



AAC Recommendation on safeguarding aquaculture in the targeted revision of the Water Framework Directive

AAC 2026-5

April 2026



The Aquaculture Advisory Council (AAC) gratefully acknowledges EU funding support





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I. Background

The Water Framework Directive (WFD) establishes the EU framework for water quality governance, including the non-deterioration principle and the classification of water bodies¹.

On 17 March 2026, the European Commission launched a call for evidence on a targeted WFD revision planned for Q2 2026 focused on critical raw materials (CRM) projects². In parallel, the Council formally adopted on 17 February 2026 a revision introducing two new exemptions to the non-deterioration principle: a temporary deterioration exemption and a relocation exemption³.

The targeted revision takes place in a broader regulatory context, including initiatives to streamline environmental permitting procedures and support strategic raw materials projects⁴.

II. Justification

For aquaculture, water is the essential environment in which farmed aquatic organisms are raised and on which they depend. Water quality and quantity directly determine production viability, product safety, market access and investment confidence across all aquaculture subsectors, whether freshwater, coastal or marine.

The targeted WFD revision, focused on CRM projects, highlights concentrated risks: These activities can trigger sediment mobilisation and pollutant discharges (such as heavy metals) in river basins, estuaries and coastal areas, directly affecting aquaculture operations. (**See Annex for illustrative examples.**)

Quantifying the cumulative impacts of contaminants is inherently difficult and often underestimated. Water quality deterioration can **directly trigger the temporary closure of production areas or their downgrading**, leading to farming bans and immediate economic losses for producers. The new exemptions (temporary deterioration and relocation) create legal uncertainty. They may trigger prolonged closures or production restrictions, without notification or compensation mechanisms and without assessing downstream impacts on food safety and aquaculture site classification.

At the same time, extended transposition deadlines and streamlined administrative procedures, while facilitating strategic projects, can reduce regulatory predictability and increase costs for aquaculture operators.

Existing water quality degradation already imposes substantial economic burdens and undermines the polluter-pays principle. Previous recommendations of the Aquaculture

¹ Directive 2000/60/EC (WFD), Water Framework Directive, EU, 23 Oct. 2000.

² DG Environment, Call for Evidence, Ares(2026)2864556, 17 Mar. 2026.

³ Council of the EU, COD 2022/0344, targeted WFD revision, 17 Feb. 2026.

⁴ Commission Communications: RESourceEU Action Plan COM(2025)876; "Simplifying for sustainable competitiveness" COM(2025)780, Dec. 2025.



Advisory Council⁵ have consistently emphasised the need for specific protection of shellfish waters and robust monitoring to prevent economic and sanitary impacts, reinforcing the need to integrate aquaculture safeguards in this revision. Moreover, this specific protection must be accompanied by measures to reduce pollution at the source.

The targeted WFD revision must therefore balance support for strategic projects with effective protection of aquaculture waters.

III. Recommendations

AAC recommendations:

To the European Commission

1. Ensure coherence with aquaculture and food safety legislation.

Any exemptions introduced in the targeted WFD revision should explicitly consider potential impacts on aquaculture operations and compliance with EU food safety rules. Guidance from the Commission should clarify how exemptions interact with water quality standards, sanitary requirements of the Food Law and relevant environmental legislation.

2. Protect aquaculture during the transitional period.

Extended compliance deadlines must not result in de facto weakening of water quality standards affecting aquaculture production sites. In addition, transitional measures should preserve regulatory certainty and the predictability required for sustainable investment.

3. Introduce aquaculture safeguards in principle.

Exemptions must be predicated on an assessment of their impact on water-dependent food production to ensure that aquaculture safety is not jeopardised. Establishing rigorous requirements for cumulative impact assessments is vital; otherwise, the burden of achieving environmental objectives is disproportionately shifted to the aquaculture and blue sectors. Consequently, strengthening these assessments within fjords and coastal ecosystems is imperative.

4. Maintain the non-deterioration principle.

Exemptions should be clearly limited, and no weakening of the non-deterioration principle should be introduced. Predictable and enforceable water quality objectives are essential for sustainable aquaculture.

⁵ European Commission Reply to the Recommendation on the Specific Protection of Shellfish Water Quality, December 2019. [Signed Reply_Mare_Env_Shellfish_water_quality.pdf](#)
AAC Recommendation on the Norovirus crises, the final stages of the negotiations of the Urban Wastewater Treatment Directive and the Water Resilience Initiative, AAC, September 2024. [7-AAC-Recommendation-on-the-norovirus-crisis.pdf](#)



5. Strengthen the polluter-pays principle.

Responsibility for contamination or water quality deterioration should rest with the operators causing it. Guidance should ensure that costs are not shifted to aquaculture producers.

6. Safeguard effective access to justice.

Streamlined procedures must not impede stakeholders' rights to challenge decisions affecting water quality or aquaculture interests.

7. Clarify the interpretation of overriding public interest.

Public interest status should not grant automatic environmental derogations; exemptions must require rigorous, case-by-case assessments. In a complex geopolitical climate, food security, energy and critical minerals must be treated as interdependent and strategically equivalent.

8. Simplify administrative burdens for aquaculture operators.

Complex permitting and overlapping reporting hinder investment and innovation. However, administrative simplification must not result in unequal treatment: Environmental assessments for aquaculture should be proportionate and risk-based, ensuring no asymmetry with other strategic sectors. Failure to maintain this balance jeopardises geographically bound blue sectors that depend directly on the integrity of coastal waters.

IV. Annex - Illustrative Examples of Aquaculture Risks and Impacts

Purpose: This annex provides examples of potential site-specific and sectoral impacts on aquaculture related to the targeted WFD revision and the introduction of exemptions for CRM projects. These examples are **illustrative and non-exhaustive**, intended to support the assessment of risks without prescribing operational measures.

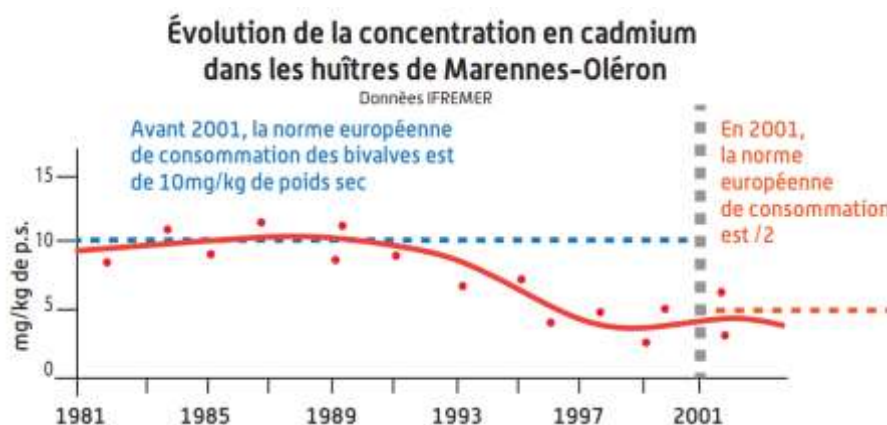
Case 1: France, Oyster Aquaculture and Cadmium Pollution in the Adour-Garonne Basin

Source of contamination: Union Minière de Viviez (UMICORE), Aveyron zinc mining (1970s–1986), generating cadmium as a by-product.

Contamination pathway: Cadmium leached from mine soils into the Riou Mort and downstream into the Gironde estuary and Marennes-Oléron oyster beds.

Timeline & key events:

- 1970s: High cadmium concentrations were detected in wild mussels and oysters (IFREMER, RNO).
- 1986: Mine production stopped after an accidental pollution event; remediation efforts reduced cadmium flux from ~30 t/year to 1.5 t/year.
- 1995: Harvesting ban on shellfish in affected oyster zones, classification downgrade to Class D.
- 2004–2010: “Cadmium challenge” project to reduce contamination in northern Médoc.



Evolution of cadmium concentration in oysters from Marennes Olérons

(Source: Ifremer)

- 2010–2014: Partial authorisation of shellfish farming in Class B waters with special conditions (6-month refining period).

Impacts on bivalve aquaculture:

- Prolonged closures of oyster and mussel production areas.



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- Reduced production volumes and yields.
- Significant operational costs for purification and relaying.
- Loss of market access for affected producers during contamination periods.

Economic implications: Producers incurred costs in the order of hundreds of thousands of euros annually per farm, including infrastructure, purification and lost turnover during closures.

Case 2: Spain, Mussel Farming, Environmental Risk from Touro and San Finx Mines, Galicia

Sources of contamination:

- Touro Mine: Open-pit copper mine near Ría de Arousa, active 1974–1987, abandoned without restoration; ongoing residual processing and attempted reopening since 2010.
- San Finx Mine: Underground tungsten and tin mine near Ría de Muros-Noia, operational until 1990, sporadically reopened 2009–2013, with continued water contamination.

Contamination pathway: Heavy metals (copper, cadmium and zinc) leached into river systems (Ulla and Muros-Noia catchments), with documented contamination of fluvial sediments and watercourses in the vicinity of both mines. However, no study has established a transmission pathway from mine discharges to shellfish production areas in the rías.

Timeline & key events (Touro):

- 2000–2010: Reports of heavy metal contamination in rivers and sediments; administrative sanctions applied to mine operators.
- 2017–2021: Attempts to reopen mine blocked due to negative environmental impact assessment and legal action.
- 2023: Monitoring agreements signed with local shellfish growers; contamination persists from upstream discharges.

Timeline & key events (San Finx):

- 2009–2018: Reopening attempts without proper permits; mine ceased operations after bankruptcy.
- 2018–2024: Natural leaching of metals from flooded galleries; repeated unauthorised discharges.
- Feb. 2023: Xunta de Galicia authorised limited discharges with treatment requirements.
- Apr. 2024: Authorisation was revoked due to non-compliance, preventing exploitation.

Risk to shellfish aquaculture:

- The proximity of mining contamination to major shellfish production areas (Ría de Arousa and Ría de Muros-Noia) represents a significant and ongoing environmental risk to mussel and clam farming.



- To date, no closures of mussel or clam production areas have been ordered as a direct consequence of contamination from either the Touro or San Finx mines.
- No published study has demonstrated a direct impact of mining discharges on the growth, survival or sanitary classification of shellfish in the affected rías.
- The shellfish sector and local communities have sustained strong opposition to mining activity in these catchments, reflecting the perceived threat to production and the precautionary principle.
- Any reopening of mining activity or further uncontrolled discharges would substantially increase the risk of contamination reaching shellfish production zones, with potential consequences for sanitary classification, market access and producer livelihoods.

Economic implications: While no quantified economic losses attributable to mining contamination have been documented to date, the potential impact in the event of a contamination event reaching shellfish waters would be substantial. Galicia is the largest mussel producer in the European Union. The concentration of production in a limited number of rías means that any water quality deterioration affecting sanitary classification could result in significant closures, loss of market access and reputational damage, with cascading effects on local communities whose economic activity depends heavily on shellfish aquaculture.

Relevance to this recommendation: The Galician case illustrates a scenario where mining contamination has been documented in watercourses adjacent to major shellfish production areas but where direct impacts on aquaculture have not yet materialised. It demonstrates the importance of preventive safeguards: once contamination reaches shellfish waters, the consequences—as shown in Case 1 (France, Adour-Garonne)—can persist for decades and impose severe economic and regulatory burdens on producers. The regulatory failures identified in both the Touro and San Finx cases (absence of restoration, operation without permits and non-compliance with discharge conditions) underscore the need for robust ex ante assessment of impacts on water-dependent food production, as recommended in this document.

Case 3: Romania. Wildlife, Aquaculture and Recreational Fishing. Heavy Metals and Cyanides from Mining Sedimentation Ponds

Sources of contamination:

- Mining activities spilled into the river systems (Somes-Tisa – Danube) until storage ponds or reservoirs.

Contamination pathway:

- Copper, lead, zinc and cyanides

Key events:

- The 2000 Baia Mare cyanide spill was a [cyanide](#) leak near [Baia Mare, Romania](#), into the [Somes River](#) by the [gold mining](#) company [Aurul](#), a joint venture of the [Australian](#)



company, Esmeralda Exploration, and the Romanian government. The polluted waters eventually reached the [Tisza River](#) and then the [Danube](#), killing large numbers of fish in [Hungary](#), [Serbia](#) and [Romania](#). The spill has been called the worst [environmental disaster](#) in Europe since the [Chernobyl disaster](#).

- After 5 weeks, a [dyke](#) burst in [Băile Borșa](#), [Maramureș County](#) and 20,000 cubic metres of zinc-, lead- and copper-contaminated water made its way into the Tisza.

Impact on the environment and aquaculture:

- Besides the mortalities during and after the event, it took several years for fish stocks to recover.
- Aquaculture farms were affected by a lack of adequate quality water.

Case 4. Norway, Salmon Fjords, Mining Tailings in Førdefjorden and Repparfjorden

Source of contamination: Mining projects in Førdefjorden and Repparfjorden, involving the discharge of large volumes of finely crushed mine tailings.

Contamination pathway: Discharge of particulate matter and harmful substances (including heavy metals such as copper and nickel) into fjords, leading to seabed degradation and sediment resuspension.

Timeline & key events:

- 2001–2002: Formal parliamentary decision (Proposition No. 79) establishing national salmon fjords to protect wild salmon, imposing strict restrictions on aquaculture.
- Ongoing: Mining activities authorised in the same water bodies despite discharging tailings with persistent environmental pressures.
- To date: Paradoxical regulatory framework in which aquaculture is prohibited due to nutrient concerns while mining is permitted despite greater environmental impacts.

Impacts on aquaculture:

A particularly illustrative example of regulatory inconsistency in water management is found in the mining projects in Førdefjorden and Repparfjorden, both designated as national salmon fjords with special protection for wild salmon.

Mining activities in these fjords are associated with the discharge of large volumes of finely crushed mine tailings containing particulate matter and harmful substances, including heavy metals such as copper and nickel. These discharges may degrade seabed habitats, resuspend fine sediments and interfere with ecological processes critical for wild salmon, fisheries and aquaculture.

The paradox is that aquaculture is not permitted to operate in these nationally protected salmon fjords due to concerns related to nutrient emissions and potential impacts on wild salmon, while mining activities with substantially greater and more persistent environmental pressures are authorised in the same water bodies. Consequently, aquaculture risks being



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held accountable for environmental status that may deteriorate due to impacts caused by other sectors. This undermines confidence in water governance, weakens the principle of equal treatment between sectors and raises fundamental questions about the practical application of the non-deteriorating principle.



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