



Dam Removal in the Nature Restoration Law

*Obsolete barrier removal to achieve the
obligations of the Nature Restoration
Regulation*



Wetlands
INTERNATIONAL



Breaking Down Barriers: Dam Removal for Nature Restoration

Regulation 2024/1991 on Nature Restoration is known as the Nature Restoration Law, or the Nature Restoration Regulation. In this factsheet, Nature Restoration Law (NRL) is used.

After its entry into force on the 18th of August 2024, dam removal becomes an obligatory measure to improve the ecological status of wetland and riparian habitats listed in Annex I.

NRL General objectives

The purpose is to create a binding blueprint for the European Union to achieve its biodiversity and climate objectives, both internal (such as the Biodiversity Strategy for 2030 or the Climate Neutrality Regulation¹) and international (such as the Paris Agreement of the UNFCCC or the

Kunming-Montreal Global Biodiversity Framework) of the Convention on Biodiversity.

The NRL requires Member States to put in place effective, area-based restoration measures on at least 20% of land areas and at least 20% of the sea by 2030, and on all ecosystems in need of restoration by 2050.

National Restoration Plans

Chapter III of the NRL covers the development, contents and review of the National Restoration Plans (NRPs). These plans will detail the roadmap that each Member State will follow to achieve the progressive targets. The NRPs will contain three sections:

Part A - General Information:

- General co-benefits, including on climate
- Interplay with other policies and plans
- Financial information

Monitoring, effectiveness and revision of measures

¹ Regulation 2021/1119



Part B - Restoration Plans by Article:

Specific information about Articles 4-13

- Information on indicators and targets
- Areas to be restored and indicative maps
- Overview of restoration measures

Part C - Restoration Measures:

- Information about measures
- Links between measures and targets
- Options for aggregation by habitats and ecosystems
- Options for bottom-up decentralised approach

Barrier removal and climate co-benefits

The first section on NRPs will detail co-benefits, including for climate change mitigation and adaptation.

Barrier removal has many benefits for migratory species, sediment transport and habitat restoration. But its potential as a measure to mitigate and adapt to climate change is often overlooked.²

For adaptation:

- Climate change in Europe is increasing the severity and frequency of extreme weather events. Barriers (especially dams) built 50 to 100 years, were not designed for these conditions, increasing the risk of a breach and catastrophic flooding.
- Building reservoirs contributes to water scarcity by increasing evaporation and can aggravate drought conditions downstream by holding water back.
- By trapping sediments upstream, barriers degrade the resilience of deltas and estuaries to sea level rise, storm surges and saltwater intrusion.

For mitigation:

- Many artificial reservoirs and ponds behind barriers can produce greenhouse gases, including methane, which has an extremely high global warming potential.
- Large dams flood the upstream landscape, removing carbon sinks such as forests.

Timeline



Barrier removal in the NRL

Article 9

River connectivity target

Artificial barriers to the natural connectivity of surface waters must be catalogued under the NRL. This inventory will also identify barrier removal necessary to contribute to the restoration of habitats listed in Annex I - which include wetlands, lakes and other riparian habitats.

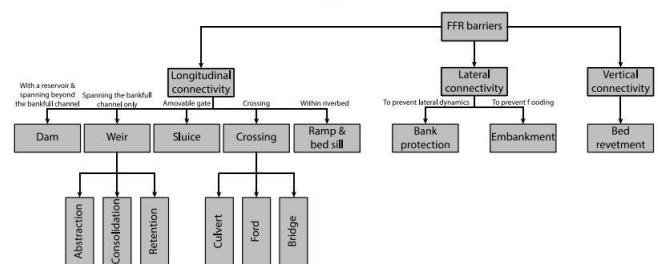
The inventory and removal of barriers will therefore contribute to the targets of riverine habitats in Annex I, the objective of restoring at least 25 000 km of free-flowing rivers in the EU by 2030 and the functionality of floodplains.

Free-flowing rivers target

Achieving the 25,000 km of free-flowing rivers target (up until now, enshrined in the EU Biodiversity Strategy for 2030) will depend on what is understood by the term “free-flowing river”. The European Joint Research Centre has created a methodology to identify these stretches, and even detailed which type of barrier removal would contribute to achieving this free-flowing status ([consult the methodology here](#)). The graph below shows the four criteria, and how different types of barrier removal can contribute to a river becoming free-flowing.

Annex 2. Overview of FFR relevant barrier types with their key attributes and impacts

Figure 9 - High-level overview of barrier types to be considered in the FFR assessment



Article 4

Terrestrial, coastal and freshwater ecosystems

There are over 230 Annex I habitats, categorised in seven groups - including wetlands, rivers, lakes, alluvial and riparian habitats – under the NRL they are all required to improve into ‘good condition’.

By 2030 at least 30% of the total surface area of all groups must achieve good condition, at least 30% of habitats must be re-established to reach a Favourable Reference Area, and the conservation status must be studied and determined for 90% of all groups. In addition to that, there is an obligation to restore the habitats of species and to put in place measures to prevent significant deterioration of that which has been restored.

² <https://damremoval.eu/wp-content/uploads/2024/07/Factsheet-Final.pdf>

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