WATER FRAMEWORK DIRECTIVE:
A reductionist implementation of a systems directive

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Abstract

The introduction of the EU Water Framework Directive in 2000 aimed to deliver a shift from fragmented water management, focusing on point source controls, to a more holistic approach integrating all parts of the wider environmental system. The Directive is systemic in intent, as articulated in its Preamble and Article 1, and offers an integrated and coordinated approach to water management in Europe based on the concept of river basin planning. Acknowledging that catchments are different in terms of both socio-political and natural conditions, it signified a shift towards the need for their integrated understanding as a system. This is embodied in both the ecological status classification (assessment of system performance) and the process of selecting appropriate measures to manage pressures and reduce risks.

While it is widely accepted that it is too soon to assess the effectiveness of the Directive with any degree of certainty, it is also clear that Member States are still finding it challenging to implement, with only 53% of EU surface waters reaching good ecological status in 2015 – a central objective of EU water legislation. Putting aside the daunting technical and organisational challenges of its implementation, the paper demonstrates that some misinterpretation of the new concepts introduced by the Directive, are limiting its potential to deliver environmental benefits.

In this regard, the Directive provides an interesting case study, not merely in terms of how systemic principles are included, to some extent, but also how they can be lost through legislative prescription and transposition, through measures of compliance, through interpretation and consequently through implementation. The role of ecological status as a *performance indicator,* the need to ensure that PoMs should improve system state by managing pressures, and improved participation to promote interdisciplinarity to address the complex issues associated with water management, are examples of this.

Implementing the WFD like any other directive is not going to work. Although the WFD is undoubtedly a major policy progression and is delivering environmental improvements, unless implementation efforts are reviewed or revised in light of this departure from its systemic intent, the main outcome of its implementation might be producing comparable pan-European data sets for catchments that because of ecological variability cannot be compared. As a result, there is a clear need for complexity to be understood and to remain dynamic, adaptable, and resilient. The need for a paradigm shift towards systems thinking is therefore a prerequisite for the successful implementation of the WFD,