point of view can be argued, the language in Finnish enact emphasize fewer concrete measures taken to enable objectives achievement and this sense less binding, than the original wording in the Directive. Normative interpretation and application of environmental objectives the Directive set forth are further discussed below in Chapter 2.2.4.

2.3.2 Weser- and Swartze Sulm -cases: Shaping the EU Policy

In July 1st, 2015 the Grand Chamber of the CJEU pronounced itself regarding this issue on the Weser-river case. In the case the German federal Administrative Court requested the CJEU preliminary ruling concerning, whether the MS have an obligation to turn down a project, that may cause surface water's status deterioration, or alternatively, are the substantive goals simply non-binding goals the RBMP set forth.[48] From the Court was inquired also, should the non-deterioration principle interpreted either so, that as deterioration shall be evaluated in relation with impacts that cause deterioration between classes (from 'good' to 'moderate'), or does the principle apply also on the deterioration within a class.[49]

Prior respond of the Court was handed, the Advocate General Jääskinen took a view in opinion delivered on 23 of October 2014, the quality objectives constitute binding obligation towards the MS and: "unless a derogation is granted in accordance with the applicable provisions of EU law — [they shall] refuse to authorize a project if it may either cause a deterioration […]."[50] The Advocate General elaborated; the non-deterioration principle and restoration obligation according to Article 4 shall be apply to consider individual projects, and that Article 4 constitutes simultaneously both prohibition and norm; thus, the provisions not only laid down a requirement to prohibit deterioration, but also requirement to actively implement the prohibition in *effective means*.[51] In the case was striking, that Jääskinen considered deterioration within an individual class to constitute a case to apply exemption within the meaning of Article 4(1).[52]

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[48] Weser-river case, para. 28 (1).
[49] para 28 (2).
[50] Case C-461/13 Opinion of AG Jääskinen, para 110 (1).
[51] para. 59.
[52] para. 100 (2).

The Advocate General's opinion followed the CJEU judgement, where the Court held likewise, an individual project authorization shall be considered a measure, within the meaning of actions the MS shall carry out to effectively implement the deterioration prohibition.[53] However, the judgement deviate from the AG's opinion, as the Court came in the conclusion in question is deterioration:" As soon as the status of at least one of the quality elements, within the meaning of Annex V to the directive, falls by one class, even if that fall does not result fall in classification of the body of surface water as a whole."[54] Moreover it held, if the quality element is already in the lowest class, any deterioration constitutes a 'deterioration of the status' subject to the Article 4.1.[55]

In the Schwarze Sulm -Case (C‑346/14), the First Chamber of the CJEU addressed Austria's alleged failure to fulfil obligations under Article 4.3 (HMWBs) regarding misapplication of exemption from the water quality objectives.[56] In the case was remarkable, the Court considered, which substantive measures and procedural practices constitute lawful application of the exemption in renewable energy projects. The dispute had to do primarily on with the disagreement, whether the small-scale HP project may be justified in accordance with Article 4.7.[57] The Commission claimed, as the project may derogate class of the Schwarze Sulm -river from high to good, thus the authorization of the project can be lawful only in case the conditions as set out in Article 4.7 are met. Further, the Commission argued the project do not fulfil the substantive conditions as per stipulated in the Article, and the competent authority, Governor of the Province of Styria, had not sufficiently described and reasoned the exemption in the permitting process.[58] Also it was argued by the Commission, Austria ought to have taken account in the interest comparison the capacity of the referred HP plant, in terms of ‘negligible’ renewable energy capacity increase in relation with the regional and national hydroelectricity production.[59] As opposite, Austria argued the competent authority assessed the actual regional importance and exercised "an appropriate margin of discretion for the weighing-up of interest".[60]

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[53] Case C-461/13 JUDGMENT OF THE COURT (Grand Chamber) 1 July. 2015 para 69.
[54] para. 71(2).
[55] para. 70.
[56] Case C-346/14 *Schwarze Sulm* -case (2016) CJEU.
[57] Rec.31.
[58] Rec. 32.
[59] Rec. 33.
[60] Rec. 39.

In the judgement the evaluated two matters; namely, if the project may cause alleged derogation, and secondly, if Austria had applied Article 4.1 and 4.7 provisions lawfully. Interesting was as well, the Court started by stating the WFD: "[D]oes not simply set out, in programmatic terms, mere management-planning objectives, but has binding effects" with reference on the above introduces Weser -case.[61] Secondly, the CJEU concluded, the project fall within the scope of the said article, as on site pre-assessment concluded, HP construction work may effect on eight kilometers of the river stretch, and as the concrete operations belong within the meaning of the Article. Interesting regarding the scope of the thesis was the Court's findings about Austria's interpretation on substantive conditions in accordance with Article 4.7 subparagraphs a-d.

One of the core conclusions of the judgement was, small scale renewable energy project with mainly regional effects can fulfil the requirement of 'overriding public interest.'[62] In this juncture was remarkable, it was held Austria had investigated and reasoned the project sufficiently, regardless the exemption conditions were not explicitly addressed in the authorization process.[63] In terms of overriding public interest, the CJEU referred in the Union's energy policy objectives in accordance with TFEU 192, and that renewable energy is one of the top priorities in Union's actions, as well as that the MS fulfil their obligation under Kyoto Protocol by initiating new renewable energy projects.[64] Moreover, the Court held relevant, prior authorization concluded study: ”Set out in detail the positive energy result of the project given the high water fall over a relatively short distance, as well as the economic aspects of the project for the local economy”, and that the project’s: “[P]ositive contribution towards the reduction in global warming through the substitution for the production of fossil fuel, CO2-emitting sources of electricity [was] also presented in a convincing manner.” Finally concluding: “[R]eport also highlight[ed] that the useful

[61] Rec. 54.
[62] In assessment were evaluated the project representing 2/1 000 of regional production and 0.4/1 000 of national hydropower production.
[63] Rec. 68-69.
[64] Rec. 72 -73. COM (2003) 403 final. Commission Proposal for a Directive amending the Directive Establishing a Scheme for Greenhouse Gas Emission Allowance Trading within the Community, in Respect of the Kyoto Protocol's Project Mechanisms.

objectives [of the contested project] [could] not be achieved by other means being a significantly better environmental option."[65]

The above presented judgements evoked need to discuss on Finnish praxis concerning water quality standards in terms of normative nature of them, and secondly, it cleared out position of the exemption within water regime. This is, as in the even the environmental standards would had been primarily reference values, the exemption provisions had been naturally less of importance. In another words, as the Court held the MS are obligated to pursue the environmental objectives, the regulator in Finland shall reconsider the exemption procedure to ensure good governance of it.

2.4 Water Resources and Changing Climate

Simultaneously with the tightening environmental regime, European Union is currently ramping up climate policy measures towards the 2030 targets.[66] In 2014 it brought on the table climate policy blueprint for the 2020-2030 period; proposing the line the EU aims in at least 27 % increase in share of renewables in total end-consumption by the end of the decade.[67] This is continuum for the development, that was put forward in so-called 20-20-20 agenda (20-20-20 Agenda).[68] The scheme aimed to strengthen the EU climate mitigation competence by three means, namely by; increasing energy efficiency and renewables share in total energy-mix to 20 %, and respectively decreasing greenhouse gases by 20 % by 2020.[69] Similar to the WFD, the 2020 agenda is a framework, consisting of several parallel legal instruments. In respect of renewables growth target the Renewable Energy Directive 2009/28/EC (from hereafter also 'RES-Directive') can be seen to be the most prominent one.[70] The enact assist ambition of growth by setting Member State specific target values;

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[65] In respect of further mitigation measures studying is relevant to point out, in this deduction the Court held 'apparent' that practical measures were planned to mitigate the contested project's negative impact on the status of river through the establishment of assistance measures for fish migration.

[66] Commission delivered a proposal in November 2016 for a new Renewable Energy Directive (RED II) to implement a framework for renewable energy promotion. The proposal is at the moment of writing in the processing of the European Parliament and Council. Be the conclusion as it may, it is fairly safe to assume, the energy policy in EU leans international treaties, such as the Paris agreement, and consequently climate targets will follow the increasingly strict trend.

[67] COM (2014) 015 final.

[68] COM (2008) 0030 final.

[69] ibid. p. 2-3 and 9.

[70] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (Directive 2009/28/EC); According to the RES-Directive Article 1: "This Directive

example Finland is obligated to increase national share of renewable energy in energy mix to 38 % in decade.[71]

Renewable energy objectives are ambitious, as EU aims to take forerunner positions at global scale in both; climate and environmental protection regimes development.[72] The RES Directive encourages the States to seek enhances in production from *all type of sources*, and in accordance with the division of competences, set out in EU founding treaties, the Member States are competent to plan their national energy mix.[73] As hydro power constitutes significant share in many EU Member States electricity generation, and it has several prominent characters contributing in the EU overall energy strategy, it is likely its role in climate endeavors does not lose importance. As opposite, the Commission's forecasts predicts the trend in electricity generation from HP sources is slightly increasing through the 2030 decade, and continues by stating, it continues being essential element in order to make energy production more sustainable towards 2020-2030 period.[74] At the same time, however, emphasizing renewables development must comply with the relevant environmental directives, inter alia with the on the Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora.[75]

Against this backdrop, given, hydropower projects have virtually always some impacts on surrounding environment and the Member States shall prevent deterioration and to achieve good ecological status/potential, one can the interests between WFD and RES-objectives to conflict. To mitigate possible conflict of interests, within the WFD is stipulated above mentioned clause for exception from the environmental standards it set forth. This is carried out to enable competent authorities to consider comprehensively relevant factors in

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establishes a common framework for the promotion of energy from renewable sources. It sets mandatory national targets for the overall share of energy from renewable sources in gross final consumption of energy and for the share of energy from renewable sources in transport. It lays down rules relating to statistical transfers between Member States, joint projects between Member States and with third countries, guarantees of origin, administrative procedures, information and training, and access to the electricity grid for energy from renewable sources. It establishes sustainability criteria for biofuels and bioliquids."; The directive is stipulated before energy issues were included under Union and Member States shared competences by Lisbon treaty; meaning the legal basis of the enact is built on environmental mandate.

[71] The Renewable Energy Directive, Annex 1.

[72] COM (2007) 2 *final*, p. 2. See also, COM (2006) 848 *final*, p. 21.

[73] ibid. Recital 14; Treaty of the Functioning of the European Union, Article 4.

[74] COM (2012) 0271 *final*, p. 13-14.

[75] ibid.; Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Directive 92/43/EEC).

accordance with different objectives. Therefore, the exemptions can be seen as a "hinge" to balance between different regimes. In following chapters is discussed the exemption clause application in Finland to outline the framework comparative analyze in Chapter 4.

3. IMPLEMENTATION OF THE EXEMPTION CLAUSE IN FINLAND

Emeritus professor Hollo from the University of Helsinki has suggested, without an option to derogate from the objectives the WFD set out, chances to achieve the pursued conditions in European waters are virtually unrealistic.[76] For this reason; to take into consideration diversity of circumstances and to enable the MS to balance between interest, the WFD allow to compromise the environmental standards in certain cases. Namely, from full achievement of good surface water status objectives can be deviated by three means; extending the deadlines, until 2027 at the latest; by applying less stringent environmental objectives; and exempting from them due to a new project which the MS are determined to encompass 'overriding' public interest (The RBM Act Section 23-25, The WFD 4.4-5 and 4.7). Failure to achieve good status or prevent deterioration can be accepted on the grounds of a significant new project (The RBM Act Section 23 para 1-2). Due relevance for the HP sector and afore described topical reasons in Finland, the thesis focuses on the last mentioned (The WFD Article 4.7) and respectively, the content of the enact is addressed in following in more details.

3.1 The scope of the Derogation

According to the RBM Act Section 23 exemption from the environmental objectives comes into consideration in the case;

> "(1) If *a major new project physically modifies a body of water* in a way that a good ecological status for surface water or good status for groundwater cannot be achieved, derogating from the environmental objectives referred to in section 21 may be allowed provided that:
>
> 1) the project is very important with regard to public interest and promotes sustainable development, human health or public safety in a significant way;
> 2) all available measures have been taken to prevent harm;
> 3) targeted benefits cannot be achieved by other technically and economically reasonable means that would be significantly better for the environment than modifying the body of water

[76] *Hollo* et al. 2003, p.118.

> (2) Deterioration of the status of a body of surface of water from excellent to good shall not be regarded as being contrary to environmental targets if deterioration of the status is caused by *a major new project that is in accordance with the principle of sustainable development* and if the conditions corresponding to those in subsection 1(1–3) are fulfilled" [emphasizes added].

It follows, a proposed project on surface water body can fall into the scope of the section in case it either 1. physically modifies a body of water, or 2. if deterioration from excellent to good is caused by a project that is in accordance with the principle of sustainable development.

To allow the further analyze, it is sensible to begin by defining key concepts the provision stipulates. In this context, *physical characters* refer on hydro-morphological elements of surface water, namely these include; hydrological, river continuity, morphological and tidal conditions.[77] According to CIS Guidance, *physical modification* can be resulted either due direct or indirect impacts. As projects which may cause changes within the meaning of the exemption clause the Guidance Document 36 defines inter alia; hydropower plants, flood protection schemes and navigation projects. Concerning the second section (new sustainable human development activities*)* the Directive does not provide exhaustive definition. However, the CIS work group has advised sustainability to include; economic, social and environmental aspects, which against the projects shall be evaluated.[78]

Pursuant to the RBM Act, *new modification* refers on new impacts on a water body which may result negative effects on RBM environmental objectives. According to the Commission, a new measure can be both; either a completely new project, or measures which aim to upgrade or change existing project.[79] In Finland, new project can be either upgrade or change, which requires permitting under the Water Act or the Environmental Protection Act due new environmental impacts. In contrast, if in a question is recurrence of a temporary permit without changes in circumstances, the project does not constitute new impact within a meaning of the section 23.[80]

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[77] CIS Guidance Document No. 36 2017, p. 19-20.
[78] ibid. p. 20.
[79] CIS Work Shop 2016, p. 10-12; See: *The Brundtland Commission*, 1987.
[80] Council of Ministry 2018, p. 20.

In principle, size or scale of a modification as such are irrelevant when evaluating if a proposed project requires to apply the exemption under Section 23. What defines the need are the assumed environmental impacts on a water body as a result of human activity. For instance, minor modifications in a sensitive water body may constitute more grievous effect than larger-scale measure in a less sensitive habitat.[81] In practice, however, based on the wording in both the RBM Act and Article 4.7 can be derived an argument, the exemption can primarily come into question in case of relatively large-scale project. This is, as weighting the clause's application can come into question if an operation may constitute 'a significant new project' with public interest dimension, can be delivered an argument, relevant cases take place rather on national, than in local level.[82] On the other hand, in the Schwarze Sulm -case the Court held, the clause shall be understood in a broad sense; meaning, even a HP plant, which contribution on national renewable energy share would be relatively minor, can be compatible with the clause, and accordingly the interest comparison can actualize within a local framework.

Based on the above discussed can be noted, the scope of section 23 first track is wider than the exemption under paragraph 2. Thus, especially relevant for existing HP authorization can keep the first paragraph of section 23. This is, as often hydropower projects are initiated on rivers in their non-natural state, and consequently these water bodies are already in less than high status - example in case of heavily modified water bodies. It follows, exemption by virtue of paragraph 2 can often be ruled out, as it is only applicable in status deterioration from high to good status. In addition, hydro power operations often rather prevent achievement of the good status, than cause fundamental derogating impacts in a water body, and respectively, the measures often fall under the scope of paragraph 1. It follows, as in contrast to para. 2, in case good ecological status for surface water cannot be achieved, exemption can be applied also on the watercourses in less than ‘good’ status. Taking Finland as an example; statistics show the majority of suitable river stretches for HP generation are already exhausted and in use, and new projects aim majorly on capacity additions or other

[81] CIS Guidance Document No. 36 2017, p. 23
[82] Council of Ministry 2018, p. 20-22.

renovation measures.[83] Therefore, certain emphasis in the thesis is placed on regulation concerning physical modifications resulting projects.

Ultimately, sustainability and major project -characters are inspected and evaluated against substantive requirements fulfilment. A project can meet the terms only if; 1. the project is very important with regard to public interest, 2. all available measures have been taken to prevent harm, and 3. there is not available reasonable means that would be significantly better for the environment.[84] The substantive conditions are essential factors in assessing the member states means to balance climate and other environment -related objectives in HP projects authorization, and therefore they are introduced in more details in the following chapter.

3.2 Substantive conditions for application of the derogation clause

The substantive terms to compromise the objectives pursuant to the RBM Act section 21 are: 1. The project is very important with regard to public interest and promotes sustainable development; 2. All available measures have been taken to prevent harm; 3. Available is no other reasonable means that would be significantly better for the environment. The subparagraphs 1-3 are to evaluate both, the first and second limb the section 23 constitutes (new physical- or sustainable development project). In order to get approved, the project shall meet all three conditions. Is good to note, in both clauses applies the requirement, the consideration shall be conducted case-by-case basis in individual water body level, based on scientific, technical and economic reasons, and the documentation shall be included in the RBMP (The RBM Act section 23–25, The WFD art. 4.4–5 and 4.7). The following chapter outlines the substantive conditions in HP point of view in more details, in order to analyze their interpretation in the comparative chapter.

2.2.1 Overriding public interest

First term for the exemption clause's application is, the project shall be 'very important for public interest and promotes sustainable development, human health or public safety in a significant way.' When interpreting the clause, attention shall be placed first on a conjunction, which connects the two provisions. In other words, this means in the project

[83] Finnish Energy 2008, p. 177.
[84] *Council of State* 2018, p. 20

shall be incorporated both, public interest *and* sustainability, human health or safety issues addressing features. To compare, the WFD wording emphasize interest comparison in Article 4.7 by setting forth:" the reasons […] are of overriding public interest and/or the benefits to the environment […] are outweighed by the benefits […] to human health, to the maintenance of human safety or to sustainable development." Verbatim interpretation of the Article thus provides two alternative ways for exemption; namely, the authorities shall *either* consider if the project is significant enough in terms of public interest, *or* they can exercise interest comparison between the environment and other societal benefits. In this juncture previous research has highlighted, since required human health, - safety and sustainable development can most likely be considered *in any case* to encompass features of public interest, the wording can de facto stress option of interest comparison.[85]

In interpreting content of public interest requirement, previously presented Schwarze Sulm -case comes into the limelight. In the Case C‑346/14 The Republic of Austria explained in request of the Commission's note that a derogation was:" [J]ustified by an overriding public interest in making greater use of renewable energy sources, such as hydroelectricity." Significant in the case was, in accordance with the Court: 1. construction of a hydropower plant may be an overriding public interest;[86] and 2. the project in question fulfilled the substantive requirements pursuant to Article 4.7.[87] Therefore, the case can be a subject in outlining the lawful content of the exemption.

Regarding the second deduction the Court gave a view, as project's primary purpose was to produce renewable energy with reference to TFEU Article 194(1), it could meet the criteria of public interest. It shall be noted; however, the expected renewable energy production of the project was equivalent to 0,4 per mil of annual national energy production. Based on these views can be derived two arguments; first, the concept of public interest can be interpreted in broad sense when considering preconditions for exemption, and secondly; that for the Union's energy policy objectives shall be given significant emphasize in the Member State level when bringing the clause to bear.

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[85] *Council of State* 2018, p. 20; In Finland public interest question were at hand inter alia at the time of Water Act revision and abolishing of mandate law 266/1961, when the new Water Act was amended with Chapter 2 section 13(a). Energy security has been considered as a public interest within the meaning of the enact.
[86] par. 68-70.
[87] par. 71-80.

Assistance in outlining scope of the provision can be seeked from the Habitat Directive (92/43/EEC) Article 6(4) application, as it includes likewise the WFD provision for interest comparison, when considering a new project in protected area. Unlike the exemption under the WFD, the Commission and the EU Court have applied the Habitat Directive in numerous cases, and based on the formed legal praxis can be argued, the said EU instances have emphasized role of the national discretion in Article 4.7 application.[88] For instance, the Commission held in case of Rotterdam harbor development project, that the public interest conditions were fulfilled due 'the importance of the project for the Dutch economy', and further, compatible facts according to the court were, "the harbor of Rotterdam is an essential multimodal crossroads" and "approach […] combines better use of available space, improvement of living conditions and development of new space by land reclamation, and *appears to find the best balance between the human and the natural environment* in Rotterdam urban and portuary area."[89]

Furthermore, the Commission Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC points out regarding examining reasons to grant the exemption: "[...] it is clear from the wording that only public interests, promoted either by public or private bodies, can be balanced against the conservation aims of the Directive."[90] Being so, in principle a project itself can be conducted by a private operator, but in order to trigger the public interest provision, positive implication shall be actualized on public stakeholders. The Commissions notes as well, constituting public interest is not solely enough, but moreover the result must be significant enough to be *overriding.* To evaluate this requirement the Commission connects the precondition on a time-scale dimension; more precisely, a condition can be overriding only, if it results long-term benefits. This is, as according to the Commission short term economic or other interest do not outweigh the long-term conservation interests.[91]

Another good reflection point to study the condition provides the fact, according the Habitat's Directive the public interest shall be *imperative*. Thus, one may ask, is the possible scope to apply the provision de facto broader with respect to the WFD than the Habitat's

[88] *Council of State* 2018.
[89] *European Commission* 2003, p. 6.
[90] *European Commission* 2007, p. 55.
[91] ibid. p. 8.; In Finland, the subject of overriding public interest was addressed simultaneously with withdrawal of mandate law 266/1961, when in the Water Act was amended chapter 2 section 13 and 13a. Example measures to ensure energy security have seen to represent public interest.

Directive? It is true, the WFD Article 4(7)(c) obligates to assess if the project constitutes public interest, but without the reference on 'imperative' character it can be assumed, the reason can be also less than that. Nevertheless, the consideration shall be always conducted case-by-case basis. According to the legal literature review seems, the threshold for public interest condition may be lower than the verbatim interpretation of the Finnish RBM Act may imply.[92] However, working group deducts in the above Council of State report, that example an individual (small scale) peat industry or fish farm project would be hard to see to meet the requirements for exemption.[93]

2.2.2 Adverse impact mitigation

The second precondition for exemption authorization is as per the RBM Act Section 23 provides '*all available measures* have been taken to prevent harm' in purpose to avoid or reduce conceivable adverse impact on water quality elements.[94] The Act itself nor the government proposal define the content of the measures that may fulfill the requirement. However, the CIS document outlines the essential characters regarding the measures which may meet the conditions. From the RBM Act used 'availability' can draw parallel on the WFD expression 'all practicable steps' and 'practicability'[95], and therefore instruction concerning the concept used in the WFD is feasible to be used to interpret the expression used in the Finnish enact.

The Commission determines; "[..] mitigation measures should be technically feasible, not disproportionate costly and compatible with the new modification, alteration or new sustainable human development activity."[96]These measures may comprise either of an individual or combination of actions, taken place in different phases of a project. In practice these measures can be inter alia measure regarding the proposed project's construction work and execution, based example on a project plan or environmental permit terms.[97] In this juncture the Commission instructs, 'economical reasonability' requires in practice to compare different available solutions and cost structures of them. Moreover, according to the WFD

[92] See *Council of State* 2018; *Seppälä* 2004; *Kauppila* 2014, p. 99-102.
[93] *Council of State* 2018, p. 31.
[94] CIS Guidance Document No. 36 2017, p. 51.
[95] Cf. ibid., p. 52.
[96] *Common Implementation Strategy Workshop* 2016, p. 22.
[97] CIS Guidance Document No. 20 2009, p. 27.

implementation document no. 36, the preventive measures and estimated reasonability of costs shall be *proportional* in relation with the estimated adverse impact on the water environment.[98] Therefore, the mitigation requirement instruction concerning the Directive seems to stress economic dimensions of proposed projects when weighting up predicted implication. This is, as the competent authority is entitled to value by fiscal means the expected outcomes in permit consideration, and basis the authorization decision in respect of mitigation measures at least to the certain extent on them.

The MS can set out requirements for mitigation and restoration measures in different forms, such as reference- or guidance documents. These instructions may include example best available technique (BAT) and best environmental practice (BEP) requirements.[99] Given the fact the CIS working group suggest; aim of the measures subject to the guidance documents is to minimize or even cancel the adverse effect, the ambition level of these instructions and according measures shall be relatively high.[100] In the case of HP projects, the CIS guidance highlights as an example of important mitigation measures the construction of fish migration aids and instream ecological flow maintenance measures.[101]

Furthermore, it is good to note, the preventive/mitigative measures shall be distinguished from compensative ones. In the Case C‑521/12[102] concerning Natura -sites protection the CJEU held, mitigation measures purpose is to 'minimize or even to wave derogating impacts', whereas compensation refers on measures which are not directly linked on the conducted negative measure, in order to effect positively on overall environmental impacts.[103-104] On the other hand, according to the Commission adverse effects mitigation

[98] CIS Guidance Document No. 36 2017, p. 52.
[99] ibid. p. 52-55.
[100] See ibid. p. 52.
[101] ibid. p. 53; It should be noted, river stretches where HP installations locates are often classified as HMWBs where the objective is to reach GEP. Concerning water bodies which are impacted by water storing ECOSTAT report further defines 10 key types of mitigation means, based on identified adverse impact, see *Working Group ECOSTAT* 2016, p. 30-32. In case of both, projects subject to the WFD Article 4.3 and 4.7 it is important to distinguish final obligatory measures and means, which suitability shall be assessed over the course of the project. This is as rationale of the mitigation provision is, part of the assessed measures may be ruled out due unsuitability or can be replaced example by more cost-efficient alternatives. Also, it shall also bear in mind, in some cases by mitigation measures is possibly reach GES, and therefore withdraw GEP classification. See CIS Guidance document 36, p. 53.
[102] C‑521/12 T.C. Briels and Others v Minister van Infrastructuur en Milieu.
[103] para. 29-35.
[104] It should be noted in the C‑521/12 the Court addressed a case under the Habitats Directive. Unlike the Habitats Directive, the WFD does not impose *compensatory* measures. Rather, the Directive presupposes if

measures are possible to conduct also off site, if the offset measure and the project actualize within the same water body.[105] Adverse effect preventive measures shall be considered in two phases of a proposed project; first, when it is evaluated if a project may cause deterioration or non-achievement of GES/GEP, and secondly, when the competent authority evaluates, if the exemption clause can be applied. The authorities can set mitigation measures as conditions for a permit or license, including example maintenance and monitoring requirements for the obligated actions.[106]

2.2.3 No significantly better environmental option

Thirdly, the RBM Act stipulates as a requirement for the exemption: "Targeted benefits cannot be achieved by other technically and economically reasonable means, that would be significantly better for the environment than modifying the body of water." In other words, the enact lays down the restriction, a proposed project cannot proceed, if available is from the RBM environmental objectives point of view better options. The CIS guidance advice, these measures may include alternative locations or processes, different scales or designs of development, or example alternative conduction methods,[107] and continues by defining; the comparison of available alternative options may take place in European level by the largest. However, geographical options shall be weighed between available *realistic* options.[108]

Technical reasonability refers thereof on the assumption, infeasibility is justified if relevant technical solution is not available; fixing the problem would take longer than there is time available; or a solution cannot be identified.[109] Despite economic reasonability is a stand-alone requirement, de facto assesment of it can feed into the technical availability consideration. In both cases disproportionate cost evaluation shall be assessed based on cost-

Article 4.7 conditions are met, a project cause some residual adverse effects on the water body where a project take place.

[105] CIS Guidance Document No. 36 2017, p. 52-55; More about compensation measures in respect of ecological flows in Finnish rivers: *Soininen* et al. 2018.

[106] CIS Guidance Document No. 36 2017, p. 53.

[107] ibid. p. 56; ibid. 2007, p.6.

[108] CIS Guidance Document No. 20, p. 15; In regards of hydropower projects, national property law determines typically to the certain extent the realistic options availability. For instance, in Finland ownership of hydropower is private, and therefore alternatives consideration is drastically different than in states, where the national ownership is public. Example it is relatively safe to estimate, for a private economic actor who possess hydropower generation right, an option to build wind power is not most of the times relevant alternative.

[109] ibid. p. 12.

benefit analyze,[110] based on the principle, simultaneously with potentially achieved environmental increase the reasonable cost assumption.[111]

Thus, alternative means can include two dimensions; namely, strategic and project specific level. The first mentioned include alternative options consideration beyond the local context. In practice this can mean example other renewable energy form, alternative hydro power plant location consideration or other means to balance energy supply or demand. Whereas, project level alternatives shall be assessed against the evaluation, if by other means can be achieved the same result with less adverse impacts.[112] Regarding the strategic level, one could pose a question concerning realizability of alternative HPP location consideration, given, in many MS the suitable sites are either in energy production use or protected.

Likewise, the WFD the Habitat's Directive set forth a requirement to examine available alternative solutions. In Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC the Commission states, the competent authorities in the MS shall asses alternative solutions in the last resort.[113] However in practice, the needed information to evaluate possible alternative options may be available example in Environmental Impact Assessment Data, if the proposed project falls under the scope of Environmental Impact Assessment Act (252/2017).[114] Therefore in some cases an economic operator may be obligated to identify and evaluate alternative options prior the authoritative evaluation. It follows, as previously noted, a project in any size may be in principle subject to the RBM Act section 23, a proposed project may not fall into scope of EIA procedure. In these cases, an actor may be obligated to carry out relevant studies in order to outline project conditions for exemption authorization, regardless it won't be mandatory under other relevant enacts.[115] According to Finnish law, a new project is either a completely new measure, or a change in existing installation, if its environmental impacts change fundamentally. Therefore, a project subject to the exemption can be example completely new hydro power project, or

[110] *Council of State* 2018, p. 25.
[111] More about economic analysis principles see: CIS Guidance Document No.1 2003b, p. 12.
[112] CIS Guidance Document No. 36 2017, p. 56 and 58.
[113] *European Commission* 2007, p. 6.
[114] CIS Guidance Document No. 20 2009, p. 12.
[115] ibid. p. 15.

alternatively capacity increase measure, which may not require comprehensively impact assessments.

3.3 The Exemption Procedure and critique of the RBM Act

3.3.1 The Account in the RBMP and timing of the exemption analyze

Finland has not applied the exemption by virtue to the RBM Act at the time of writing, but technically, it can be seen to consists of two dimensions. In accordance with the RBM Act section 23 para. 3 in river basin management plan shall be presented an account of substantive conditions fulfilment and resulted alterations in the body of water when applying the exemption. However, in the section's wording is not clear, if the obligation applies in both, projects in accordance with the principle of sustainable development, as well as on physical changes causing projects, likewise in Article 4.7. Moreover, in accordance with Article 4.7: "The reasons for those modifications or alterations are specifically set out and explained in the river basin management plan" and the plans shall be reviewed every six years. Whereas, the WFD Article 13 and Annex VII stipulates, in the RBMP shall be enclosed a register of water body specific environmental objectives and identification of projects, on which Article 4.7 has been applied.

Relevant projects identification to the river basin management plan is stepwise. In Finnish Environmental Ministry's guidance document is instructed, on the RBMP preparation phase all the relevant projects with possible derogating impacts shall be assessed in the river basin district level to screen out in stages the ones, which may fall into scope of the clause. And secondly, if possible eligible projects take place, follows substantive conditions evaluation and possible inclusion in the RBMP. Initial identification of projects basis on planning phase estimated extent- and significance of measures. According to the guidance document, subject to the exemption review include primarily EIA liable projects, which thereof would be informed for The Centre for Economic Development, Transport and the Environment. Based on the conducted assesment, the centers can evaluate and address the exemptions in the RBMP. Moreover, in the guidance document is advised, in the RBMP should be outlined general description of all projects which can cause significant effects on the state of the water

bodies.[116] However, in first period of the RBMP this type of assesment were not conducted in Finland.[117] Against this backdrop is relevant to point out, the instruction does not consider projects, which either are not liable under the EIA Act, or in case the impact assesment has not taken at the time of reviewing phase of the RBM cycle. In the WFD implementation guidance this issue has been reconciled by setting forth, the MS can address exemption apart from a river basin management cycle, and that modification or alteration shall be set out in in subsequent RBMP.[118]

The RBM Act does not articulate clearly in which phase of project planning the said account shall be provided, and if the exemption is available only once in every six years, when the Council of State address and approves the national RBMPs. Instead, the enact refers generally in presenting an explanation in the RBMP, without reference to resolve the exemption example through licensing.[119] However, currently planning phase of a project seems determine to the large extent if the exemption can be addressed in the RBMP. This is, as from the RBM Act section 23 wording can be deducted, the exemption can be possible primarily on relatively late stage of a project development. It follows, as in early phase of a project in consideration might be multiple alternative choices for execution, and therefore available may not be enough information to address the exemption in the RBMP.[120] Respectively, the current legal state seems to lead on a situation, where the analysis for applying exemptions can be conducted relatively late, when for sake of a proposed project may possibly been carried out concrete measures, such as initial construction or assessments acts. Especially in this respect the interpretation, in accordance with the exemption could be granted only every six years seems relatively unreasonable.

Regarding the timing of exemption assesment the Commission has advised, alternatives for the beneficial objectives provided by the modification should be assessed in the early stage of a project planning, and that: "The level of [required] information should be determined by the complexity of the decision and the possible consequences of taking the wrong

[116] *Ministry of the Environment* 2013, p. 7-8; In Finnish Environmental Administration guidance document was estimated, that all the relevant projects pursuant to section 23 would be as well subject to the EIA Law.
[117] *Belinskij – Paloniitty* 2015, p. 294-295.
[118] *European Commission* 2009, p. 29.
[119] See *Belinskij – Paloniitty* 2015, p. 292; *Council of State* 2018, p. 26.
[120] *Belinskij – Paloniitty* 2015, p. 294-295.

decision."[121] Moreover, the CIS document has been set out the analysis for applying exemptions are encouraged to keep "as simple as possible, but as detailed as necessary."[122] For these reasons could be asked, if the line is reasonable especially concerning smaller non-EIA liable projects, such as turbine refurbishment projects in existing HP plants.

The CIS Guidance has instructed in respect of Article 4.7, when considering exemptions or deferments from full achievement of good surface water status objectives, the MS are not required to wait publication of the next RBMP, in order to pass a project.[123] This interpretation supports also an argument Advocate General Jääskinen pointed out in Weser-case proposed decision. Namely, he started by noting the exemption applies only on condition, the programmes of measures and river basin management plans are in place and implemented accordingly by stating in paragraph 77, the permit authority can authorize the exemption issue that was at hand on the case. In other words meaning, lawful order to grant the exemption was to enclose the exemption account subsequently in the RBMP.[124] The early stage consideration supports also the fact, previous research has highlighted it would enable effective public engagement, as interested parties could express their views in a phase, where possible adjustment are relatively easy to conduct.[125] This is essential for renewable energy projects, since characteristically successful implementation requires robust stakeholder engagement – especially in exercise to balance interests in each phase of a project.[126] Also, knowledge co-creation through stakeholder engagement can increase information concerning climate and environmental impacts, which are essentially important factors in renewable energy projects authorization process.

3.3.2 Exemption in the Permit Scheme

A project subject to the RBM Act section 23 can be liable to apply permits as well by virtue to other enacts. In 2013 published Finnish Environmental Administration's guidance document evaluates; new projects which may cause physical modifications on water bodies require typically a permit in accordance with the Water Act, whereas other projects with

[121] *European Commission* 2009, p. 10 and 15.
[122] ibid. p. 10.
[123] CIS Guidance Document No. 20 2009, p. 22.
[124] EUTI C-461 Opinion of Advocate General, para. 76-77.
[125] *Belinskij – Paloniitty* 2015, p. 296.
[126] See ia. *Megdal- Eden - Shamir* 2017; Environmental policy and stakeholder engagement more broadly: *Cohen* 2006.

respect to sustainable development often needs an environmental permit under the Environmental Protection Act section 27 and/or the Water Act Chapter 3.[127] The RBM Act section 23 is not directly connected in neither of the permit schemes, and exemption do not formally constitute precondition for authorization in accordance with the Water Act nor the Environmental Protection Act.[128] However, pursuant to the Water Act, the Environmental Protection Act, and the RBM Act the competent authority shall *take into consideration* what is set out in the RBMPs when addressing a permit issue and document the consideration respectively in a permit decision (The WA sec. 3 para. 6 and sec. 11 para. 21; The EPA sec. 51 and 83; and The RBM Act sec. 28). This consideration obligation has interpreted to cover also the exemption account, which shall be enclosed in the river basin management act by virtue to the RBM Act section 23 para. 3.[129] Therefore, it has been suggested, permitting procedure would be adequate phase to take a stand on the exemption when relevant, and to address the matter simultaneously with the permit issue.[130]

Finnish law does not stipulate in which order the exemption account inclusion in the RBMP and the permit procedure shall be conducted. The subject is addressed in the Ministry of Environment's guidance document, but the instruction is not unambiguous. Namely, in the guidance is stated, the permit issue can proceed after the measure have been addressed in the RBMP, but on the other hand, there is no legal constrain that the permit issue would be initiated before approval of the RBMP.[131] Furthermore it is stated, that the RBMP is primarily a recapitalize and reporting document, and respectively authorities shall prioritize other substantive regulations, such as water- and other environmental regulation over it.[132]

Relation of the RBMPs and environmental permits was at hand in Vaasa Administrative Court ruling in case 12.12.2012 nro *12/0363/1*. The case concerned entry in the Oulujoki-Iijoki RBMP regarding Viinivaara groundwater project, which did not comply with the account requirements pursue to the RBM Act section 23 para 3. By the decisions the court revoked the operator's water permit, and returned the issue to the regional ELY center, and

[127] *Ministry of the Environment* 2013, p. 6. This is as the Water Act address measures may cause changes in the state, depth, water level or flow, shore, or aquatic environment of a water body, whereas the Environmental Protection Act controls pollutive actions.
[128] The Government Proposal 120/2004, p. 49.
[129] See example *Belinskij – Paloniitty* 2015, p. 296; *Seppälä* 2004, p. 100-101; *Kauppila* 2014, p. 72.
[130] Council of State 2018, p. 62.
[131] *Ministry of the Environment* 2013, p. 5-6.
[132] ibid. p. 5.

required to enclose needed assesment in the RBMP, in order the permit authority to address the facts in permit issue. Remarkable in the case was the court held; the operator should apply from the Council of State revision of the RBMP if needed, despite the Finnish law does not embody such a provision.[133]

3.3.3 Reflections

In June 2018 published Prime Minister's Office's commissioned report 'Exemptions to the Environmental Objectives in the River Basin Management - Grounds and procedure.' In the working group concluded; the current regulation pursuant to The RBM Act section 23 is partially unclear and shall be reviewed. The report indicates the Finnish legislation regarding the exemption clause's application shall be updated in two senses; first, in respect with the exemptions inclusion in the RBMP, and secondly, concerning the clause's relation with project permitting under the Water - and the Environmental Protection Act.[134] This is, as in current state Council of State has the competence to decide about project-specific exemption simultaneously with the RBMPs adoption, but it is unclear in which phase of the project planning the exemption shall be made, and what is its relationship with permitting. And ultimately, as the RBMPs are renewed in ever six-years, does it mean the 'window' for authorization opens only twice in a decade? Secondly, currently is unclear, can the proposed project be authorized before the exemption is evaluated and enclosed in the RBMP. What is more, is that the current legislation does not provide regulation concerning the permitting authority's competence to rule on exemption cases.[135]

The workgroup suggests two the feasible ways the RBM Act can be reviewed. The group initiated the regulation can be reviewed so, that the competent authority would address the exemption simultaneously with the permit issue. This view supports the fact, the exemption consideration includes consideration of the matters of law, and henceforth, the competence

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[133] See Council of State 2018, p. 27; *Kauppila* 2014a, p. 69–116 has studied sectoral practices regarding the RBMPs addressing in permit consideration. He sees RBMPs potential in project level, example in managing permit terms to effect on water status in an individual waterbody level. Example of this he keeps HP plant in HMWB, where the classification can justify imposing permit terms concerning fish ports and other fish run barrier removal measures; More broadly about Finnish groundwater projects management: *Kurki – Katko* 2015, p. 337-351.

[134] *Council of State* 2018, p. 29-30.

[135]; *Belinskij – Paloniitty* 2015, p. 301-302; See also: *Puharinen* 2017, p. 175-177; *Seppälä* 2004, p. 100, 102-103.

could be assigned to the licensing authority.[136] Also, in light of afore presented share of competence can be argued to be better in line with the EU law than the current order, in which the Council of State passes the RBMPs and simultaneously decide on the exemptions.[137] Second option according to the working group would be, project specific exemption's approval could fall into competence of 'the water resources management authority' which would refer either on the Council of State, or the ELY Centre. In this model, exemption issue would be resolved by request of an operator, and it would be precondition for authorization under the Water Act and the Environmental Protection Act.[138]

As the water resources management regulation revision in terms of exemption clause application is topical, it is reasoned to seek reference from the other EU Member States, in which the instrument has been applied. It is the author's opinion, the permit authority's assignment to address the exemptions simultaneously with the permit issue would allow wider adaptiveness and more comprehensively case-by-case consideration of environmental aspects than the order in which Council of State remain as a decision-making body. For this reason, the reference cases are presented from permitting authorities' point of view, to assess legal means to consider and mitigate environmental and climate impacts in substantive preconditions consideration. In the following chapter is presented how two EU jurisdictions, namely Scotland and Austria, have applied the exemption clause pursuant to Article 4.7.

[136] *Council of State* 2018, p. 30, 62-63.
[137] This is since the order supports the 'significance' requirement in authorization terms; by assigning the Council of State to assess the potential cases can be ensured the proposals remarkable societal value. However, as previously noted this is not a requirement in the Directive formatting. Truth is, the MS is entitled to stipulate higher environmental standards than the EU obligates, but it is a matter of discussion if this has been a purpose in the RBM regulation formatting in Finland.
[138] *Council of State* 2018, p. 62-63.

4 WATER RESOURCES MANAGEMENT IN REFERENCE STATES

To observe substantive content of the exemption clause's interpretation in the reference states by presenting a hydro power case study, it is reasoned first to discuss the reference states approach on river basin management regime and the procedural regulation concerning the exemption. To grasp the exemption clause's position in legal order and in the national permit scheme, in following chapter is discussed on share of competences concerning river basin management, water quality norms implication's formation, as well as procedural regulation on the exemption clause. After presenting the essential procedural elements, it is possible assess content of substantive requirements in the Chapter 5.

4.1.5 Institutional Arrangements of River Basin Management in Austria and Scotland

Unlike Finland and Scotland, Austria is a Federal State. Primarily, the regulation concerning water resources management is subject to the Federal Ministry of Sustainability and Tourism ('Bundesministerium für Nachhaltigkeit und Tourismus') (from hereafter 'BMNT')[139] and the Federal Constitution stipulates, competence to rule on environmental issues is shared between the federal states and provinces (The Federal Constitutional Law Article 9-10, 12). Water and waterways regulation are subject to the Federal Government (The Federal Constitutional Law Article 10), whereas, Provincial- and district-level authorities are primarily in charge of water policy implementation measures (The Federal Constitutional Law Article 11). According to the Federal constitutional law the provinces ('Länder') are chiefly in charge of hydro power governance,[140] and originating from provinces local self-administration principle, the regulation towards the industry may vary on provincial level (The Federal Constitutional Law Article 116)[141]. Moreover, originating from accessing in EU in 1995, in certain natural resources governance matters the EU law has taken precedence over the domestic law.[142]

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[139] Wasserrechtsgesetz, WRG 1959 (BGBl. Nr. 215/1959 zuletzt geändert durch BGBl. I Nr. 74/1997).

[140] Provinces are subject to both; the federal and provincial constitutional law (The Federal Constitutional Law Chapter II and IV).

[141] Originating from the Constitutional Federation order and municipalities self-administration principle, governance in Austria takes place in three levels; the central government, federal, and local context. (The Federal Constitutional Law Article 50-59b, 95–106, 115-120c). Due the share of competences, in Austria lays a network 99 administrative districts, and 2,359 municipalities with different states of self-administration (Federal Chancellery, Division III – Civil Service and Administrative Reform: Administration in Brief - Services and Data. p. 4, 6.)

[142] *Federal Chancellery* 2009, p. 4-6.

In Austria's territory locates three international river basin districts; scilicet, Danube, Rhine and Elbe. Due the international character of the Austrian RBDs, all of them have transboundary cooperation, and supranational collaboration is arranged through the Transboundary Water Commissions to coordinate the tasks with neighboring states. Austria is a party in the Danube commission, and in case of the other two, it possesses observer status.[143] The Danube river consist of six, and the river Elbe and Rhine of one planning units.[144] Due Austria's river basin districts international characters, it is reasoned to point out, in the following is focused on Austria's national jurisdiction in Danube district.

Whereas, in contrast to Austria and Finland, Scotland is part of the United Kingdom, which consist of three legal systems; each of which applying to a different geographical region,[145] in which the systems diverge partially, nonetheless certain substantive legislation applies across the whole UK.[146] While UK law can therefore be considered to have major impact on Scottish law, it shall be noticed, likewise in other two discussed states, on side of it European Community law play significant role in number of policy areas.[147]

It appears, as The Scottish Government was established in 1999 under the Scotland Act 1998, certain legal competences were transferred from the UK to Scotland (the Scotland Act section 28). Consequently, The Scottish Government, withholds executive power over matters that are not explicitly reserved either for the Scottish Parliament or the British Parliament (The Scotland Act 1998 schedule 5); environmental law being one of the devolved branches. The main decision-making body in this respect is the Scottish Cabinet, being responsible for water policy development and regulatory framework development; including River Basin Management measures.[148] Whereas, The Scottish Government and the Scottish Environment Protection Agency ('SEPA') are the chief organs in Scotland's water policy implementation.[149] Regardless being part of the UK, Scotland governs independently RBM measures within its national jurisdiction.

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[143] COM (2012) *final* 670b, p. 2.
[144] *Schönerklee* 2008, p. 26.
[145] About Scotland's legal system development see *Johnston*, 1995; *Reid*, 2004.
[146] *The Supreme Court of United Kingdom* 2018, p.1.; *Clark – Keegan* 2014, p. 1-2.
[147] The UK joined European Union in 1973, then European Economic Community (EEC). The term EU is here used due reasons of coherence.
[148] *Scottish Government* 2018, Water Environment.
[149] In water policy execution Scotland has adopted a pro-active collaborative approach, aiming to work overarchingly with sectoral stakeholders to sketch and deliver water policy programme.

There is three RBDs laying in Scotland's territory; namely, Scotland-, Northumbria and Solway Tweed, of which the latter and in the middle mentioned are sub-regional and shared with England.[150] For the sake of clarity it should be noted, in following is focused on the Scotland's national RBD, in order to assess regional legal praxis.

The Scottish Ministers approves the national RBMPs (the WEWS Act section 12), and the Scottish Environment Protection Agency ('SEPA') has appointed to work on behalf of the responsible ministry as competent authority for RBM implementation (The WEWS Act section 2). These assigned measures include: delivering regulatory functions under certain water resource regulations; RBMP development and management tasks; monitoring; and assessment of water bodies.[151] On side of SEPA, in statutory level is defined other responsible authorities who shall operate together with it, to ensure the directive is given effect in accordance with the 'Water Environment and Water Services (Scotland) Act 2003' ('the WEWS Act'), by which the WFD is transposed in Scottish legislation (The WEWS Act section 8 and 33; The Water Environment (Relevant Enactments and Designation of Responsible Authorities and Functions) (Scotland) Order 2011 schedule 2).[152] Scotland adopted the first river basin management plan in 2009 – meaning, at the time of writing the second six-year period is running for the period of 2016-2021.

In Austria, the main competent authority in river basin management is the Federal State, which when relevant, is competent to transfer implementation powers to the Länder (the WRG sec. 55 para. 3. and para. 55f.), and therefore, competences are shared between national and regional authorities. The Federal Ministry for Agriculture and Forestry, Environment and Water Management approves RBMPs, whereas operational and practical implementation is under the competency of the Länder authorities (the WRG sec. 55c para.

[150] The river basin management plan for the Scotland river basin district: 2015–2027.
[151] *Scottish Government* 2010, Section 3 - Delivering in partnership. For Scottish RBM is characteristic robust integrated approach and stakeholder's engagement in river basin management measures implementation (the WEWS Act sec. 2 para. 4 subpara. c). It is, despite SEPA is the chief administrative unit, co-ordination is facilitated together with the said statutory Responsible Authorities, National Advisor Group, Diffuse Pollution Management and Fisheries Advisor Groups, as well as with 11 Area Advisor Groups.
[152] Power of SEPA to carry out works: The Water Environment (Controlled Activities) (Scotland) Regulations 2011 section 8 and 33; Designation of responsible authorities and function: See 'The Water Environment (Relevant Enactments and Designation of Responsible Authorities and Functions) (Scotland) Order 2011' Schedule 2. According to the Order the Responsible authorities are; Scottish Natural Heritage, Scottish Water, Forestry Commission Scotland, Scottish Canals, Local authorities, District salmon fisheries board and National park authorities.

3). The Länder Governor forms 'the Water management planning body', which is responsible of RBMP implementation and coordination (The WRG sec. 55 para.2) in Länder level. Smaller-scale measures in the water body level are vested in bilateral coordination (e.g. between two provincial-level planning units), whereas in multilateral and basin-wide pertaining issues are assigned to basin-wide bodies.[153]

The country advantaged existing governmental structures, likewise Finland did, when setting up the scheme to accommodate the RBM obligations. The same administrative body is appointed to be responsible for both, flood risk management as well as the river basin management plans coordinance. Austria is currently conducting second cycle of RBM; however, it has not published the river basin management plan for the period of 2016-2021 yet at the time of writing. The first RBMPs were adopted in March 2010 for the period of 2009-2015.[154]

4.1.6 Environmental Objectives role in formation of Water Quality Norms

Austria has adopted the WFD environmental objectives as statutory standards, when the Directive was transposed in national legislation.[155] The relevant starting point to elaborate is the Austrian Water Rights Act of 1959 (Wasserrechtsgesetz 1959 WRG), which set out the centric regulation concerning domestic water resources management.[156] The law was amended in 2003 by the Federal Ordinance (Federal Legal Gazette No 82/2003) to transpose the WFD in national law, and respectively, the act imposes restoration requirement, deterioration prohibition (WRG sec. 30a para. 1) and an obligation to arrange water resources management in planning units, in accordance with the WFD Article 3 (WRG sec. 55a). According to the section 55g. para. 3, the competent authority is not allowed to permit a project under the WRG, if it compromises statutory objectives, except if the project

[153] *Schönerklee* 2008, p. 26.
[154] See Austria's River Basin Management Plan for years 2009-2015 ('Nationaler Gewässerbewirtschaftungsplan 2009'); COM (2012) final 670b.
[155] See more about Austrian water environment protection development *Chovanec* et al. 2000, especially p. 445-446. Water resources management in Austria basis on comprehensive water bodies protection, as the principle was incorporated in the Water Rights Act as early as in 1959. The water management model basis on a concept of a holistic evaluation of 'ecological integrity', 'Oekologische Funktionsfaehigkeit' of running waters. After the WFD step into force, Austria has stated the approach to corresponds the WFD term 'ecological status' and respectively monitoring obligations, and thus uses the approach as an operational scheme for investigating national aquatic communities according to the WFD requirements. Chiefly due this, protection and monitoring of waters have also long traditions; Since the sixties running water have been tested regularly, in spite of rapidly raised public interest, and after the restoration of the heavily polluted lakes was started.
[156] See also water quality monitoring in international river basins: *Shmueli* 1999, p. 437-476.

embody a public interest, that outweighs the benefits achieved by compliance with the RBMP.[157]

Whereas in Scotland, The Water Framework Directive's chief requirements were transposed in national jurisdiction by the above introduced Water Environment and Water Services Act. In addition, to stipulate detailed binding water quality norms pursuant to the Directive, Scotland set out secondary regulation in 'The Scotland River Basin District (Surface Water Typology, Environmental Standards, Condition Limits and Groundwater Threshold Values) Directions 2009' ('The 2009 Direction').[158] It was, as the 2009 Direction enacts legal basis for water quality monitoring, defines classification indicators, as well as determines standards and threshold values for competent authority to follow. In the Direction's schedule 1 laid down criteria for identifying the water body types, whereas schedule 2 and 3 set out environmental standards, and condition limits.[159]

River and coastal waters ecological status assessment method basis on biological quality elements, which are chosen to reflect significant pressures in all water categories.[160] To support the classification, Scotland uses physio-chemical QEs and non-priority substances to determine the water status in certain cases.[161] The relevant QEs are used to assess against the statutory environmental standards, set out in The Scotland River Basin District (Standards) Directions 2014, if the status of water is either good, or requires improvement.[162] Striking in ecological status reporting in Scotland is, it aims to indicate

[157] Identification of rivers with high and good habitat quality: methodological approach and applications in Austria see: *Muhar* et al. 2000, p. 343-358.
[158] The amendment was given with legal basis on the WEWS Act's section 2 para. 6 and the Environment Act 1995(a) section 2.
[159] See Austrian Standard M 6232 'Guidelines for the ecological study and assessment of rivers'.
[160] Against this backdrop is interesting, for fish indicators in lake habitats were not developed monitoring method at the time of writing.
[161] More about Assessing Scotland's water environment by environmental standards, See: *The Scottish Government 2014, especially p. 6-7, 15-18.*
[162] See Scottish Government 2014, p. 9-10. In the guidance document the Ministry defines as guiding principles concerning application of the standards in carrying out regulatory functions as follows; refusing to grant applications to undertake controlled activities that would (individually or cumulatively) result in failure of an environmental standard or condition limit; granting authorizations subject to such conditions as they consider necessary to ensure controlled activities do not cause a failure of an environmental standard or condition limit; and taking enforcement action where necessary to secure compliance with authorization conditions that have been set to ensure an environmental standard or condition limit.
is met.

confidence of the assessment of each element, and the evaluation is enclosed in RBMPs (sec. 14 para. (d) subpara. (iii)).[163]

Austria has adopted a line in water bodies classification "the worst value constitutes the decisive factor" when evaluation projects impact on water quality criteria (Quality Objective Ordinance – ('Qualitätszielverordnung Ökologie Oberflächengewässer') section 4 paragraphs 6-10).[164] In other words, in environmental objectives interpretation Austria applies a view – unlike Finland - each quality elements are significant solely in assessing the overall status. In this sense can be noted, Austria's approach in permit consideration can be stricter than the Finnish line, in which water body status is evaluated based on mean values. In 'The Water Environment (River Basin Management Planning: Further Provision) (Scotland) Regulations 2013' ('The Water Environment Regulations 2013') section 3 is stipulated about setting of environmental objectives pursuant to the Directive. In contrast to Finland, the formatting of the section does not seem to connect programmes of measures and RBMPs strongly on achievement of the environmental objectives.[165] Nevertheless, in accordance with the WEWS Act, environmental objectives and respectively condition limits constitute binding obligation towards the authorities; consequently, authorization from a project, that may have significant adverse impact is denied without adequate licensing (The CAR Act section 3-4). In project authorization the responsible authorities are obligated to follow one-out-all-out principle in ecological status consideration in all cases.[166]

To assist the analyze and in order to determine quality elements and normative surface water status, the Water Act was amended in 2003 with the 'Quality Objective Ordinance' ('Qualitätszielverordnung Ökologie Oberflächengewässer').[167] The ordinance provides an explanatory account, to determine the target states to be reached in accordance with the restoration obligation. The most interesting provisions in respect of the scope of thesis is the

[163] See COM (2012) 670a final, p. 38.
[164] Mrs. Veronika Koller-Kreimel from the responsible Federal Ministry notes; the supporting elements (hydro-morphological and physic-chemical) are set out to support permit consideration and project planning in cases, where achievement of good status/potential cannot be evaluated 'with high certainty' based solely on biological elements. For these cases an assessment based on supporting QEs shall be delivered, in order to determine if a failure to achieve good status or deterioration is expected, and respectively if conditions for authorization are possible to meet.
[165] Cf. The RBM Act section 21 and The Water Environment Regulations 2013 section 3.
[166] The *Scottish Government* 2014, p. 15.
[167] See also the WRG section 30a paragraph 1.

instructions concerning quality objectives, the competent authority shall apply in addressing a permit issue under the WRG.[168]

In river basin management execution Scotland has adopted a view, RBMPs and enclosed environmental objectives are ‘high level strategic planning documents’ with binding legal effect, and respectively, section 2 of the WEWS Act set out a general obligation on the Scottish Ministers, SEPA, and the responsible authorities to ensure in their operations compliance with the requirements of the Water Framework Directive.[169] In respect of environmental objectives in public decision-making, the WEWS Act obligates Ministers, public bodies and office-holders to ‘have a regard’ to river basin management plans and sub-basin plans in exercising functions affecting river basin districts (the WEWS Act section 16). Notable is, this provision extents in individual decision level, and in Scottish RBMPs enclosed programmes of measures identify detailed steps for phased implementation to ensure objectives achievement by 2015, 2021 and 2027.[170] In the light of the above information can be derived an argument, the approach Scotland has adopted in RBM implementation is strict, as the authority shall reflect in permit consideration detailed phased plans achievement in a proposed project plan at hand.

In Austria the national RBMP is approved by a federal ordinance 'Nationale Gewässerbewirtschaftungsplan VO 2009 – NGPV 2009' (‘The NGPV 2009’). As noted above, water body classification and classified quality elements threshold values consist the most essential content of the WFD in legal respect by laying down quality norms for the RBM scheme,[171] and respectively, due adoption in national legislation the binding implication of them can be kept strong in Austria. Expressly, water quality norms are

[168] The amendment set out quality components to be applied for specific types of pressures and impacts when assessing the likelihood of achieving the environmental objectives in case the permit is decided to grant. The quality component in impound projects are further assessed in the Chapter. Austria has standardized ecological status assessment through the Austrian Standard M 6232 ‘Guidelines for the ecological study and assessment of rivers.' The standard provides a guideline to conduct assessment in WB level by means, which comply with the requirements under the Directive and national water law.

[169] About Scotland’s Principles for Setting Objectives for the River Basin Management Plans, See; Natural Scotland – Scottish Executive, 2007; COM (2012) 670a *final*, p. 6-7.

[170] *Scottish Government* 2013; ibid. 2015a and; ibid. 2015b, especially p. 3-4. See also COM (2012) 670a *final*, p. 3.

[171] Moreover, the programmes of measures role as source of law in permitting process is essential, especially in cases, where status of water is less than in good state. Concerning these cases, the programme of measures include concrete measures, the authority has to take into consideration in permit procedure, and for instance obligation to apply permit for a certain project.

enclosed in statutory approved RBMP Chapter 5 and 6, and thus the competent authorities are obligated to take them into consideration in project permitting both federal and provincial level as such. [172] It appears, moreover, in The WRG Act is acknowledged hydropower sector's importance in RBM planning and permitting scheme. This is, as the enact connects water quality objectives on the RBMP realization by laying down 'water resources management balancing measures', one of them being hydropower generation, on side of inter alia flood protection, and drinking water supply (section 53).

4.1.7 Water Permit Authorization Procedure

At present, Austria has not adopted uniform environmental code for environmental protection purposes. Instead, the legal foundation is built on various enacts, from which the WRG is the most essential for water resources management. In the following chapter is presented a brief outlook of the relevant legal framework for HP development, which consists of both, statutory and weakly binding instruments:

1. The Austrian Water Rights Act of 1959 (The Wasserrechtsgesetz 1959)
2. The WRG Regulations (such as The Quality Objective Ordinance 2003) and The National RBMP
3. The HP Development Criteria Catalogues ('Österreichischer Wasserkatalog Wasser schützen' and 'Massnahmenkatalog Hydromorphologie')
4. Strategic Planning Approach.[173]

The Water Rights Act lays down the prohibition to 1. endanger water bodies condition and 2. soil and groundwater contamination (sec. 30a para. 1). To safeguard the water protection provisions, the WRG sections 8-9 obligates all water utilization measures that exceed 'general use' - such as bathing and recreational purposes - to apply a water use permit from

[172] To accommodate the environmental targets achievement by identifying appropriate measures, prevailing ecological status in individual water body level is first defined in accordance with the WRG 2003 Amendment Annex C, by which the WFD Annex V is transposed into Austria's national law. The Annex set out the quality elements ('QE') for the classification of ecological status based on; biological, hydro-morphological and physio-chemical elements. Calculated QEs shall be reflected against the normative legally binding water status standards, set out in the Ordinance Annex D, to define needed measures to achieve aimed status/potential. In this respect, the formatting follows to the large extent the wording the Directive.

[173] HP Catalogue ('Österreichischer Wasserkatalog Wasser schützen') Federal Ministry of Agriculture, Forestry, Environment and Water 2017; Measure Catalogue ('Massnahmenkatalog Hydromorphologie'); Federal Ministry of Agriculture, Forestry, Environment and Water 2012; Strategic Planning Approach see: Alpine Convention 2012, especially *Barth* and *Heinen-Esser*.

the relevant sectoral regulatory authority.[174] In case of any new project, which may trigger the 'general use' condition, and thus be of a subject for authorization, the Water Rights Authority (‘Die Wasserrechtsbehörde‘) as the competent permit authority must clarify in the permitting process, whether the status deterioration is expected or not (the WRG section 11 para. 2).[175]

The Water Rights Authority on behalf of provincial government is primarily the competent authority to address the authorization of hydro power projects (The WRG Act section). However, the size and scale of a proposed project may effect on the share of competences.[176] This is, despite in Länder level the competent authority under the WRG is primarily the Water Rights Authority, the Federal Government may address abstraction in case of the most substantive projects, such as border river projects and large HP installations.[177] Moreover, when relevant the competent authority shall consult other authorities and the Governor - also in case the exemption clause in applied in water permit consideration (the WRG Act section 102 and 104a).[178]

As noted earlier, Austria applies in river basin management a view, each QE shall be taken into consideration individually, and that river basin environmental objectives constitute legally binding provisions towards public authorities.[179] Accordingly, the WRG Act obligates all administrative decisions to comply with the river basin management plans, and further, to reject applications, which may endanger water-related public interests, including the environmental ones (The WRG section 32). Respectively, Austria has adopted the line, primarily every new HP project shall be designed to avoid the deterioration within the meaning of the Water Act section 30.[180] In order to pursue the ambitious aim, the WRG imposes obligatory mitigation measures for HP projects; namely, by obligatory river

[174] The WRG sec. 9 differentiates public and private ownership of waters. The derogation prohibition and permit obligation apply similarly for both ownership forms, but the privately-owned water is reserved for the owner, and therefore, the use of it requires the landowner's approval.
[175] The WRG section 8-9; 104; 111a.
[176] See the WRG sec. 104a-105; *Dr. Veronika Koller-Kreimel* 18.8.2018.
[177] The WRG section 102, 104-104a.
[178] More about share of competences on legal and institutional setting for water allocation: OECD 2015, especially p. 2.
[179] This is as Austria has implemented the national RBMP by the Federal Ordinance. The Ordinance stipulate in Chapters 5 and 6 about environmental objectives achievement through river basin management (The WRG section 30a).
[180] See *Dr. Veronika Koller-Kreimel* 12.9.2018. p. 16.

fragmentation and flow depletion mitigation measures (The WRG section 12a and 13).[181] In this purpose, Austria has negotiated sustainable HP development principles together with sectoral stakeholders to assist economic operators and competent authorities in HP scheme planning and permit consideration.[182] Respectively, Austria has adopted 'HP development catalogue' (Österreichischer Wasserkatalog: Wasser schützen – Wasser nutzen. Kriterien zur Beurteilung einer nachhaltigen Wasserkraftnutzung) and 'Strategic Planning Approach' to engage stakeholders to develop, share and implement best practices.[183]

After, if the deterioration cannot be avoided despite mitigation measures, the competent water authority shall conduct 'Article 4.7 assessment' to evaluate if a proposed project fulfills the substantive conditions within the meaning of the exemption clause.[184] For this purpose, it is set out a statutory 'Quality Objective Ordinance – Ecological Status of Surface Waters [Qualitätszielverordnung Ökologie Oberflächengewässer QZV Ökologie OG] to assist the authorities to forecast deterioration *with high confidence*.[185] This is, as the ordinance set out risk assessment-based thresholds for each of the supporting QEs, and leans on the principle, in case a new project exceeds the threshold values as per enclosed in the Ordinance, a deterioration is likely to be expected. The competent Ministry in Austria has pointed out; threshold values assist the authorities to evaluate in *early stage* projects compliance with the WRG environmental objectives in respect of both, the class deterioration and achievement of GEP/GES, so that possible adjustments can be made.[186]

In Scotland, impoundments were traditionally governed by fragmented legislation; such as the Electricity (Scotland) Act 1989 for hydro-electric power, and the Salmon (Fish Passes and Screens) (Scotland) Regulations 1994 for fisheries management.[187] This was changed after stipulation of the WFD, as the enact aggregated impoundment regulation, and nowadays hydropower fall within the scope of one sectoral regulation scheme.[188] In

[181] See *Dr.Koller-Kreimel* 2017, p. 7.
[182] To ensure above objectives achievement and running water ecosystems protection, Austria applies an integrated approach, stipulated in Austrian Water Act as an operational requirement in 1990. Integrated river assessment and stakeholders' engagements role in water quality enhancing is comprehensively discussed in *Naiman* et al. and Moog & *Chovanec* 1998.
[183] See ibid. 2018 & 29-30.5.2018.
[184] *Dr. Koller-Kreimel* 2018, p. 8-17.
[185] Dr. *Koller-Kreimel*, 4.9.2018.
[186] ibid. 18.8.2018.
[187] Regulation of water services in United Kingdom more broadly: *Marques* 2010, p. 154-168.
[188] *Connell* 2013, p. 2

accordance with the WEWS Act section 20, The Scottish Ministers is competent for protection purpose to control activities in connection with water habitats. Furthermore, the act obligates activities liable to alter water environment to be subject to authorization under 'The Water Environment (Controlled Activities) (Scotland) Regulations 2011 ('CAR').[189] The CAR Act controls impacts and mitigation measures on the use of water and virtually all projects, which may cause adverse impact or failure to achieve the environmental objectives on water environment within the meaning of the directive, fall in scope of it.[190] Since 2011 proposed hydroelectric schemes with a capacity over 50 MW are subject to the Scottish Government, whereas other applications are subject to the local authority (The Electricity Act 1998 section 34).[191]

The CAR constitutes three-tier regime-specific scheme of authorization for measures, which may have an impact on water environment. The first level consists of *general binding rules* ('GBR'), which set out mandatory rules for specific low-risk activities. Within this class operations are not obliged to apply license, but compliance is carried out simply by planning operations in accordance with the rules (the CAR Act schedule 3). Regarding impoundments, weirs which; 1. is not capable of being operated to control the water level upstream; 2. does not create a height differential of more than 1m between the upstream and downstream water surfaces; 3. and was constructed before 1 April 2006, are not required to apply authorization under the CAR Act, but they can simply comply by meeting the general rules.[192]

Concerning cases which exceed the low risk, the CAR Act provides two states of authorization, depending on type and scale of the proposed activity. The projects can either be authorized through 1. registration, or 2. licensing, whereby the latter is divided in two alternatives; simple and complex license treatment, depending on the measure's at hand characters.[193] Concerning impoundment regime, if the proposed project exceeds the risk subject to the general binding rules, authorization is possible to grant only through licensing.

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[189] Development of private property law in Scotland see: (1713) Mor. 8903 and 12778 (Cunningham v. Kennedy); (1661) Mor. 12772 (Mayor of Berwick v. Laird of Haining).
[190] See the WEWS Act sect. 20 para. 3 (a)-(e).
[191] See also *Connell* 2013, p. 2.
[192] Concerning GBR weir constructions is set out:" The weir must not impede the free passage of salmon and sea trout during periods within which, in the absence of the weir, the flow of the river would be at a level expected to permit their migration; See Schedule 3 of the CAR Act.
[193] *SEPA* 2018, p. 7; ibid. 2017c, p.3.

In this juncture SEPA has instructed, simple authorization is applicable in case of all other existing weirs, dams and such as, which affects go beyond GBR, but do not affect the passage of salmon or sea trout. In addition to this, the simple authorization practice is at hand, in case removal or modification of an impoundment authorized under GBR and in construction of new impoundments ≤1m high, that do not affect passage of salmon or sea trout. The construction of any other new impoundments is subject to complex licensing.[194] It can therefore be concluded that majority of HP projects are liable to the latter mentioned procedure.

However, to outline scope of the authorization and exemption requirement concerning impoundments shall be noted, the authorization is required only, if alterations are likely to have an impact on the water environment.[195] According to the Scots regulator, example of a project that would not need authorization can be an addition of a gantry to a dam, or retrospective fitting of a wave wall, as long as the overall height or volume of the water stored behind the dam is not increased.[196] Moreover, these types of projects, shall not impact on any overflow structures or compensation flows. Consequently, authorization will be required for any proposed project that alter the height of the dam or the maximum capacity impounded. Furthermore, authorization shall be applied if there are any impacts on structures that are for the purpose of fish passage.[197]

To assess project's likely impacts and respectively to determine the required procedure, under Scotland's law there is a requirement for prior-authorization for any activity with the potential to adversely affect the water environment.[198] As a first step in the prior-authorization process, SEPA assesses the risk posed by the proposed activity to the water environment. The risk assesment is carried out by evaluating the effects of a proposed development against environmental standards, which are determined based on habitat conditions; water quality, flows/levels and the structure of the bed and banks of the water body. These standards have been set such that a breach of any of them indicates *a significant risk* to one or more biological quality elements. Where SEPA considers that a proposal is

[194] *SEPA* 2018, p. 39.
[195] Operations interfering with the natural flow see: Morris v Bicket.
[196] ibid., p. 38.
[197] *SEPA* 2018, p. 38–39.
[198] According to the WEWS Act these actions include: the abstraction of water; the building of impounding works; and the carrying out of any other building or engineering works in, or in the vicinity of, surface waters.

likely to result in a breach and hence deterioration of status, it can only authorize the proposal if the requirements of Article 4.7 are met.[199] The standards are derived, and updated frequently, via a nationally-coordinated process bringing together research, data and technical experts from across the UK. The standards are issued to SEPA in the form of Ministerial Directions.[200]

4.1.8 Exemption Clause's relation on Water Permit

After adopting the WFD Austria has permitted several HP projects through the Article 4.7 derogation instrument,[201] and respective regulation is well developed.[202] The WRG was amended in 2003 to comply the WFD requirements, and Article 4.7 is transposed into its section 104a. The section provides:

> "(1) Vorhaben, bei denen:
> 1. durch Änderungen der hydromorphologischen Eigenschaften eines Oberflächenwasserkörpers oder durch Änderungen des Wasserspiegels von Grundwasserkörpern a) mit dem Nichterreichen eines guten Grundwasserzustandes, eines guten ökologischen Zustandes oder gegebenenfalls eines guten ökologischen Potentials oder b) mit einer Verschlechterung des Zustandes eines Oberflächenwasser- oder Grundwasserkörpers zu rechnen ist,
>
> 2. durch Schadstoffeinträge mit einer Verschlechterung von einem sehr guten zu einem guten Zustand eines Oberflächenwasserkörpers in der Folge einer neuen nachhaltigen Entwicklungstätigkeit zu rechnen ist, sind jedenfalls Vorhaben, bei denen Auswirkungen auf öffentliche Rücksichten zu erwarten sind (§§ 104 Abs. 1, 106)."[203]

The WRG formatting follows the Directive. The first subparagraph set out, the exemption can be granted if a project causes changes either in the hydro-morphological characteristics of a water body, or surface water body level resulting: either failure to achieve good groundwater status GES/GEP; or deterioration on the status of a surface or groundwater body. The second paragraph enacts; a project which cause pollution and thus result a

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[199] Dr. Catherine Bernasconi, 13.8.2018; SEPA's Regulator Review Teams provide a senior level of peer review for significant authorizations, enforcement and other regulatory decisions and ensure a consistent approach to decision making is taken throughout Scotland.
[200] *Dr. Catherine Bernasconi*, 13.8.2018; See The Scotland River Basin District (Standards) Directions 2014; The Scotland River Basin District (Standards) (Amendment) Directions 2015.
[201] *Dr. Koller-Kreimel,* 23.7.2018.
[202] Future of hydro power in Austria see: *Wagner* 2015, p. 304-314.
[203] The citations are provided in German as there is not available official translation for the WRG Act.

deterioration from a very good to a good status because of a new sustainable development activity, may be a subject for exemption. In both cases, the projects shall fulfil the substantive requirements in accordance with the paragraph 2;

> "(2) Eine Bewilligung für Vorhaben, die einer Bewilligung oder Genehmigung auf Grund oder in Mitanwendung wasserrechtlicher Bestimmungen bedürfen, kann nur erteilt werden, wenn die Prüfung öffentlicher Interessen (§§ 104, 105) ergeben hat, dass;
>
> 1. alle praktikablen Vorkehrungen getroffen wurden, um die negativen Auswirkungen auf den Zustand des Oberflächenwasser- oder Grundwasserkörpers zu mindern und
>
> 2. die Gründe für die Änderungen von übergeordnetem öffentlichem Interesse sind *und/oder*,[emphasize added] dass der Nutzen, den die Verwirklichung der in § 30a, c und d genannten Ziele für die Umwelt und die Gesellschaft hat, durch den Nutzen der neuen Menschen oder die nachhaltige Entwicklung übertroffen wird und
>
> 3. die nutzbringenden Ziele, denen diese Änderungen des Oberflächenwasser- oder unverhältnismäßiger Kosten nicht durch andere Mittel, die eine wesentlich bessere Umweltoption darstellen, erreicht werden können."

The paragraph set out as preconditions for the exemption clause application in accordance with three substantive conditions set out in the Directive; 1. all practicable measures have been; 2. the reasons for the changes shall constitute overriding public interest *and/or* the benefits to public health, safety or sustainable development outweigh the environment benefits pursuant to the section 30 environmental objectives and; 3. a significantly better environmental option is not available.[204] Thus, comparing on the Finnish RBM Act is possible to make a note the enact set out clearly; the overriding public interest and interest comparison provisions by virtue of the section subparagraph 2 can be alternative options. Meaning, in contrast to Finland, the project does not necessarily have to constitute both conditions, in order the exemption clause to be applied, and therefore, Austria's interpretation seems to be broader, than the adopted line in Finland.

The second interesting note in contrast to Finland is, what the WRG set out in regards of the competent authority to address the exemption and the content of *public interest* in case of both 'limbs' the section 104a para. 2 subpara. 2 constitutes. First shall be pointed out, the exemption clause section 104a does not clearly define, within whose competence the both provisions consideration falls. Instead, it is defining with regard to the compatibility of the

[204] See 83/01 Gössendorf / Kalsdorf (2014).

project with RBMPs and environmental objectives, the water management planning body (the Governor) must be 'demonstrably involved.' Nevertheless, paragraphs 1 and 2 refers on the provision, which stipulates practices concerning *preliminary review* ('Vorläufige Überprüfung') of the public interest (The WRG Act 104). Furthermore, it gives rise to the provisions, the water management planning body shall address primarily all water permit issues together with other competent expert bodies, laid down in section 108.[205] This is, as formatting of section 104 and 104a implies the exemption provision to be a sub-section of 104, and therefore can be deducted same procedural regulations to apply on both them.

Interpretation advise concerning the timing of exemption can seek from the WRG the section 104. This is, as the enactment refers on the first paragraph of the section 103, which set out requirement of documents the applicant shall deliver for the competent authority, when applying the water use license under the WRG. To elaborate, it is defined in the section 104: "In the presence of an application in accordance with the provisions of § 103 […] if the nature of the project is expected to have an impact on public interest (§ 106), the authority shall, in particular, examine the […] requirements."[206] In other words, the provision can be interpreted to constitute the public interest shall be assessed *simultaneously* with the water permit issue.

The section 104 and 105 outlined the substantive content of above-mentioned public interest, which is further discussed in Chapter 5. Expressly, the enactments lays down the conditions, both authorities shall take into consideration, when concerning public interest within the meaning of the exemption clause.[207] The analyze can be started from the list the section 104 set out. Namely, the relevant authorities shall *have regards*, when assessing public interest conditions inter alia in following factors: 1. do the installation comply with the state of the art technology; 2. whether a possible contradiction with public interests could be remedied by permit terms or changes to the project; 3. what measures are likely to be required for the protection of water environment if the permit is granted; 4. to what extent the proposed

[205] The expert's groups in accordance with the section 108 are: The relevant authorities under Environmental Promotion Act or the Hydraulic Engineering Act, the electricity industry, aviation, nature conservation, shipping and environmental protection; The fishery committees; Local Chambers of Agriculture, Chambers of Commerce and Industry stakeholders.
[206] Feasibility versus sustainability in urban water management in Austria: *Starkl – Brunner* 2004, especially p. 245-250.
[207] Property law in relation with the public interest see: *Penker* 2009, p. 947-950, 952-953.

project complies with the in force RBMP; and 5. whether and to what extent the project affects public interests within the meaning of section 105, as per elaborated below (the WRG section 104 a-c, g). Concerning dams and reservoirs is stipulated, excluding river plants which height exceeds 15 m, or in which capacity of the reservoir exceeds 500 000 m^3, an opinion of the reservoir commission must be obtained (The WRG sec. 104 para. 3).[208]

To analyze further, the section 105 stipulates conditions, in which cases the authority can estimate, a proposed project is likely *not to* represent public interest. The conditions include cases in which a project results significant deterioration on the ecological status of the waters; it is contrast with other Community legislation; or if the quality of the water would be adversely affected (The WRG sec. 105 para. 1 subpara. (e), (m) and (n)). In respect of hydro power development, the said paragraph determines; the approval of a project may in particular be considered inadmissible, if the undertaking to exploit the body of water does not comply with t*he fullest possible economic exploitation of power generation* (The WRG sec. 105 para. 1 subpara. i). Thus, the substantive content of public interest requirement in Austria seems to be strongly connected on economic endeavors.[209] If the development is considered inadmissible due public reasons, the application must be dismissed. However, as noted Austria emphasizes importance of early discussions in projects planning, and the enact therefore continues; the water authority shall inform the applicant about estimated failure to comply with the permit requirements, and that the applicant is competent to clarify or amendment the application within the deadlines to adjust the project to better comply with the environmental standards (The WRG section 106).

In contrast to the RBM Act, the enact stipulates clearly, concerning both; the sustainable development and physical changes causing projects, a detailed account of the exemption's application shall be set out in the National RBMP and the water body specific objectives shall be reviewed every six years. If conditions for granting the permit are met, the account

[208] The installations, which exceed these conditions are subject to Federal governance; See OECD 2015, p.2.
[209] *Richard Posner* is one of the classic scholars who has assessed economic regulation. In his publication 'Theories of Economic Regulation' (1974) Posner outlines economic public interest theory. He asses linkage by which a perception of the public interest is translated into legislative action especially through behavioral assumptions, and distinguish actions to promote effective allocation of resources on political and private interest driven.

is enclosed in the next RBMP subsequently (The WRG sec. 55c para. 2. subpara. 5 and sec. 106).

Likewise, Austria, Scotland has applied Article 4.7 on HP project multiple times over the course of the past years.[210] However, the number of passed exemption projects is significantly bigger than in the other reference jurisdiction. The exemption clause is transposed in Scottish law with 'The Water Environment (River Basin Management Planning: Further Provision) (Scotland) Regulations 2013 (2013 No. 323)' ('from hereafter also The Water Environment Regulations 2013') to amend the WEWS Act.[211] The exemption is addressed in section 8 (modifications to physical characteristics) and 9 (sustainable human development activities). The sections formatting follows the Directive to the large extent; however, comparing on the RBM Act is notable, the provisions are stipulated in separated sections.[212]

Section 8 provides:

> Environmental objectives: modifications to physical characteristics
>
> 8. "For the purposes of these Regulations and Part 1 of the Act (in particular section 9(7)(a)), a failure to achieve good groundwater status, good ecological status or, where relevant, good ecological potential, or to prevent deterioration in the status of a body of surface water or a body of groundwater is not a breach of the environmental objectives set pursuant to regulation 3(1) if the failure is the result of new modifications to the physical characteristics of the body of surface water or alterations to the level of the body of groundwater, and the following conditions are met—"

Whereas section 9 stipulates:

> Environmental objectives: sustainable human development activities
>
> 9. For the purposes of these Regulations and Part 1 of the Act (in particular section 9(7)(a)), a failure to prevent deterioration from high status to good status of a body of surface water is not a breach of the environmental objectives set pursuant to regulation 3(1) if the failure is the result of new sustainable human development activities, and the following conditions are met—

What is reasoned the specify for the purposes of further analyze, Part 1 of the WEWS Act in which the above two sections locates, consist of general provisions, river basin

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[210] *Dr. Catherine Bernasconi*, 13.8.2018.
[211] System of abstraction controls in Scotland: *Adeloye – Beng* 1996, p. 123-125.
[212] Cf. The RBM Act section 23 para. 1-3; Scottish approach on less stringent environmental objectives within the WFD regime see*: Görlach1 & Pielen* 2007, p. 8-9.

management planning, measures for protection of the water environment, and supplementary provisions. Section 9(7)(a) connects the environmental objectives set out in the relevant Scots water regulation on the WFD Article 4, and on the water regulation section 3(1) to set environmental objectives in accordance with the Community Water regulation (restoration obligation and derogation prohibition).[213]

Concerning the four preconditions, three of them follows the formatting of the Directive:

> (a) all practicable steps are taken to mitigate the adverse impact on the status of the body of water;
> (c) the beneficial objectives served by the modifications or alterations of the water body cannot for reasons of technical feasibility or disproportionate costs, be achieved by other means, which are a significantly better environmental option; and
> (d) the reasons for the modifications or alterations are set out and explained in the river basin management plan (or the next update of it) and the environmental objectives are reviewed every 6 years.

In respect of public interest, the provisions have some differences on emphasis. Expressly, the enacts provides:

> Section 8: "(b) *[T]he reasons for the modifications or alterations* are of overriding public interest *and/or* the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the new modifications or alterations to human health, to the maintenance of human safety, or to sustainable development" [emphasize added].

> Section 9: (b) *[T]he activities are of overriding public interest and/or* the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the activities to human health, to the maintenance of human safety, or to sustainable development [emphasize added].

Similar to the WRG in Austria, the Water Regulation determines, concerning both; sustainable development and physical modifications, overriding public interest, and the outweighing societal benefits can be alternative options, to constitute preconditions for exemption to be applied.[214] Notable is, the enact itself do not define the competent authority or timing to address the exemption. However, similar to the RBM Act, it refers on the

[213] Common law and common environmental problems regulation: *Juergensmyer – Wadley* 1974.
[214] Common interest rights attached to property law in water regime see: (1804) Mor. 12834 (Lord Glenlee v. Gordon).

account in the RBMP, with the difference, it identifies the exemption shall be: "[E]xplained in the river basin management plan (*or the next update of it*)."

In respect of the competent authority to address the exemption, relevant regulation can be found from the WEWS and CAR Act. This is, as in the CAR Part III is laid down regulations concerning application procedure concerning controlled activities under the WEWS Act. Section 11 'Form and content of applications for authorization' defines in para. 2 concerning an application for an authorization to carry out one or more controlled activities under the WEWS Act:" If SEPA considers that the controlled activity is likely to have *a significant adverse impact* on the water environment, *SEPA* shall, subject to paragraph 3, require the application. As required information is defined inter alia; 1. a description of the measures envisaged in order to mitigate and, if possible, remedy significant adverse impacts on the water environment; 2. an outline of the main alternatives studied by the applicant, and 3. an indication of the main reasons for the choice made, taking into account the environmental effects. As one can note, the preconditions have direct reference on the WFD Art. 4.7. para. 3 subpara. (a) and (c) and parallelly in The Water Environment Regulations 2013'.

On section 11 paragraph 4 of the CAR Act is further specified the procedural practices. It is an applicant's right to request from SEPA an opinion, which information shall be accompanied with the water use application, before submitting it. In this juncture is specified, if SEPA considers a proposed measure to have a significant adverse impact on the water environment, it must consult before giving its opinion also other relevant public authorities which "likely, by virtue of their specific environmental responsibilities, to have an interest in the application" (The CAR Act sec 11. para. 8). In determining of application, SEPA is required to assess, if a proposed project constitutes likely significant adverse impact: 1. indirect effects on any other aspects of the environment likely to be significantly affected; 2. consider any likely adverse social and economic effects of that impact and of any indirect environmental effects identified in accordance with sub-paragraph; and 3. consider the likely environmental, social and economic benefits of the activity (The WEWS Act sec. 15 para 1. subpara. (i)-(iii)).

By virtue of the above provisions it can be derived an argument, regardless the exemption clause sections 8 and 9, nor The Water Environment Regulations 2013 do not provide

explicitly, within whose competence the exemption falls, the adverse impact shall be addressed by SEPA in the water use application procedure. This is, as under general regulation concerning the water use permit is set out detailed provision, how SEPA shall assess the adverse impact together with other relevant permit facts at hand. This point of view supports as well the guidance documents, issued to support the competent authorities. Namely, by virtue of the aforesaid the WEWS Act section 2, SEPA is entitled to deliver certain regulatory functions to ensure river basin management environmental objectives achievement. Respectively, SEPA has issued several binding guidance documents to guide the exemption procedure.[215]

Where SEPA considers that a proposal is likely to result in a breach, and hence deterioration of status, it can only authorize the proposal if the requirements of Article 4.7 are met.[216] To assist the uniform implementation of the exemption clause, SEPA has set out three guidance document; namely, 'WAT-RM-34 Derogation Determination - Adverse Impacts on the Water Environment', 'WAT-SG-67: Assessing the Significance of Impacts - Social, Economic, Environmental' and 'WAT-SG-68: Assessing Significantly Better Environmental Options'. In these documents are introduced standardized procedure for exemption application and respectively conditions assesment.[217] The legal status of the Regulatory Method documents can be classified as binding due SEPA's conferred competence to stipulate provisions in respect of RBMP lawful implementation, and for this reason they provide important information concerning regulator's approach on enactment's interpretation. Substantive conditions and procedural requirements application are further discussed through a case study in the following Chapter.

[215] To analyze the guidance documents, it is beneficial to grasp basic principles of EU environmental policy implementation in Scotland, see: *Rosh – Nash – Reid* 2009, p. 224-251.
[216] *Dr. Catherine Bernasconi*, 13.8.2018.
[217] See also WAT- FORM- 28 CAR Derogation Decision Document.

5. SUBTANTIVE CONDITIONS INTERPRETATION IN THE REFERENCE STATES: CASE STUDY FROM AUSTRIA AND SCOTLAND

Despite international community's efforts to mitigate climate change, changes in global climate conditions seems inevitable.[218] Changing climate is inextricably linked to water resources management, and increased demand of renewable energy, variations in temperature and the risks of floods and droughts imposes new challenges on governance of it.[219] As highlighted in previous research, in this discussion hydropower is holds two-fold role,[220] and therefore, stakeholders are called for more efficient balance striking between the environmental and water regimes.[221] To contribute on this debate, the purpose of the next chapter is to observe application of the WFD Article 4.7 substantive conditions in Scotland and Austria in order to explore, if from the cases can be found means to integrate the above objective in Finnish ongoing water law reform discussion.

To analyze the exemption clause's substantive provisions in more details, in following chapter is assessed two hydropower authorization cases in which the exemption clause was applied.[222] The cases were selected based on the initial mapping of all the granted exemption permits in the reference states, and on the competent authorities' interviews. Among these were selected for further analyze the Salzachkraftwerk Gries (also 'SK Gries') project from Austria, and Glen Noe Hydro Scheme (from hereafter also 'Glen Noe') from Scotland, due legally relevant project profile and available documentation. As study material was used public copies of the water use permits, obtained from competent authorities in both reference regions.

[218] *Intergovernmental Panel on Climate Change (IPCC)* 2018.
[219] *Keessen* 2012, p. 38.
[220] *Rosenberg* et al., 1995; *McCully*, 1996; *Bunn - Arthington*, 2002
[221] *Abazaj - Øystein - Ruud* 2016, p. 410.
[222] On the first RBMP cycle Austria applied the WFD Article 4.7 for two water bodies. The both cases concerned 'new modifications' regarding hydropower projects, with legal basis in 'sustainable development' project, whereas in Scotland derogation under the Article 4.7 had been granted for 121 hydropower cases.

5.1 Case Introduction

In the Salzachkraftwerk Gries -case was at hand a HP project from 2013 – few years after the infamous Schwarze Sulm - case, located in Salzach, municipality of Bruck in southern Austria. On a case was initiated to carry out a new hydro power plant construction project in heavily modified water body, with the annual electricity generation equal to 42 GWh.[223] Whereas, in Glen Noe hydropower scheme was at hand a proposal for a run-of-river hydropower scheme, located within upstream of Glen Noe river in south-west Scotland. The river was identified heavily modified, in its good ecological potential, and the proposed scheme included three small weir & intake structures built across the River Noe, and on two of its tributaries. On both reference sites were conducted the EIA assesment simultaneously with the exemption appraisal.[224]

In case of the SK Gries in Austria, the permit authority was the State Government ('Landesregierung') due the EIA liability, and estimated effects on hydro-morphological quality elements within three water bodies.[225] The exemption clause came applicable, as on the site conducted EIA indicated, the execution of the project would prevent achievement of good ecological potential in one of the tributaries ('Stau Högmoos bis Fuscherache').[226] In Scotland, all HP schemes require the water use authorization under the CAR Act,[227] and the exemption clause by virtue to the regulator's guidance document is controlled together with the permit matter.[228] In case of Glen Noe, the exemption clause was topical to address due the likelihood of adverse impact in the part of the water body and consequently potential effects on the third parties interests.[229] This was, as SEPA evaluated, the proposed abstraction would impact on 3.6 km length of River Noe, and on its two tributaries, resulting a failure of the river flow standard in Allt Garbh from 'good' to 'moderate' in over 400m section of the tributary, nonetheless the proposal was not evaluated to adversely effect on

[223] *Austria's State government* 2013, p. 6-7. For comparison, the Schwarze Sulm capacity was 17.8 GWh in 'excellent' state water body.
[224] *SEPA* 2016, p. 2-3; *Innogy Renewables UK ltd* 2015, p. 3; *Austria's State Government* 2013, p. 5.
[225] *Austria's State Government* 2013, p. 196-197.
[226] *Austria's State Government*, 2013, p. 196.
[227] See the Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2013, Table 1.
[228] See *SEPA* 2017a, especially p. 5.
[229] *SEPA* 2016, p. 2-3

overall classification of the river.[230] Therefore, SEPA kept possible to grant the license under the CAR only, if the project met the substantive conditions and the exemption test were conducted.[231]

5.2 Public interest in HP projects

The approach towards public interest role on the water permits is ununiform in two reference jurisdictions. In Austria the starting point is, when permitting *any project* in accordance with the WRG has to be clarified, whether it has a potential to alter public interest (the WRG section 105), and therefore, possibility of the proposed case to be subject for the exemption clause is assessed per se in all water permit cases.[232] In order to carry this out, the concept of 'public interest' is aimed to outline by setting them out in a list in section 105 of the Austrian Water Act. The most relevant interest the list stipulates in the RBM point of view is, that primarily a new project which is likely to *lead on a deterioration of water body status*, or *alteration of the GES/GEP objectives* (the WRG section 105 para. 1 subpara (m)) may be in breach of the public interest requirement. If the project contravenes any of the defined interests, it can only move forward through the exemption provision by applying and documenting the substantive exemption conditions.[233] Therefore, is relatively safe to characterize, Austria's approach on all three substantive exemption conditions interpretation is carried out on the basis of public interest.

The role of the public interest is not as emphasized under the Water Environment Regulations or the CAR Act as robustly as in Austria, nonetheless, it determines economic operator's possibilities to proceed on HP projects often to the large extent. It follows, as water law in Scotland is historically based on the riparian system, meaning, the rights over water has been on those who held rights in adjacent land.[234] After transposing the Water Framework Directive and the Floods Directive (2007/60/EC)[235] in the beginning of 21st

[230] *SEPA* 2016, p. 3; In this respect is notable, Scotland thereof complies with the CJEU line, the 'derogation' refers on adverse effect on quality element, rather than on water body's overall classification.
[231] More about Scotland's method to deciding the appropriate process of authorization: *SEPA* 2017c; especially p. 3-4.
[232] In this sense, the public interest provision has lex generalis characters, regardless lex specialis purpose of it.
[233] *Dr. Koller-Kreimel,* 21.11.2018.
[234] Scotland's water law development: *Robbie*, 2017. Reform of water law see: *Environment and Forestry Directorate* 2014; *Robbie* 2013, p. 183-218.
[235] Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks (Directive 2007/60/EC).

Century in United Kingdom's legislation, the traditional private domain started to shift towards public ownership of water resources. However, due the common law tradition third parties role in respect of projects, which may effect on commons has maintained its significance.[236] In HP context this can be seen to have relevance, as the practical implications of the law is, if several owners along a river possess property rights on it, any measures which have potential to substantively affect the natural flow, requires consent of the other owners.[237] It is also important to note, this is addition to public law consent, which is required under the CAR Act or any other enacts, issued by the Scottish Environmental Protection Agency.[238] Therefore, third parties role can be said to be centric in permitting projects under water law.

In exercise to carry out the public interest consideration under Austria's SK Gries case, the Water management Planning Organ ('Wasserwirtschaftliche Planung') was responsible to give the official opinion, whether a new project is in line with the public interests and the RBMP provisions (The WRG section 55), whereas the technical expert for aquatic ecology of the federal state government evaluated, if a new project will lead to a deterioration of ecological status.[239] In its deduction, the permitting authority was obliged to collect all relevant official opinions, in order to balance the interests, and in case conflicting ones occur, respectively to decide whether a permit can be given, and which mitigation measures have to be put in place (The WRG Act sections 102-105). The possible public authorities and parties, whose statements shall be collected in order to conduct the public interest consideration is defined in the Water Act section 102. Required level on mitigation measures as well as alternative execution option are discussed in further details in sub-chapters 5.3 and 5.4 below.

The relevant enacts; the CAR Act, the Water Environment Regulations 2013, or the WEWS Act do not provide specifying instruction in respect of content to evaluate the public interest dimension in permitting project in Scotland. However, the regulator has issued a guidance, which instructs stepwise consideration the permit authority to apply, in order to evaluate and

[236] *Hendry* 2013, p. 6-7.
[237] *Robbie* 2017, p. 2.
[238] ibid.
[239] *Dr. Koller-Kreimel* 21.11.2018.

compare interests, emerged from proposed projects.[240] In accordance to the guidance, SEPA applies in permit procedure primarily interest comparison, rather than 'overriding public interest' provision.[241] This originates from Scot's interpretation on the Water Regulation section 8 and 9, concerning 'and/or' -formatting between 'overriding public interest' and 'health, safety, sustainable development' -alternatives. In other words, Scotland has defined to use in provision's application exclusive interpretation, meaning, the above two conditions can be alternative options for project's authorization. In this juncture SEPA has even characterized: "In practice, for most proposals judged acceptable, the reason will be because their adverse impacts are outweighed by benefits to human health, human safety or sustainable development." And furthermore:" The vast majority of proposals will not be of overriding public interest." Example of 'the few that are', SEPA held projects, which constitute strategic importance, such as flood defense schemes, designed to protect a major conurbation.[242] Respectively, the reference project was assessed with legal basis on the interest comparison, similar to majority of other HP projects in Scotland, which had been subject to the derogation clause.[243]

To analyze the provision's legal implications, it is fruitful to outline, how the water authority in the reference cases defined the provision's principal concepts, set out by the Directive. Advise for this can be seek from the guidance document, issued by Austria's Federal Ministry, in which the authority refers on the SK Gries permit.[244] The guidance defines 'necessity of measures': [C]onceptually an objective state of deficiency, where such a state cannot reasonably be assumed to achieve satisfactory by other sufficient means." In respect of hydro power, the catalogue provides an example of the said 'necessity' to be at hand in occasion where: "[C]omparing power plants performance with per cent of regional consumption, a necessary project can alleviate a shortage of electricity in relation to comparable types of installations."[245] It follows, a project can be seen to trigger the exemption clause in an occasion, if an area suffer lack of electricity, or regional energy

[240] *SEPA* 2017a; Concerning legal weight of the guidance shall be noted, the Scottish Ministry is transposed its powers to SEPA, and it is thereof competent to set out binding instructions concerning actions within its executive power; the permit procedure subject to the CAR Act being one of them (The WEWS Act section 2).
[241] *SEPA* 2017a, p. 10.
[242] ibid.
[243] *Dr. Catherine Bernasconi*, S17.7.2018.
[244] *Austria's State government* 2013, p. 199-200.
[245] Federal Ministry of Agriculture, Forestry, Environment and Water 2012, p. 9.

security is weak. However, Austria's guidance document do not define the scope of 'regional consumption', and therefore do not held, if favorable implication shall be actualized in national, or example in provincial – or even in a community level.

Regarding the scope of the public interest, in Scotland as an example of countable positive effects the competent author has held water abstraction, which may enable drink manufacturing development, and thus contributing positively on Scottish economy.[246] However, it is further defined, the eligible measures have to be connected with and stemming from the controlled activity, and example a project which would *fund* environmental conservation measures do not fall in scope of it.[247] In respect of climate change mitigation by renewables it has given an example; a proposal to abstract water to provide a geothermal heating system for a community swimming pool can constitute basis for positive net impacts.[248] Meaning, in accordance with the Scottish Author, the counted impacts can be relatively minor and limited to community level. This is interesting against verbatim interpretation of the Finnish RBM Act, in which is expressed, a project has to be: "[V]ery important with regard to public interest *and* promotes sustainable development […] human health or public safety in *a significant way*" (the RBM Act section 23). Against this background can be argued, the Scottish approach seems to set the threshold for the exemption lower than in Finland, as it is hard to see a solely swimming pool project to embody both, significant and very important benefits in societal level. On the other hand, in contrast to Austria and Finland, the scope in which possible climate impacts observation is carried out seems to be defined in more details, than in other two reference jurisdictions. This may thereof enhance legal certainty in permitting procedure, as comparing on them the regulators have not taken a strong view in respect of the exact scope of the public interest.[249]

In contrast, in Austria the WRG Act section 104a, formatting of 'and/or' provision in juncture of overriding public interest - health, safety, sustainable development is interpreted less exclusively. To elaborate, by virtue to the *Gössendorf / Kalsdorf* – case[250], in which the

[246] *SEPA* 2017b, p. 6.
[247] ibid. p. 6-7.
[248] ibid. p. 7.
[249] Cf. Finnish Ministry of Environment 2013, p. 7-8. It is true, Finnish regulator outlined in significant new projects addressing instructions, the majority of projects which may meet the exemption provision requirements are EIA liable, but certain individual cases may be smaller than that. Nevertheless, the Ministry did not provide further definition of a project which may constitute this condition.
[250] 83/01 *Gössendorf / Kalsdorf* (2014) Umweltsenat. para. 7-8.

Austria's Environmental Council indicated; the expression shall be applied *cumulatively* for reasons of precautionary, the permit authority held in the KW Gries case, the public interest assesment shall be two-fold, consisting of 'general evaluation' and interest comparison.[251] In other words, the authority applies a method in which is at first assessed, if a project incorporates compelling public interest conditions *per se*, and secondly, the interest balancing is carried out by virtue to environmental benefits - health, safety, sustainable development (the WRG sec. 104 para. 2 subpara 2).[252] In the SK Gries case the permit authority evaluated first, the project meets the requirement of public interest, attaching its conclusion primarily on national and EU energy policy objectives.[253] This was, as the authority held, within the meaning of the WRG section 105 (para. 1 subpara. n) public interest may include an application of supplementary provisions (such as energy law), which per se may cause breach of the environmental objectives. In this deduction the authority referred on the Renewable Energy Directive, the Kyoto Protocol[254] and the National Green Electricity Act[255], and set out them to constitute the condition, in which consideration of public interest demands supplementary conditions application. Moreover, invoking on the judgement on the Gössendorf / Kalsdorf case it held, the proposed project constitutes overriding public interest within the meaning of the Directive.[256] On following sub-chapter is discussed in further details the interest comparison procedure the authority conducted in the reference permit processes.

5.2.1 Interest comparison

On light of the aforesaid, in both reference cases the permit authority had to conduct an evaluation, if the adverse effects outweighed by benefits to human health, human safety or sustainable development. In this exercise authorization of both projects based on positive implications on *sustainable development.*[257] In accordance to the Austria's WRG Act cumulative interpretation, after concluding the SK Gries project met the public interest

[251] About EU precautionary principle interpretation: *O' Riordan 1994;* See also *Cameron – Abouchar 1991*.
[252] *Austria's State government* 2013, p. 198-199; See also Ministry of Environment 2012, p. 9, 25-54.
[253] *Austria's State government* 2013, p. 198-199.
[254] Kyoto Protocol to the United Nations Framework Convention on Climate Change, Kyoto, 10 December 1997, in force 16 February 2005, 37 International Legal Materials (1998) 22. (Kyoto Protocol).
[255] Green Electricity Act (RV 121 BlgNR 22. GP 20) (Ökostromgesetz).
[256] 83/01 Gössendorf / Kalsdorf para. 5.4.2. On the decision the Environmental Senate held, tackling CO_2 emissions can comply with the public interest requirement.
[257] *Austria's State government* 2013, p. 216-217; *SEPA* 2016, p. 5.

requirement within the meaning of section 105, the permit authority had to carry interest comparison to weight the assumed sustainable development impacts.[258] To assist in this exercise, Austria's Federal Ministry has issued guidance documents, which are partially formed in HP sector stakeholder collaboration.[259] Expressly, the Catalogue of Measures ('Massnahmenkatalog Hydromorphologiet') and the Water Catalogue ('Österreichischer Wasserkatalog') set out determinants and procedure, how the authority shall take into consideration interest, when weighting them in exemption clause's application procedure.[260]

In Austria's phased evaluation, the permitting authority shall assess and document the interest comparison in accordance with the agreed environmental standards and procedure, set out in the above two guidance documents.[261] The regulator has instructed in regards of hydro power, the interest comparison shall be conducted based on two factors; expressly, energy and environmental impacts.[262] In order to make the indicators comparable, the HP Catalogue set out guidance to determine for the indicators numeral value, and respectively threshold number, to enable classification on low (gering) – medium (mittel) – good (hoch), by which the interest comparison can be carried out.[263]

In case of the Glen Noe, the legal basis for the exemption conditions consideration was 'the Water Environment Regulations 2013' section 8 (b), which set out, authors have to assess if other beneficial characters, 'achieved by the project, would outweigh by benefits to the environment and to society of achieving the environmental objectives.' Whereas, The WAT-RM-34 guidance in Scotland instructs to carry out the balancing of interests by; first,

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[258] *Austria's State government* 2013, p. 198-199.

[259] Supporting tool for authorities when weighing public interests and on the other hand a basis for regional planning activities to ensure new sustainable hydropower development as well as to protect river stretches of high (ecological) value (See 2nd National River Basin Management Plan – chapter 6.10.3).
The catalogue is also seen as a tool to support planning and financing reliability for hydropower companies.

[260] *Federal Ministry of Agriculture, Forestry, Environment and Water* 2017; ibid. 2012.

[261] *Dr. Koller-Kreimel* 4.9.2018; See *Federal Ministry of Agriculture, Forestry, Environment and Water* 2017; ibid. 2012.

[262] Both of these factors are further divided in four indicators; namely, in case of energy: Security of supply (EK 1), Quality of Supply (EK 2), Climate Protection (EK 3) and Technical Efficiency (EK 4). And on the other hand, environmental impacts valuation basis on; Naturalness (ÖK1), Rarity (ÖK 2), Environmental Key Functions (ÖK 3), and Spatial extension of the negative ecological impact (ÖK 4).

[263] *Federal Ministry of Agriculture, Forestry, Environment and Water* 2012, p. 36-47; Moreover, in the interest comparison shall be taken into consideration possible 'other' relevant factors, with possible impacts on public interest. The Criteria are as follows: Local / transregional impact on floods; Impacts on the solids balance; Impact on groundwater quantity; Impact on groundwater quality; Impact on water supply;
Impact on the immissions; Impact on already rehabilitated / renatured routes; Effects on other interests (Recreation / Tourism / Fishing / Water sports).

identifying likely positive and negative effects; secondly, assessing magnitude, importance and significance of each identified effect; and thirdly, weighting up positive and negative outcomes. If the above consideration implies potential significant positive net benefits can be achieved, it shall be finally considered, whether the benefits for human health or safety, or sustainable development outweigh the benefits of protecting the environment from deterioration.[264]

In both states HP development projects, interest balancing provision's application seems to interlinkage national and EU renewable energy targets essentially in substantive conditions evaluation. To elaborate the argument, in the Glen Noe installation the permit authority conducted the interest balancing against three factors; namely, economic, social and environmental impacts.[265] The permit authority states in regards of it:" The proposed scheme would be expected to generate 1. 6 GWh / year of power on average which would provide a very low significance benefit to the Scottish economy and environment."[266] Consideration which the authority carried out, nonetheless this determination, characterized well the significance given for the renewable energy in Scotland. This was, as when summarizing the estimated implications, SEPA had to evaluate project's expected magnitude, importance and significance towards water environment.[267] Ultimately, when forming its view concerning a judgment about where the balance of positive and negative effects lies, SEPA held by virtue to the breach of flow standards, low ranking in national water environments prioritization and poor classification in in-force RBMP, to give a *very low overall significance to the adverse impact* on the water environment.[268] Consequently, in its final decisions the authority expressed its view, having had regard to the contribution of the proposal to sustainable development through the proposed hydro scheme, that they would outweigh the negative impacts on the water habitat on the River Noe and its tributaries.[269]

If observing the case further, in the decision were ultimately at hand an exercise to balance interest between 1. 6 GWh / year of annual renewable energy increase, in contrast to adverse impact on 3.6 km of the river stretch. In other words, in this exercise was decisive, how

[264] *Dr. Catherine Bernasconi* 17.7.2018. SEPA 2017a, p. 23; See also: SEPA 2017b.
[265] *SEPA* 2016, p. 5. Three dimensions of sustainable development see: *The Brundtland Commission*, 1987.
[266] *SEPA* 2016, p. 5
[267] *SEPA* 2017a, p. 25-27.
[268] *SEPA* 2017a, p. 5; *Innogy Renewables UK ltd* 2015, p. 3-5. See also *SEPA* 2017b.
[269] *SEPA* 2016, p. 6.

significant weight were given for the climate impacts in contrast to negative environmental impacts, as it was acknowledged, the project would undermine the WFD objectives in the water body in question. Taking into consideration projects small scale in energy production point of view, it seems for the estimated climate impacts are given remarkable weight in Scotland's environmental decision-making. This is, as the 1. 6 GWh increase can be relatively safely to deem as minor benefit in national context, but it was still considered to encompass the determining characters the Directive set forth.[270] This conclusion reflects well the reference, which the Scotland's Environmental Protection Agency made on the permit conclusion reasoning on the environmental authority's guidance document.[271] Namely, in it has set out in regards of the exemption clause's application: "Making sure Scotland plays its part in tackling climate change is a national policy priority […] you should normally treat decreases or increases in greenhouse gas emissions as of high importance"[272], and respectively it was considered, the Glen Noe would comply with the Scotland's climate strategy, which would outweigh the environmental targets of the WFD.[273]

To illustrate the evaluation through an example, in case of the KW Gries, the full load hours were equal to 4745.76 h / a (resulting from 42,000 MWh / 8.85 MW). The positive climate impacts were calculated, in accordance with the formula in the HP Catalogue:

> Full load hours < 4.000 h/a: CO2eq - Emissions = -0,0531 * Full load hours + 615,8
> Full load hours ≥ 4.000 h/a: CO2eq - Emissions = 0,1304 * Full load hours - 118,0.[274]

With the given 4745.76 h/a, the formula results 21,042,000 CO2eq savings of CO_2 emissions annually, which was considered centric in: "Tackling the causes of climate change essential national and European objectives."[275]

Similar to Scotland, Austria's authority kept climate aspects decisive, when carried out the interest comparison in the SK Gries water permit consideration. It started its deduction with reference to Salzburg's 'Renewable Energy Expansion Act' (Sbg NSchG 1999), formed as

[270] See *SEPA* 2016, p. 5; also, *European Commission* 2017, p. 56-58.
[271] *SEPA* 2016, p. 6.
[272] *SEPA* 2017b, p. 43.
[273] *SEPA* 2016, p. 5.
[274] *Federal Ministry of Agriculture, Forestry, Environment and Water* 2012, p. 31-31
[275] *Austria's State government* 2013, p. 203.

part of the provincial climate protection strategy, which the authority held compatible with the proposed hydro power project.[276] Further, it connected increased production of renewable energy by projects like the Gries, as "[O]ne of the priority objectives at worldwide, European, Austrian and Salzburg Level, which is currently pursued by 20-20-20 targets, […] and in particular […] Directive 2009/28 / EC of the European Union." And continued deduction: "Against this background […], especially in connection with the constantly increasing importance of renewable energy and maintaining the energy supply associated with the present project, it is essential to the public interests […]." accordingly, the Authority held, the benefits for health, safety and sustainable development would outweigh the benefits, which would be achieved in case of pursuing the environmental objectives in accordance with the WFD.[277]

Despite the certain emphasizes, in order to balance between different interests in project permitting, Scotland's intention is to encourage through regulation *integrated solutions*, rather than *trade-offs* between climate and environmental protection regimes (Environment Act 1995 section 31). With legal basis on the Environment Act 1995 and The European Commission's Communication ''Towards a Thematic Strategy on the Sustainable Use of Natural Resource'[278], the Scottish Ministers had issued the statutory guidance, in which is set forth: "[S]ustainable development is promoting integration [which] will not be achieved simply by weighting up competing interest," and therefore in all kind of measures shall be aimed to have a regards on all estimated impacts.[279] The balancing dilemma is not solely characteristic for the water resources management, but the conflict is discussed also in wider scale, in attempt to enhance climate change mitigation through natural resources management.[280] Example, in respect of the EU Directive on carbon capture management (Directive 2009/31/EC) is initiated the proportionality principle to accommodate the interest

[276] *Austria's State government*, 2013, p. 200-203.
[277] Moreover, in the concluding account was interesting, what the authority kept notable in respect of public safety. Namely, it kept meaningful, the bank structures would protect the nearby railway connection from erosion and wetting of the railway embankment through improved groundwater level, and drainage system management. Therefore, it was held the option would makes a significant contribution to the safe operation of the Train.
[278] COM (2005) 670 *final*.
[279] Statutory Guidance to SEPA made under Section 31 of the Environment Act 1995.
[280] See example: *Tengberg – Valencia 2018*, p.1845-1857.

balancing duty in balancing environmental and climate impacts of carbon capturing.[281] However, most of the times in legal solution seeking the decision shall err on either side despite aims to balance expected outcomes, and therefore, norm premise formatting has been argued to be often especially delicate within environmental regime.[282]

Scotland has attempted to solve the balancing issue by acknowledging, proposals which are authorized in accordance with Article 4.7, are 'likely to breach statutory threshold values, set out in the Scotland River Basin District (Standards) Directions 2014', and therefore the question is rather, what is the accepted margin of harm the community is expected to tolerate as barter trade in order to achieve the desired benefit.[283] Taking basis on this remark, the Scottish regulator has taken a view, in permit procedure has to decide whether a proposal represents sustainable development, despite causing the carrying capacity stress on the affected part of the water environment. In order to carry this evaluation out, Scotland has thereof set instrumental value on 'environmental carrying capacity', as it has characterized it to:"[P]rovide an important link between environmental protection and sustainable development."[284] In this method applies a view, the water environmental standards have set so as to define the mandatory (minimum) conditions to protect habitats, against tolerable adverse impacts shall be reflected.[285]

5.3 Mitigation measures practicability

Next, in order authorize the HP project, for the authorities in both reference states came topical to address if: "All practicable steps are taken to mitigate the adverse impact on the status of the body of water" (The WFD Article 4.7 para. 2 subpara. (a)). In this exercise is possible to recapitalize, under both jurisdictions statutory and state-of-art soft law requirements form the legal content of the provision.[286] Before addressing the concrete obligatory measures the reference hydro power projects embodied, it is reasoned to

[281] Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006.
[282] See example *Määttä*, 2005; *Hollo* 2016, p. 6-9.
[283] *SEPA* 2017a, p. 26.
[284] ibid. p. 25-26.
[285] Conceptions of Value in Environmental Decision-Making: *O'neill & Spash* 2000.
[286] Shifting paradigms of Environment law; *Gunningham* 2009; Regulatory pluralism: *Gunningham – Sinclair* 1999, especially Chapter III. See also EU Harmonisation and Soft Law in the Member States: Falkner et al. 2015; Soft law within the first pillar of the EU; Senden 2004.

systemize and compare both regions interpretation concerning the key concepts of the provision.

Concerning practicability of the taken measures, Austria seems to lean essentially on the EU Law sources. The competent authority points out in the SK Gries permit's general reasoning the fact; in accordance to the EU case law, the mitigation/restoration requirements by virtue to the WFD Article 4.7 para. (a) consist *primarily of negative impacts reduction*, rather than *compensative action obligations*.[287] The authority continues deduction with reference on the judgement, that was at hand in Austria's domestic court in Gössendorf / Kalsdorf -case.[288] Namely, in the case court was asked to evaluate, if proposed ecological mitigation measures in issued the hydro power plant's water permit were sufficient in relation with de facto available means.[289] The case was relevant in respect of the SK Gries permit consideration, as the complaint did not succeed, due the court's acknowledging the view, difference shall be made between the two; compensation and mitigation.[290] Further, it was emphasized, that the aim in hydro power development is not to *eliminate all the actualized harm*, but rather, that the content of the requirement is to *minimize and integrate different interest*.[291] In its consideration the water authority noted, this approach shall be applied, when evaluating practicability of the restoration/mitigation measures in hydro power projects by virtue of the WRG section 104a (para. 2 subpara. 2) and adjust the level of mitigation accordingly.[292]

Whereas in Scotland, the interpretation seems to lean essentially on preconditions, set forth for in Article 4.7 (d) 'significantly better environmental option' requirement. This can be argued, as the regulator has outlined: "[P]racticable mitigation measures are measures that are: technically feasible, do not entail excessive cost, and will reduce adverse impacts on the water environment."[293] Therefore, it seems the practicability shall be reflected against the same threshold requirements, *feasibility* or *disproportionality*, as the 'significantly better environmental option', which interpretation in Scotland is further assessed in Chapter 5.4.[294] On top of these characterizations, SEPA has defined, it will normally expect practical

[287] Austria's State government 2013, p. 19; See the CJEU case C‑521/12.
[288] Austria 's Environmental Senate 23.12.2008 nro. 83/01 Gössendorf / Kalsdorf..
[289] *Gössendorf/Kalsdorf* -case, 2008.
[290] *Gössendorf/Kalsdorf* -case, 2008. Rec.
[291] *Austria's State government* 2013, p. 198.
[292] ibid.
[293] *SEPA* 2017a, p. 22.
[294] Cost-benefit analysis and the water framework directive in Scotland: *Hanley – Black* 2009, p. 156-165.

measures to include sectoral best practices, reducing derogating effects of 'a particular type of activity.' But on the other hand, to take into account local circumstances, 'which may make such techniques infeasible or excessively costly.'[295] For these purposes the regulator has issued in collaboration with sectoral experts and industrial representatives created state-of-art guidance, to assist in sites sustainable planning.[296]

Concerning the both regions, the statutory minimum standard of mitigation in hydropower sector seems to consist of river fragmentation and flow depletion measures, and the adequate means to comply with statutory requirements, which compliance is assessed in water permit procedure by reflecting the case at hand on environmental standards.[297] In Scotland, the minimum standard is set out on the basis of the CAR Act, which determines; all hydropower projects shall be authorized either through complex or simple license procedure, and consequently, through applicable authorization procedure and state-of-art technology, the level of mitigation measures and scale of them to the large extent (The CAR Act section 8, The Water Environment Regulations 2013 schedule 1). As a starting point for the adequate mitigation evaluation is determined, all developers has to take standard river flow and fish pass measures into consideration, unless there is an evident they are 'unnecessary because of the site characteristics' or 'equivalent mitigation can be reached by other means'.[298] As an example, in the Glen Noe derogation decision case the competent authority ruled, concerning the river flow the practical mitigation measures within the meaning of the Article 4.7. para. (a) shall include; measures to protect low and high flows, flow variability and protection of flows for upstream fish migration and spawning.[299] The measures were set in accordance to the reflection, in the project were absence reasons, which would indicate to review the minimum level of mitigation standards either tighter or less ambitious.[300]

In Austria, it is set out all the permitted projects shall comply with the state-of-art technology (The WRG Act section 12 and 13), which the authority has defined towards the HP installations to include; fish passes, as well as ecological and environmental flow mitigation

[295] *SEPA* 2017a, p. 22.
[296] See: *SEPA* et al. 2018; *SEPA* 2015.
[297] *Scottish Government* 2014; *Scottish Environment Protection Agency* 2015 p. 10-21; *Koller-Kreimel* 12.9.2018, p. 6-8.
[298] *SEPA* 2015, p. 14.
[299] *SEPA* 2016, p. 2-3.
[300] ibid.

measures.[301] If the environmental objectives are not achieved by the state-of-art technology, can the competent authority require to achieve the intended level of protection by imposing or either temporarily or permanently suspend the operations in order to prevent possible damages (The WRG section 21a). In addition to statutory provisions, to assist in the mitigation measures adequate level evaluation beyond the requirement laid down in the WRG, the water authority utilized guidance documents, set out by the regulator in collaboration with the HP sector stakeholders. Expressly, the above introduces Catalogue of Measures and the Water Catalogue assist in determining efficient case-specific measure, to mitigate negative impacts on a water body.[302] This is aimed to carry out by setting criteria for sustainable hydropower projects in the latter mentioned, and by determining adequate mitigation measures in regards of typical hydro-morphological alterations of HP projects in the Catalogue of Measures.[303]

Regardless the aforenoted similarities, the both jurisdictions embody their own characters. In Scotland this originates from the above discussed riparian water rights history and common law tradition, which straddles also on mitigation measures application.[304] In more details, Scotland's water rights system can be kept highly restrictive, and according to the case law, downstream owner has a right to have the water transmitted: "[U]ndiminished in quantity, unpolluted in quality, and unaffected in force and natural direction and current, except in so far as the primary uses of it may legitimately operate upon it within the lands of the upper heritor."[305] It follows, each landowner along a river has a 'real right' in upstream, meaning, ownership of land will entitles the possessor to object an operation, which substantively interferes the flow of the river.[306] For this reason, in the mitigation has to de facto often take into consideration mitigation beyond the statutory requirements, as it can be precondition for gaining the consent from other land owners.[307]

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[301] *Federal Ministry of Agriculture, Forestry, Environment and Water* 2017.
[302] *SEPA* 2016, p. 4.
[303] *Dr. Veronika Koller-Kreimel*, 26.7.2018; See *Federal Ministry of Agriculture, Forestry, Environment and Water* 2017; ibid. 2012.
[304] See John Bicket v. James Morris and Wife, (1864) 2 M. 1082 (Morris v Bicket case); Water Rights at Common Law more broadly: *Getzler* 2004, especially p. 268-328.
[305] ibid. at p.1092.
[306] *Robbie* 2017, p. 2.
[307] See *Scottish Government* 2006, p. 4.

Whereas, Austria's application of practicability requirement seems to interlinkage assesment of 'significantly better environmental option' on it.[308] This might be explained, as the reference case was EIA liable, and consequently, the permit authority had to considered 'practicability' in relation with different possible execution alternatives.[309] In practice, available measures appraisal was carried out in the SK Gries case by creating a list of relevant mitigation measures, in accordance with the above two sustainable hydro power development guidance documents. The possible measures where then considered in respect of four proposed EIA alternatives, of which the inadequate ones were eventually rejected based on eleven expert statements.[310]

Therefore, the minimum environmental standards can be seen to form baseline for the legal evaluation of practicability in the reference states in sectoral context, as the adequate level of mitigation is reflected against them. On top of that, the project specific level beyond minimum level is adjusted through flexible norm premises.[311] This is typical for the EU water regime[312], due the need to maintain certain level of 'flexibility' in order to develop dynamic environmental policy, having regards on diversity of geophysical circumstances, and regional differences the climate change brings along.[313] For this reasons, the selected line in Scotland and Austria can be seen to reflect adaptive management regulation, commonly used example on zoning regime in attempts to enhance climate change adaption. The approach combines traditionally both; regulatory and planning law approaches, and autonomous and private adaptation measures, in order to balance between obligatory and flexible norms. The approach reflects reference states regulation concerning mitigation measures, as in both of them is possible to distinguish practice, in which the applicable norm is formed in reciprocal procedure; meaning, the adequate technical level is started to form in

[308] See *Austria's State government* 2013, p. 198.
[309] EIA assesment see: *European Commission* 2017, p.51-55
[310] *Austria's State government* 2013, p. 203-205.
[311] Usage of flexible norms is characteristically for the WFD regime. It is initiated, the adaptiveness of rules presumes, that assessments and monitoring are prescribed to obtain reliable and up to date information for decision-making in a changing environment. See *Baaner* 2011, p. 82-100; also *Keesen* 2012, p. 46-47.
reliable and up to date information for decision-making in a changing environment.
[312] See example: The Water Framework Directive, the Flood Directive and the Water Scarcity and Drought Strategy (COM (2007) 414).
[313] *Smed* 2010, p. 287-301.

early phase of a project (usually already before final decisions concerning project plans are made) in collaboration with the economic actor and the permit authority.[314]

To recapitalize, the official guidance documents and non-jurisprudential professional statements behind them in both possess significant legal relevance. This is, as it is de facto virtually obligatory for both; the HP developer and the competent authority to take them into consideration in scheme planning, example when considering mitigation measures beyond minimum environmental standards. Ultimately, practicability of measures seems to be defined in the WRG permit process through external expert opinions.[315] However, difference between the SK Gries and the Glen Noe procedures were the amount of addressed project alternatives, and respectively initiated practicable mitigation measures. This means, the content of 'practical steps '-requirement leaves relatively high state of consideration of the matters of law for the competent authority.

5.3 Alternative options consideration

The third substantive requirement for the exemption clause is, that for the proposed project is not available *significantly better environmental option.* The determining conditions for the better option are in accordance with the WFD; the alternative shall be *technically feasible* and shall not constitute *disproportionate costs* (The WFD Article 4.7 (d); The WRG section 104a para. 2 subpara. 1; The Water Regulations 2013 section 8 para. (c)). To grasp overall characters of the provision's substantive characters, it is of importance to study, how these two concepts are defined in the reference states.

In the SK Gries permit's general remarks Austria's water authority started by determining, other options consideration shall comply with the CIS Guidance Document 20, thus, underlining above-mentioned interpretation in conformity with European Union law.[316] Concerning *technical feasibility*, the bottom line for statutory level of environmental measures formed of state-of-art requirement (the WRG Act section 12 and 13), based on a case specific norm in accordance with soft law guidance documents.[317] In this respect is worth of noting, it follows, by virtue of Austria's regulation the above two technical

[314] *Godden – Kung* 2011, p. 4061-4062.
[315] *Austria's State government* 2013, p. 198-200, 203-205.
[316] *Austria's State government* 2013, p. 198.
[317] *Dr. Koller-Kreime*l 14.9.2018; Norm premise formatting through environmental law soft law instruments; *Määttä,* 2005.

solutions constitutes complying conditions in all HP projects, regardless diversity of on-site circumstances.[318] And furthermore, the Measure Catalogue which the authority uses in its consideration determines measures based solely on *hydro-morphological* quality elements, therefore assigning significant legal weight on them.[319] Also, in this juncture is good to point out, concerning evaluation between different environmental options, in the Austria's Water Catalogue is noted; regardless the 'practical steps taken' and 'significantly better environmental option' can be seen to incorporate parallel elements - especially in respect of 'practical' and 'feasible' technical conditions assessment – the conditions assesment cannot still be replaced by one another.[320]

Secondly, in respect of economic practicability, the Water Catalogue set out an instruction to evaluate estimated *average* economic implications of measures, thus taking official stand on 'proportionality.'[321] To provide an example, on the catalogue Table 6.2-13 is evaluated, removing of migration barriers costs averagely 24.000 € / hm, and therefore can be delivered and argument, if the estimated costs in site exceed the given value (significantly?), the measures can be deemed as inadequate due unproportionable costs concerning a proposed location.[322]

Thirdly, decisive in the provision's application is doubtlessly the concept of an "option." In this matter the authority took a view in the SK Gries permit with reference to Oberleitner / Berger[323] -case, that 'an option' within the meaning of the WRG section 104a is present, if a comparable analyze indicates, 'realization of beneficial effects can be achieved by other means.'[324] In more details, if the mean can guarantee targeted environmental implication, it may represent 'better option', provided, however, it meets the other decisive requirements within the meaning of Article 4.7 para. (a).[325]

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[318] See example *McCully,* 2001; Effects of hydropower generation in riverine ecosystem: *Renöfält – Jansson – Nilsson* 2009.
[319] It is true, in accordance with the Directive, the hydro-morphology is the principal QE, however, when determining conditions for complex installations such as HP plant, it can give yksipuolinen perspective. See also *Federal Ministry of Agriculture, Forestry, Environment and Water* 2017, Chapters 4-6.
[320] *Federal Ministry of Agriculture, Forestry, Environment and Wa*ter 2012, p. 203.
[321] The principle of proportionality in European law in more details: *Ellis,* 1999, p. 1-23, 50-52.
[322] *Federal Ministry of Agriculture, Forestry, Environment and Water* 2017, p. 40.
[323] Austria 's Environmental Senate 05/12/2012 nro. 18-245 Oberleitner / Berger (Oberleitner / Berge -case).
[324] ibid. Rec. 6.
[325] *Federal Ministry of Agriculture, Forestry, Environment and Water* 2012, p. 203.

The main principle in assessing whether an alternative option fulfils the requirement of 'significantly better option' is according to the Scots regulator, to compare the significance of the adverse environmental impacts associated with the proposal, in contrast with the significance of those associated with the alternative option(s). In Scotland is defined, an alternative execution solution may represent 'better option' if the benefit it delivers is *at least equivalent* to the benefit that would be delivered by the proposal. The suggested alternative's environmental cost has to be *significantly less* than the environmental cost of the proposal, and to be *economically viable* and hence *a realistic option*."[326] Only practical issues of a technical nature should be taken into account in applying the technical infeasibility test. In other cases, there may be practical techniques which, in principle, could be used to comply with the proposed variation but would be technically infeasible to put in place in time. To grant the grounds for the decision is outlined, alternative options appraisal is not required if the improvements are 'likely to be resulted by advantaging standard good practice' (state-of-art technology) in the sector in question, or in case it is evident the option would be most cost-effective on the site in question. Concerning the latter, the regulator has kept as an example a situation, in which the proposal is possible to evaluate based on past experience of similar circumstances.[327] Doubtlessly, the deduction is attempted to streamline governance of the exemption procedure, however, one may ask if it is in line with the Commission's instruction. To elaborate, as noted earlier, the consideration shall be conducted primarily on case by case basis, and hypothetically speaking it is hard to come by easily with two river ecosystems, in which the habitat and other environmental conditions would be analogically similar.

In respect of inappropriate costs, it is determined by the Scottish regulator, they shall be evaluated per se, and in relation with the technical practicability. In general consideration the operator had to set out an account, in which is assessed the project in three senses; consider the available options and improvements; identify which of the options would be the most cost-effective, and estimate the costs associated with the most cost-efficient option. The expressed account is evaluated based on two principles; on the basis of the balance of

[326] *SEPA* 2013, p.6; SEPA will assess the environmental cost of a proposal by identifying the significance of the proposal's adverse impacts using the method set out in WAT-SG-67: Assessing the Significance of Impacts - Social, Economic, Environmental.
[327] *SEPA* 2013 p. 26.

costs and benefits involved, making the improvement would be worthwhile; and if requiring the operator to make the improvement would impose unfair and unjustified burdens.[328] Given, the proposed technical solutions shall be based on the general state-of-art instruction catalogue, the operators are competent to express an account for the authority, if a particular option is technically infeasible; and if the relative cost-effectiveness of different options is likely to be technically more feasible.

When observing the above preconditions application in practice is notable, the possible EIA liability determines the procedure essentially. The both reference cases were evaluated though the EIA procedure, but against this backdrop would be interesting to find project, which regardless non-impact assessment liability, would been considered to fulfil the exemption clause requirement. However, in the Glen Noe case the applicant considered alternatives, involving initial review of locations throughout Scotland. In this account were included water bodies with hydrological regimes that have the potential for generating similar amounts of electricity. In an iterative development these variations were considered, subsequently discounted or approves on the basis of environmental, technical, financial or practical reasons.[329] Concerning the option not develop a project, the EIA report referred Scotland's central and local government policies, which support the development of renewable sources of energy.[330] However, in the actual permit document the authority go through assessments SEPA is required to conduct due the likely adverse impact on the water environment. In this account the permit authority does not set out, the project would be liable to assess alternative options to enhance environmental implications or comment the EIA report's compliance in any means.[331]

On the KW Gries case the alternative options evaluation was incorporated in the Environmental Impact Assesment procedure, and the "comprehensive alternative review" ('Eine Umfassende Alternativenprüfung') was conducted between four alternative site and design options.[332] The sufficient comparison of plant designs encompassed weighting of available options 'A-D' in two scales; within a broader scope (e.g. between plant and site

[328] *SEPA* 2013, p. 30-32.
[329] *RWE Innogy UK Ltd* 2015, p. 2-1 – 2-2.
[330] ibid. p. 2.1.
[331] *SEPA* 2016, p. 4.
[332] *Austria's State government* 2013, p. 203.

types), and secondly, in narrower context, referring example on different technological solutions concerning a specific plant model. [333] However, basis on the KW Gries permit is not unambiguously clear, in how detailed level the comparison between different off-site alternatives ('A' and 'B') were conducted. Instead, more significant weight was attached on comparison between two alternative options on the principal site option.[334] Between the two on-site alternatives ('C' and 'D') the authority kept notable first and foremost, both initiated alternatives would influence the surface water body, which was designated as a heavily modified.[335] Moreover, it had relevance, only one of the on-site alternatives would have an adverse effect on the lower river stretch, and that neither of the plans was not evaluated to hinder the achievement of the GEP objective in long run. It was held, solely based on the above facts could not be decided, if neither of plans would present 'better' option within the meaning of the Directive, and therefore, the observation had to extend on other available fact premises.[336]

Concerning available technical solutions, the State government considered next, that in evaluation of design variants was weighted execution between a bollard power plant and matrix turbine system, in which was ended on the previous mentioned, due increased energy *efficiency, and sustaining sediment implications*. Furthermore, in the consideration the authority kept meaningful the fact, the project plan was reviewed after the original submission, due the on-site conducted ecological assessments. Namely, the first initial review carried out by the authority indicated, the chief project plan would not constitute all relevant environmental measures, set out in accordance with the Measure Catalogue, and therefore would not represent 'the best available option' in respect of environmental impacts. Consequently, the HP operator made the indicated changes, to comply with better with the conditions.[337] In this exercise is possible to note, the procedure emphasized dynamic interaction between the HP company and the permit authority in order to co-create the applicable norm. Based on this one might argue, in certain projects in the starting point of a

[333] Austria's State government 2013, p. 203-204.
[334] ibid. p. 204.
[335] ibid. p. 202-204.
[336] ibid. p. 204
[337] ibid. p. 203-204.

permit consideration the most suitable option in respect of environmental impacts is unknown, and the legal solution is formulated over the course of the permit procedure.[338]

Finally, in the conclusion the authority kept decisive between the two initiated options the project's estimated climate impacts. Expressly, it held the option which would represent the best environmental alternative, was the one with the highest fall height. In more details, the difference between two initiated on-site options would lead alternatively either on 8.85 MW or 6.6 MW annual energy production. It was calculated by the permit authority, the difference would result 28 per cent savings on CO2 emission, comparing the 8.85MW option on smaller installation. The authority continued reasoning, as renewable energy production is in HP projects one of the *principal objectives,* thereof the variant, which would constitute smaller increase in energy production cannot represent better, and 'certainly not' *significantly* better environmental option.[339]

[338] About legal solution's formatting theory: *Syrjänen* 2008, p. 21-42.
[339] *Federal Ministry of Agriculture, Forestry, Environment and Water* 2012, p. 204-205.

6. CONCLUSIONS

The thesis examined Finnish and two reference jurisdictions river basin management legislation regarding the WFD Article 4.7 exemption clause. The subject was addressed first by assessing Finnish national legislation, and secondly, by presenting a case study of hydro power authorization in Scotland and Austria. The main objective of the thesis was to examine how the Member States regulate and apply substantive conditions under water law to integrate and balance measures in accordance with EU environmental and climate objectives in renewable energy projects. Subsidiary questions were asked to examine clauses application in Finland, and how Austria and Scotland have implemented clause's procedural regulation. Ultimately, it was assessed whether the cases can be used as references on Finnish water law reform.

The presented study gained momentum on the recent EU court judgements. It was argued, there is a pressure to develop river basin management regulation in Finland especially regarding threshold and practices to trigger Article 4.7, to comply with the EU law as well as line of the above CJEU decisions. In hydropower projects context the subject was essential to address, as the European Commission has called more comprehensively balance striking between environmental and climate regimes on new renewable sites development due increasing pressure on capacity additions. Given, if exceeding certain scale, hydro power projects have virtually under all circumstance's implication on water habitats, meanwhile the Member States shall prevent water status deterioration, to achieve good ecological status/potential in water bodies as well as strive for sustainable energy production, public interests balancing in new renewable energy project is of importance to address.

The concluding remarks will further highlight the main three findings, by discussing reference states regulation in contrast to Finnish regulative framework, and describes conclusions drawn from the legal comparison. The lessons could be relevant for future legal research in Finland, bearing in mind at the time of writing prevailing discussion on Finnish water law revision.

6.1 Procedural remarks: Effective implementation of Article 4.7 exemptions requires The River Basin Management revision in Finland

The thesis concluded, procedural regulation on the Finnish river basin management is partially unclear and shall be revised. Basis on the literature analyze can be argued, current enactment regarding the exemption constitutes regulative obstacles on clauses application in two procedural senses; first, concerning the exemption's inclusion in the river basin management plan, and secondly, the permitting schemes under the Water - and the Environmental Protection Act. Namely, current legal state, in which Council of State has the competence to rule about project-specific exemption simultaneously with the RBMPs adoption gives rise to the question, in which phase of the project planning the exemption shall be made, and what is process's relationship with water and environmental protection permits? And further, can an exemption proposal be authorized before the required account is delivered in the river basin management plan. The vagueness in regulation was reasoned at the time the WFD was transposed in Finnish law and since it was perceived mainly as a water resource management planning instrument, rather than binding enact which requires legal consideration to exempt from the objectives laid down by it.

In procedural law point of view in reference jurisdictions was found out, they have transposed the exemption instrument in water law, and it gaines legal effect through water permit procedure. Concerning timing of the exemption application in Scotland and Austria the exemption is incorporated and shall be assessed simultaneously with the water permit issue (The WRG section 103 and 104; the WEWS Act 55). In regards of the second development point in Finnish procedural regulation, it is indicated clearly in both case jurisdictions, the exemption shall be explained in the river basin management plan, or subsequently in the next update of it (The Water Environment Regulations 2013 section 8 and 9; The WRG sec. 55c para. 2. subpara. 5 and sec. 106.)

As a feasible way to reform the enactment was suggested, the competent permit authority under the Water Act and Environmental protection Act could be entitled to address the exemption simultaneously with the permit issue. This view supports the fact, the exemption consideration includes consideration of the matters of law, and henceforth, the competence could be assigned to the licensing authority. The model would enable also dynamic authorization procedure - emphasized in the both case regions - in which the substantive

norms would be formed in collaboration with the permit authority and the economic actor.[340] Also, on the present study can be drawn an argument, the share of competence may align to the larger extent with the EU law than the current order, in which the Council of State passes the RBMPs and simultaneously decide on the exemptions. Second option would be, a project specific exemption's approval would fall into competence of 'the water resources management authority' which would refer in Finland either on the Council of State, or the ELY Centre. In this model, the exemption issue would be resolved by request of an economic operator, and it would be precondition for authorization under the Water Act and the Environmental Protection Act.[341]

6.2 Threshold for the exemption clause's application in the Member State level

Second key point delivered by the present thesis was, threshold for the exemption clause to be triggered varies in the Member State level, and that formatting of the Finnish River Basin Management Act directs on strict verbatim interpretation of the provision. Finnish requirement for the exemption in this respect is, it shall fulfil two requirements*; a major new project physically modifies a body of water* in addition that *the project is very important with regard to public interest and promotes sustainable development, human health or public safety in a significant way* and based on the literature analyze was concluded, this may raise barrier for the provision's application relatively high comparing on the original formatting of the Directive.[342] Moreover, it was adduced, current order in which the Council of State assess the potential cases, raises further legal content of above two requirements in interpretation of the clause in authorization procedure.

The comparative study saw, one of the main reasons of differences between level of threshold in the case jurisdictions originated from the fact, the WFD environmental objectives are stipulated as binding environmental standards to guide water policy measures execution in national context and entitled competent authority's interpretation on overriding public interest - health, safety, sustainable development requirements. To elaborate, in both

[340] See *Council of State* 2018, p. 30, 62-63.
[341] See *Council of State* 2018, p. 62-63.
[342] Despite overriding public interest and significant new project requirements cumulative interpretation is not enclosed in the Directive formatting, the MS is entitled to stipulate higher environmental standards than constituted by the EU legislation, but it is a matter of discussion if this has been a purpose in the RBM Act formatting in Finland.

reference cases the competent authority to assess the conditions, subject to the WFD Article 4.7 was defined on the basis of the water permit regulation, and authorization of a project, that may have significant adverse impact on a body of water is denied, without the exemption conditions assessing.

In Austria, the water management planning body address primarily all water permit issues, including the exemption, together with other competent expert bodies. Whereas in Scotland, in case of an application to carry out one or more controlled activities, which Scotland Environmental Protection Agency considers having a significant adverse impact on the water environment, it is the competent authority to address the application. Concerning the public interest requirement, Austria follows cumulative interpretation, meaning, it assesses both; if the project embodies overriding public interest, and if the adverse effects outweighed by benefits to human health, human safety or sustainable development. In all projects subject to the national water law (the WRG) is assessed, if it may contravene any of the 'public interest' conditions. In case it does, it can only move forward through the exemption. Whereas, in Scotland the permit authority has set out, the potential projects within the meaning of the exemption clause are addressed chiefly with legal basis on the interest comparison provision. In other words, Scotland has defined to use in the clause's application exclusive interpretation, meaning, the above two conditions can be alternative options for project's authorization. In this juncture SEPA has even characterized: "In practice, for most proposals judged acceptable, the reason will be because their adverse impacts are outweighed by benefits to human health, human safety or sustainable development." And furthermore:" The vast majority of proposals will not be of overriding public interest." It was concluded finally, both reference states held climate implication as the main reason to deem a hydro power project compatible with the overriding public interest requirement.

Concerning other substantive conditions, content of the exemption clause found to be formed in combination of standard level of environmental protection, and case specific supplementary measures, which were adjusted case specifically by the permit authority against national soft law instructions. In case studies these obligatory practical mitigation measures consisted of statutory fish passes and river fragmentation prevention, which were supplemented with case specific state-of-art technology.

On light of the case studies and legal literature analyze was concluded, there is at least two possible ways to review the RBM Act to adjust the threshold on the exemption provision's application. Against the findings a feasible alternative to revise the RBM Act would be to review the formatting of the interest comparison provision so as to enable the permit authority to use overriding public interest and interest comparison provision as alternative options. In respect of substantive requirements appraisal, Austrian case-specific evaluation emphasizing approach would be an adequate way to ensure comprehensively environmental objectives consideration in project permitting. In any case, Finland should follow the reference states, and engage hydro power stakeholder more actively to develop instruction concerning not just the exemption, but as well to share best practices and develop sustainable water resources management regulation through state-of-art standards.

6.3 Article 4.7 - Member States legal instrument to balance EU environmental and climate policy objectives in national level

In the Weser and Schwarze Sulm cases the CJEU held, the Member States shall interpret the WFD environmental objectives bindingly, and secondly, renewable energy projects may fall in scope of the exemption article 4.7. Against this backdrop, given the Court's line deviated drastically from the manner Finland implemented the derogation provision, deemed of importance to compare; how other member states which have followed binding interpretation have applied the exemption provision.

The present paper indicated; the reference regions practices concerning the exemption clause convey with the Court's line and treats it as a regulatory instrument for different regimes objectives balancing in authorization process. The environmental objectives were adopted as statutory standards, when the Directive was transposed in Austria's and Scotland, and authorization of a project that may have significant adverse impact on a body of water is denied, without the exemption conditions assessing. Moreover, the comparative study showed, the exemption clause is important instrument to balance hydro power industry's environmental and climate impacts, in case a proposed development meets the required substantive conditions. It was found, the regulators in the reference states has set out unanimously concerning the presented permit cases, reason to apply the exemption clause was to ramp up renewable energy production, in order to pursue EU Climate targets, as well as other international commitments. Moreover, it was notable the regions had applied the

clause solely on hydro power cases, and in substantive conditions normative state determination was emphasized cross-sectoral collaboration with stakeholders, to balance interests between regimes.

One of the key perceptions were, in the both cases the regulator held decisive climate implications, achieved if conducting the proposed renewable energy development. The case study adduces; renewable energy projects can, in accordance with the regulator in the reference states, fall into scope of ‘overriding public interest’ requirement, meaning, legal content of the provisions was interpreted inclusively to enable flexibility and to encompass different type of measures to scope of the authorization consideration. The case study revealed; despite the public authorities had put significant weight on EU climate objectives, such as Paris Agreement, in authorization consideration and permit decision reasoning, equal legal weight was indicated to be attached on the water protection, and respectively, cases were addressed in relation with high standard of water protection.