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## INTERINSTITUTIONAL RESPONSIBILITIES IN MANAGING WATERCOURSE INTERVENTIONS AND THE NEED FOR UNIFIED MANAGEMENT

BY

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**Abstract.** This paper examines the interinstitutional responsibilities involved in managing interventions on watercourses, highlighting the need for a unified approach to ensure efficient and sustainable water resource governance. Watercourses are critical for environmental, economic, and public safety, but their management often involves multiple institutions with overlapping duties, leading to inefficiencies and gaps. The report outlines the roles of key stakeholders, including environmental agencies, local authorities, and regulatory bodies, and emphasizes the importance of clear responsibilities and strong collaboration. It advocates for integrated management systems that streamline decision-making, reduce bureaucracy, and align interventions with national and EU water policies. The report also proposes collaborative platforms for sharing data and best practices, and calls for joint action plans to improve institutional coordination. Ultimately, it recommends establishing a unified framework to enhance the effectiveness, transparency, and sustainability of interventions on watercourses.

**Keywords:** managing watercourse interventions, unified management.

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## 1. Introduction

Due to increasing pressure on natural resources, protecting and sustainably managing watercourses has become a central objective in environmental and infrastructure policies. As a member state of the European Union, Romania is obliged to implement integrated water management policies in line with the Water Framework Directive 2000/60/EC.

According to the Expropriation Law no. 255/2010, the development or protection of water infrastructure is explicitly recognized as a matter of public utility, enabling the competent authorities to implement expropriation procedures in order to secure the necessary land for projects of strategic importance (Law no. 255/2010, Law no. 287/2009).

At the same time, domestic legislative realities and the urgent need to develop infrastructure (motorways, flood protection works, hydropower plants) place administrative and legal pressure on the responsible authorities. Authorities often face tension between the legal obligation to obtain permits for interventions on watercourses and the political push for swift decisions. This is especially evident when works are promoted as projects of national interest.

According to the Romanian Constitutional Court, the management and regulation of natural resources, including watercourses, represent exclusive public responsibilities of the State, requiring consistent administrative oversight and legal compliance to safeguard public interest and environmental protection (Romanian Constitutional Court, 2025).

This report aims to identify functional and legislative contradictions between:

- the special water regime (which requires unified management by ANAR);
- the general urban planning regime, regulated by Law 50/1991 and related construction legislation;
- the expropriation regime for public utility.

It also offers concrete recommendations to enhance institutional coherence and prevent harmful interventions on aquatic ecosystems.

Any omission may lead to administrative liability. In some cases, it can also result in the annulment of administrative acts (Mușcalu *et al.*, 2025).

Recent research demonstrates that updating climate baselines can profoundly reshape risk evaluations and prediction reliability (Wang *et al.*, 2023).

## 2. Unified management of watercourses

According to the Water Law no. 107/1996, watercourses are part of the public domain of the Romanian state and are regulated as assets of strategic national interest. The law establishes the principle of “single and unified

management” through the National Administration “Romanian Waters” (ANAR).

ANAR is the technical authority responsible for:

- issuing water management permits and authorizations;
- supervising works built on or related to water bodies;
- implementing River Basin Management Plans (RBMPs);
- enforcing corrective or sanctioning measures in cases of illegal interventions.

ANAR's authority stems from the Water Law. It is also grounded in international commitments and European directives. The law stipulates that no intervention on riverbeds, banks, protection zones, or water quality may be carried out without ANAR's approval, even in cases where a building permit is not required (Law 50/1991, Article 11).

The unified management of water resources ensures:

- national coherence in the implementation of environmental policies;
- protection against natural hazards (floods, erosion, droughts);
- prevention of decision-making fragmentation, which may arise if responsibilities are dispersed to local or county authorities lacking hydrological expertise.

The law governing the authorization of construction works regulates the general framework for carrying out constructions on Romanian territory. Article 11 of this law lists several types of works that are exempt from the requirement to obtain a building permit, such as:

- routine maintenance works;
- replacement of joinery;
- roof or utility repairs;
- temporary constructions within construction sites;
- minor works that do not affect the structural integrity of buildings.

These exemptions apply solely to urban planning regulations. The law does not exempt beneficiaries from the obligation to obtain permits or approvals required by other special laws, such as the Water Law no. 107/1996. However, in practice, many local authorities and developers misinterpret these exemptions as also waiving the need for special permits (e.g., from ANAR), which leads to illegal interventions on watercourses.

A beneficiary intends to construct a temporary culvert over a stream. Assuming that the work is temporary and falls under the exceptions provided by Law no. 50/1991, the beneficiary does not request a building permit nor a water management permit. However, the construction alters the minor riverbed and banks, partially obstructing water flow and increasing the risk of upstream flooding. Following an inspection, the National Administration "Apele Române" (ANAR) finds the lack of a water management permit and orders the work to be halted. Consequently, the court annuls any administrative act that may have been issued by the local authority.

Similar technical frameworks combining hydrologic, hydraulic, and geotechnical modeling have proven essential in designing erosion and flood mitigation structures that comply with rigorous standards (So *et al.*, 2025).

#### **Risks Associated with Lack of Coordination:**

- Development of infrastructure without compliance with hydrotechnical regulations;
- Temporary developments that produce lasting environmental effects;
- Legal conflicts between beneficiaries and authorities;
- Institutional inconsistency and erosion of trust in administrative decisions;
- Dangerous precedents that encourage circumvention of special legislation.

Poor coordination of water-related parameters reduces system performance and resilience over time (Zhou *et al.*, 2025).

There is a need for normative clarification at the central level. Central authorities must issue joint methodological norms or circulars to local administrations. These documents should clearly state that any work affecting water resources needs prior approval from ANAR, even if no urban planning permit is required.

The lack of unified procedures and the fragmentation of institutional responsibilities frequently result in inconsistent practices and inefficient resource allocation.

Guidelines and legislative documents issued by the Ministry of Environment, Waters and Forests emphasize the necessity of integrating environmental protection principles with watercourse management practices, requiring institutions to coordinate procedures and apply consistent technical standards across all interventions.

In addition, jurisprudence has consistently upheld this principle.

Consistent judicial practice in Romania has confirmed that construction permits issued without prior approval from the National Administration "Romanian Waters" (ANAR) are subject to annulment. This confirms the binding nature of water management laws and the exclusive role of ANAR in authorizing interventions on watercourses.

### Interventions on Watercourses Institutional Flow

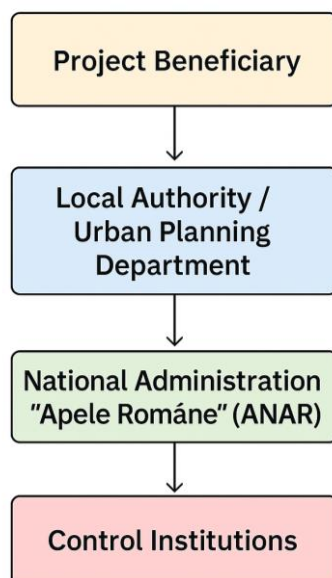


Fig. 1 – Institutional diagram and approval flow.

To gain a practical understanding of the implications of interventions on watercourses, this section analyzes three case studies – two drawn from real administrative and judicial practice and one illustrative example based on professional experience and typical administrative procedures.

**Positive Case:** Modernization of a Road Bridge in Compliance with Hydrotechnical Requirements

In Neamț County, the local authorities initiated the rehabilitation of a road bridge over a second-order watercourse. The technical project was submitted to the National Administration “Apele Române” (ANAR), which issued a favorable opinion, subject to specific conditions:

- re-profiling of the minor riverbed;
- stabilization of the banks using green solutions (gabions and vegetated slopes);
- ensuring a continuous ecological flow;
- execution of works outside the high hydrological risk season.

The project was successfully completed, and post-execution monitoring confirmed the hydromorphological integrity of the river and the preservation of local biodiversity. This example is representative of documented good practices reported by ANAR in multiple counties.

**Negative Case:** Construction of a Temporary Culvert without ANAR Approval.

In a commune in Bacău County, a private beneficiary installed a concrete culvert over a stream to facilitate access to agricultural land. The local municipality considered that the work fell under the exceptions provided by Law no. 50/1991 and did not request approval from the National Administration “Apele Române” (ANAR).

The construction disrupted the natural flow of water, and following a torrential rain, the upstream area was flooded. Complaints from local residents led to the intervention of the Environmental Guard and ANAR, who found that the required water management permit had not been obtained. The beneficiary was sanctioned, and the court ordered the demolition of the structure.

This is a composite example inspired by recurrent legal and environmental issues observed in field practice.

**Complex Case:** Building Permit Issued Without ANAR Approval, later annulled by court. This case is based on judicial decisions issued by courts in Moldova region between 2014 and 2019.

In a medium-sized town in the region of Moldova, a real estate developer obtained a building permit for a guesthouse located within the protection zone of a flowing water body. The ANAR approval had not been requested. Subsequently, environmental organizations challenged the administrative act.

The court found a violation of the Water Law and annulled the building permit, ruling that the absence of ANAR’s approval rendered the administrative act absolutely null.

These examples highlight the importance of institutional collaboration, thorough documentation, and consultation with the competent water authority. Inconsistent application of legislation or the omission of essential steps leads to financial and environmental damage, as well as a loss of public trust in institutions.

National interest projects—such as highways, modernized railways, dams, flood protection works, or energy networks—often involve direct or indirect interventions on watercourses. Although strategically justified, these projects must fully comply with the legal framework governing environmental protection and water resource management.

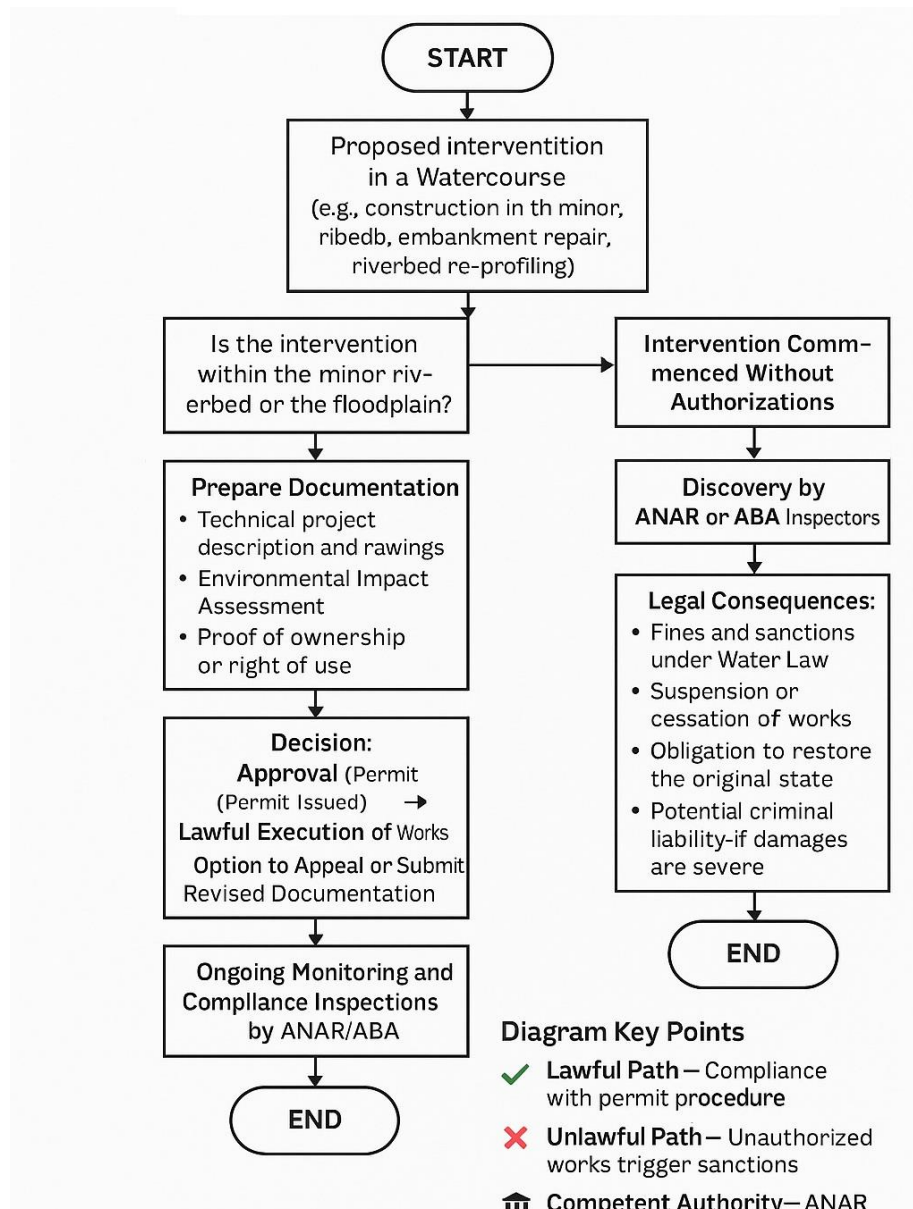


Fig. 2 – Lawful vs. unlawful Watercourse intervention paths.

### 3. Conclusions

The unified management of watercourses by the National Administration “Apele Române” is a legal, technical, and ecological necessity, justified by:

- the vital and strategic nature of water resources;
- the need for coherence in the implementation of European directives and environmental policies;
- the major risks posed by unauthorized interventions: flooding, erosion, pollution, and ecological imbalances.

Furthermore, experiences drawn from sustainable water management in agriculture demonstrate that integrated and coordinated efforts—combining policy support, technological innovation, community engagement, and education—are essential to ensure the long-term resilience and sustainability of water resources (Davangere, 2025).

The analysis revealed that, although there are no formal legislative contradictions between the Water Law and Law no. 50/1991, inconsistent application and divergent interpretations by local authorities can lead to serious omissions in the permitting process. In many cases, urban planning exceptions are mistakenly treated as exemptions from the obligations imposed by special laws, to the detriment of water protection. The solution does not lie in changing the administrative regime of water resources, but in strengthening ANAR’s capacity and clarifying institutional cooperation. Responsible planning, rigorous permitting, and monitoring the enforcement of imposed conditions must become operational standards for all works near watercourses.

Sustainable water governance cannot be achieved without integrating groundwater and surface water management into a unified framework, with strong institutional coordination. Recent studies highlight that sustainable development perspectives must guide groundwater management, ensure long-term resource availability and reduce conflicts between stakeholders (Akshay *et al.*, 2022).

This need for methodological evolution is further emphasized by recent research. Addressing deep uncertainty in water resources management requires a paradigm shift from traditional probabilistic approaches towards scenario-based thinking, where multiple plausible futures are systematically explored to design robust, adaptive strategies that can accommodate non-stationarity, incomplete knowledge, and diverse stakeholder perspectives (Wu *et al.*, 2025).

Only in this way can the sustainable development of national infrastructure be ensured without compromising the integrity and functionality of Romania’s natural hydrographic network.



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## RESPONSABILITĂȚI INTERINSTITUȚIONALE ÎN GESTIONAREA INTERVENȚIILOR ASUPRA CURSURILOR DE APĂ ȘI NEVOIA UNEI GESTIONĂRI UNIFICATE

(Rezumat)

Această lucrare abordează responsabilitățile interinstituționale implicate în gestionarea intervențiilor pe cursurile de apă, subliniind necesitatea unei abordări unificate de management pentru a asigura un management eficient și durabil al resurselor de apă. Cursurile de apă joacă un rol vital în sănătatea mediului, dezvoltarea economică și siguranța publică, dar gestionarea lor implică adesea mai multe instituții cu responsabilități suprapuse sau fragmentate. Acest lucru poate duce la ineficiențe, conflicte și oportunități ratate pentru o mai bună protecție și utilizare a resurselor de apă.

Lucrarea prezintă instituțiile cheie implicate în intervențiile asupra cursurilor de apă, inclusiv agențiile naționale de mediu, autoritățile locale și diverse organisme de reglementare, detaliind rolurile lor specifice în domenii precum calitatea apei, managementul inundațiilor, dezvoltarea infrastructurii sau conservarea și subliniază importanța delimitării clare a responsabilităților și nevoia unei comunicări și colaborări eficiente între aceste entități pentru a aborda provocările gestionării cursurilor de apă într-un mod coordonat.

O temă centrală a lucrării este nevoia critică de sisteme de management integrate care să combine expertiza și resursele diferitelor părți interesate. Structurile de management unificate ar facilita procese mai raționalizate de luare a deciziilor, ar reduce birocrăția și ar asigura că intervențiile sunt în timp util și eficiente. Un astfel de sistem ar îmbunătăți, de asemenea, punerea în aplicare a politicilor care sprijină utilizarea durabilă a resurselor de apă, protejând în același timp ecosistemele și comunitățile.

Lucrarea explorează în continuare beneficiile creării de platforme colaborative pentru partajarea datelor, resurselor și bunelor practici între instituții. Acesta sugerează că elaborarea de planuri comune de acțiune și orientări clare ar spori eficiența intervențiilor și ar consolida cooperarea instituțională. De asemenea, se subliniază importanța alinierii acestor eforturi de management cu politicile naționale și europene de gestionare a apei pentru a asigura conformitatea cu reglementările de mediu și pentru a contribui la obiective mai largi de sustenabilitate.

În concluzie, lucrarea solicită stabilirea unui cadru unificat de colaborare pentru gestionarea intervențiilor asupra cursurilor de apă, menit să îmbunătățească eficiența generală, transparența și sustenabilitatea guvernării resurselor de apă.