



Trinomics 



COMPILATION OF EXISTING GUIDANCE ON ECOSYSTEM RESTORATION

Under Framework contract

“Analytical and technical support during the negotiations process for the Nature Restoration Law”

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Workshop on existing guidance and projects on ecosystem restoration,
22nd Feb 2024 (online)

”

Member States shall prepare **national restoration plans** and carry out the preparatory monitoring and research needed to identify the restoration measures that are necessary to meet the targets and obligations set out in **Articles 4 to 10a** and to contribute to the Union’s overarching objectives set out in **Article 1**, taking into account the **latest scientific evidence**.

Art. 11 (1), Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on nature restoration



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Aim of the assignment

A compilation document with sources for MS to inform nature restoration planning.

Online sources

- ▶ Guidelines, standards, and handbooks
- ▶ Key platforms and expert networks
- ▶ Projects and databases

National sources



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Structure of the compilation document

- 1. General Resources**
- 2. Restoration of Terrestrial, Coastal and Freshwater Ecosystems (Art. 4)**
- 3. Restoration of Marine Ecosystems (Art. 5)**
- 4. Urban Ecosystems (Art. 6)**
- 5. Restoration of the Natural Connectivity of Rivers & Functions of the Related Floodplains (Art. 7)**
- 6. Restoration of Pollinator Populations (Art. 8)**
- 7. Restoration of Agricultural Ecosystems (Art. 9)**
- 8. Restoration of Forest Ecosystems (Art. 10)**
- 9. National Restoration Guidelines**

Appendix 1: Additional Resources

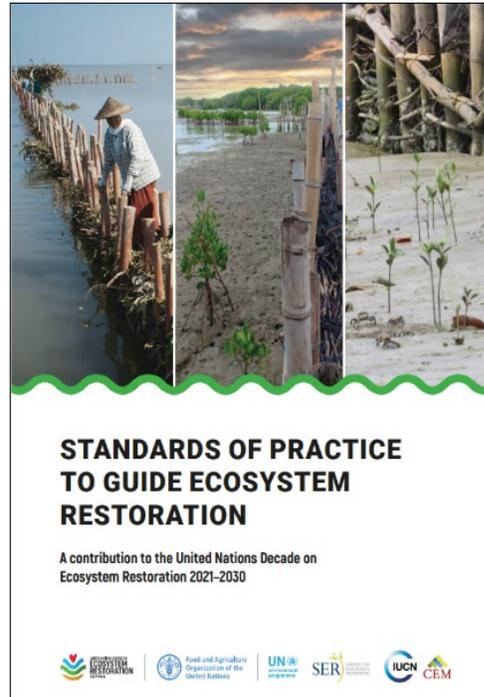
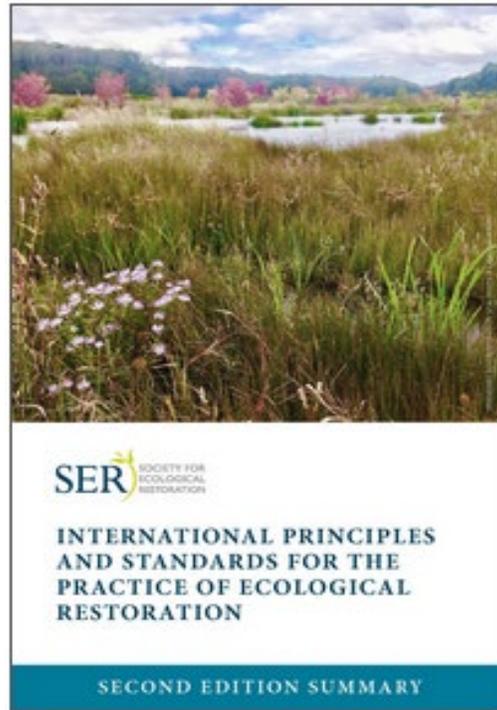


General resources include guidelines, databases, expert networks

- 1. General Resources**
 - 1.1. Restoration Guidelines
 - 1.2. Databases
 - 1.3. Expert Networks
- 2. Restoration of Terrestrial, Coastal and Freshwater Ecosystems (Art. 4)**
- 3. Restoration of Marine Ecosystems (Art. 5)**
- 4. Urban Ecosystems (Art. 6)**
- 5. Restoration of the Natural Connectivity of Rivers & Functions of the Related Floodplains (Art. 7)**
- 6. Restoration of Pollinator Populations (Art. 8)**
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- 8. Restoration of Forest Ecosystems (Art. 10)**
- 9. National Restoration Guidelines**

Appendix 1: Additional Resources

25 general guidelines



7 databases

Basic Search on LIFE Public Database

Basic Search on LIFE Public Database

- The Basic Search performs a unified search on both Projects and Documents using your input text.
- For a more detailed search on Projects you can use the [Advanced Projects Search](#)
- For a more detailed search on Documents you can use the [Advanced Documents Search](#)

restoration peatland

Keyword Variants (eg: searching for Europe will return all projects containing the word Europe or derivatives like European)

[EXPAND ALL](#) [COLLAPSE ALL](#) [EXPORT RESULTS](#)

Latest Updated Projects | Latest Updated Documents

Project Title	Reference	
Peat Pals for LIFE	LIFE22-NAT-NL-Peat-Pals/101113679	%DETAILS
Austrian Moor Restoration - Integriertes Projekt zur Umsetzung der Moorstrategie Österreich 2030+	LIFE22-IPN-AT-LIFE-AMooRe/101104368	%DETAILS
LIFE Strategic Nature Project for Ireland	LIFE22-IPN-IE-LIFE-SNaP-Ireland/101103707	%DETAILS

> Home

Nature-based solutions knowledge databases

Nature-based solutions knowledge gaps database

Explore the nature-based knowledge gap analysis below to help identify future avenues for research. The knowledge gap database compiles an evidence base for nature-based solutions, to support defining research and innovation avenues, bolster policy and practitioners' knowledge and knowledge-implementation. The database gathers 'gaps' collected through desk study and online consultations from August to October 2021.

[Explore the knowledge gaps database](#)



Database of EU research and innovation projects on nature-based solutions



17 expert networks



SER SOCIETY FOR ECOLOGICAL RESTORATION EUROPE

About ▾ Events and activities ▾ Knowledge Base ▾ Publications ▾ Become a member ▾ YOUNG#ER ▾ SER Europe Projects ▾

VISION AND MISSION BOARD OF DIRECTORS OUR CONTRIBUTION TO THE EUROPEAN POLICY CONTEXT CONTACT BYLAWS AND SEAT AFFILIATED MEMBER ORGANISATIONS **LINKS TO OTHER RELEVANT NETWORKS**

Links to other relevant networks

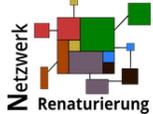
RENO (Restoration of damaged Ecosystems in the Nordic countries)

RENO is a Nordic multidisciplinary network of scientists, practitioners, policy makers and entrepreneurs working with ecological restoration. The ReNO project analyzes the extent, status, methods and results of restoration activities in the Nordic countries, analyzes the natural and socio-economic processes involved in restoration, identifies and inadequate policy instruments, and develops paradigms and guidelines for restoration.

The ReNO project was funded by the Nordic Council of Ministers during 2009-2011. The group continues its work during 2012- 2014 as EvRest project in Canada, Greenland and Scotland. The project is funded by the Nordic Council of Ministers. EvRest aims at developing frameworks to evaluate ecological restoration projects, improving the quality of restoration projects.



Start [Das Netzwerk](#) [Veranstaltungen](#)



Netzwerk Renaturierung

Renaturierung ist ein durch den Menschen veranlasster Prozess zur Wiederherstellung eines Ökosystems, das entweder degradiert, gestört oder vollständig zerstört wurde

Die Motivation des Netzwerks Renaturierung ist es, Verbindungen von Praktikern und Wissenschaftlern zu fördern und einen produktiven Austausch von neuartigen Ideen, theoretischem Wissen und konkreten Erfahrungen zu ermöglichen. Dabei werden enge Kontakte zur [Society for Ecological Restoration](#) und der [Gesellschaft für Ökologie](#) gepflegt.

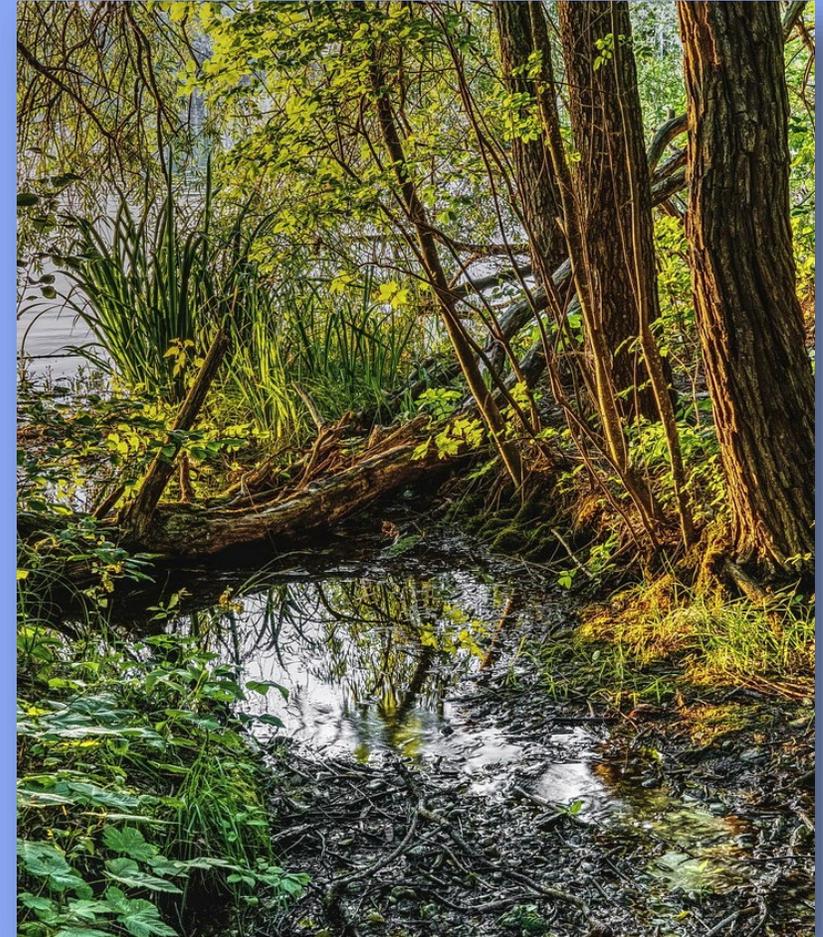
Das Netzwerk

Das Netzwerk führt jährliche Treffen in unterschiedlichen Teilen Deutschlands, Österreichs, Luxemburgs und der Schweiz zu aktuellen Themen der ökologischen Renaturierung durch, die mit der Besichtigung von Projekt- und Umsetzungsgebieten verbunden werden, wobei Wert auf ausreichend Zeit für Diskussionen vor Ort gelegt wird. Im Sinne des Austausches werden auch Veranstaltungen außerhalb des Netzwerkes angekündigt.

”

Member States shall put in place the restoration measures that are necessary to improve to good condition areas of **habitat types listed in Annex I (Annex II)** which are not in good condition.

Art. 4 Restoration of terrestrial, coastal and freshwater ecosystems (and Art 5 Restoration of marine ecosystems)





For Art 4 & 5 groups of habitat types listed in Annex I, II as subchapter

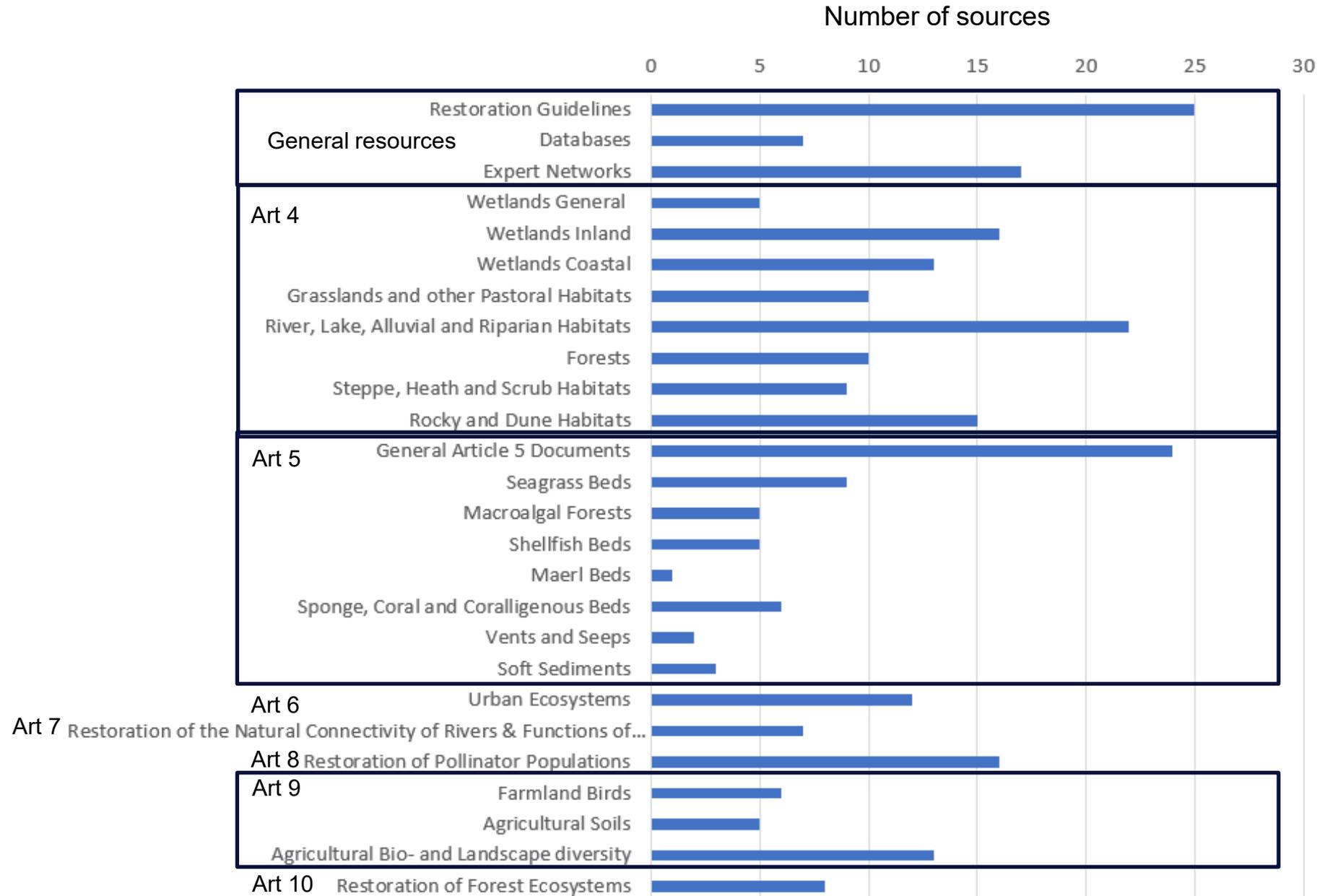
1. **General Resources**
2. **Restoration of Terrestrial, Coastal and Freshwater Ecosystems (Art. 4)**
 - 2.1 Wetlands
 - Inland
 - Coastal
 - 2.2 Grasslands and other Pastoral Habitats
 - 2.3 River, Lake, Alluvial and Riparian Habitats
 - 2.4 Forests
 - 2.5 Steppe, Heath and Scrub Habitats
 - 2.6 Rocky and Dune Habitats
3. **Restoration of Marine Ecosystems (Art. 5)**
 - 3.1 General Documents
 - 3.2 Seagrass Beds
 - 3.3 Macroalgal Forests
 - 3.4 Shellfish Beds
 - 3.5 Maerl Beds
 - 3.6 Sponge, Coral and Coralligenous Beds
 - 3.7 Vents and Seeps
 - 3.8 Soft Sediments (Above 1000 Meters of Depth)
4. **Urban Ecosystems (Art. 6)**
5. **Restoration of the Natural Connectivity of Rivers & Functions of the Related Floodplains (Art. 7)**
6. **Restoration of Pollinator Populations (Art. 8)**
7. **Restoration of Agricultural Ecosystems (Art. 9)**
8. **Restoration of Forest Ecosystems (Art. 10)**
9. **National Restoration Guidelines**



Art 9 includes subchapters in accordance with aims

- 1. General Resources**
- 2. Restoration of Terrestrial, Coastal and Freshwater Ecosystems (Art. 4)**
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- 5. Restoration of the Natural Connectivity of Rivers & Functions of the Related Floodplains (Art. 7)**
- 6. Restoration of Pollinator Populations (Art. 8)**
- 7. Restoration of Agricultural Ecosystems (Art. 9)**
 - 7.1 Farmland Birds
 - 7.2 Agricultural Soils
 - 7.3 Agricultural Bio- and Landscape diversity
- 8. Restoration of Forest Ecosystems (Art. 10)**
- 9. National Restoration Guidelines**

Compilation of > 270 guidance



For each source the following information is provided

- Bibliographic information
- Link to source
- Short description
- Index criteria

2.2.5 Latvijas Dabas fonds (2017-2023). GrassLIFE: Restoring EU priority grasslands and promoting their multiple use. <https://www.ldf.lv/en/projects/grasslife-restoring-eu-priority-grasslands-and-promoting-their-multiple-use>.

GrassLIFE will focus on developing, optimising and improving the conservation status of five EU priority grasslands in Latvia (6120*, 6210*, 6230*, 6270* and 6530*). All restoration activities will be carried out within 14 Natura 2000 network sites. This website gives a very detailed project overview and lists the preparatory actions taken, the conservation actions and the monitoring actions.

Region	Restoration target	Type of Source	Stage of Restoration Process	Other NRL articles addressed	Habitat Code
Boreal	Grasslands	Project	Planning, Implementation, Monitoring	N/A	6210, 6120, 6230, 6270, 6530

- **6120** Xeric Sand Calcerous Grasslands
- **6210** Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*)
- **6230** Species-rich *Nardus* grasslands, on silicious substrates in mountain areas
- **6270** Fennoscandian lowland species-rich dry to mesic grasslands
- **6530** Fennoscandian wooded meadows

Index criteria include

- Biogeographic Region
- Restoration Target
- Type of Source
- Restoration Stage
- Relevance for other NRL Articles
- Habitat Code (for Article 4 & 5)

(Biogeographic-) Region	Restoration Target		Type of Source	Restoration Stage
Global	General Guidance	Mires	General Guideline	Planning
Europe	Agricultural Ecosystems	Peatlands	Database	Implementation
Alpine	Alluvial Habitats	Pollinators	Website	Monitoring
Atlantic	Bogs	Ponds	Policy Brief	
Black Sea	Butterflies	Reefs	Project	
Boreal	Coastal Ecosystems	Riparian Habitats	Academic Article	
Continental	Deep Sea	River Connectivity		
Macaronesian	Dunes	Rivers		
Mediterranean	Farmland Birds	Rocky Habitats		
Pannonian	Floodplains	Saltmarsh		
Steppic	Forests	Seagrass		
	Grasslands	Shellfish Beds		
	Heathlands	Soils		
	Lakes	Steppe		
	Landscape Diversity	Urban Ecosystems		
	Macroalgal Forests	Wetlands		
	Mearl Beds	Wooded Meadows		
	Marine Ecosystems	Woodlands		

Navigate using the "Find" function

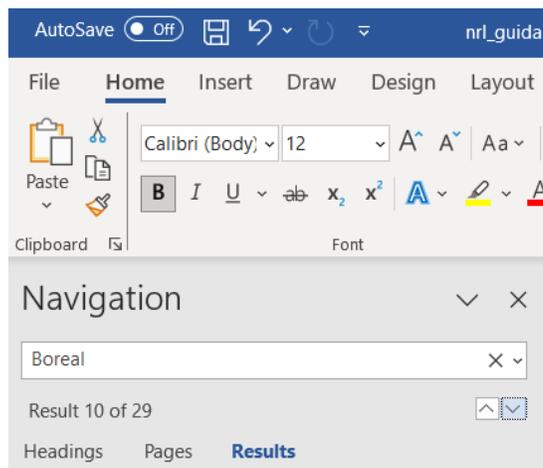
of information on river restoration schemes from around Europe.

Region	Restoration target	Type of Source	Stage of Restoration Process	Other NRL articles addressed	Habitat Code
Europe	Rivers, Riparian Habitats	Database	Planning, Implementation	7	N/A

- 2.3.8 [ReBorN \(2022\). ReBorN - Restoration of Boreal Nordic Rivers. A LIFE project which restored watercourses heavily affected from the timber floating era. \[https://en.rebornlife.org/files/ugd/a179e9_0497f6cf93eb49948888c5877156ef47.pdf\]\(https://en.rebornlife.org/files/ugd/a179e9_0497f6cf93eb49948888c5877156ef47.pdf\)](https://en.rebornlife.org/files/ugd/a179e9_0497f6cf93eb49948888c5877156ef47.pdf)

This Layman Report describes the project in detail including the restoration measures that were taken. These measures include restoring meanders to straightened rivers, enhancing historic river features, improving sinuosity of current planform, green bank protection, improving channel morphology, managing overland floodwaters, creating floodplain wetland features, providing public, private & livestock access, enhancing outfalls to rivers, utilising spoil excavated from rivers, river diversions & removing or bypassing barriers.

Region	Restoration target	Type of Source	Stage of Restoration Process	Other NRL articles addressed	Habitat Code
Boreal	Rivers, Riparian Habitats	Project	Planning, Implementation, Monitoring	7	N/A



National Resources

- Austria
- Czech Republic
- Finland
- France
- Germany
- Luxembourg
- Netherlands
- Spain
- Sweden

9 National Restoration Guidelines

9.1 Austria

- 9.1.1 Bundesministerium Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie (2022). **Biodiversity Strategy Austria 2030+ [Biodiversitäts-Strategie Österreich 2030+]**. https://www.bmk.gv.at/themen/klima_umwelt/naturschutz/biol_vielfalt/biodiversitaets-strategie_2030.html.

Available in German.

Region	Restoration target	Type of Source	Stage of Restoration Process	NRL articles addressed
Alpine	General Guidance	General Guideline	Planning, Implementation	N/A

- 9.1.2 UVOR (2006-2010). **Unterberg-Vorland**. [LIFE 3.0 - LIFE06 NAT/A/000124 \(europa.eu\)](https://www.europa.eu/press-communications/infobox.cfm?id=11414).

Available in German and English.

Region	Restoration target	Type of Source	Stage of Restoration Process	NRL articles addressed
Alpine	Pollinators, Butterflies, Grasslands	Project	Planning, Implementation	4, 8, 9, 10

- 9.1.3 Paternoster, D., Danziger, F., Koukal, T., Kudrnovsky, H., Lackner, S., Berger, A., Schadauer, K., Wrška, T., Stejskal-Tiefenbach, M., Ellmauer, T. – Umweltbundesamt (2021). **Strategic Framework for the Prioritisation for the restoration of ecosystems at national and sub-national levels [Strategischer Rahmen für eine Priorisierung zur Wiederherstellung von Ökosystemen auf Nationalem und Subnationalem Niveau]**. https://www.umweltbundesamt.at/studien-reports/publikationsdetail?pub_id=2370&cHash=4babebf3d5c56f46ecdeac55d9ea4bc6.

Available in German.

Region	Restoration target	Type of Source	Stage of Restoration Process	NRL articles addressed
Alpine	General Guidance	General Guideline	Planning, Monitoring	N/A

In a nutshell



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<https://carltonassociates.co.uk/services/document-compilation>

- A compilation of > 270 existing nature restoration guidance resources
- With general guidelines and information for ecosystems and habitats listed under Art 4-10
- In addition, national restoration guidance resources included
- Index and "Find" function as secondary entry point to access relevant information



Ecologic Institute

Science and Policy
for a Sustainable World

Thanks! Any more Questions?

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