



Marine and Coastal Habitat Restoration Principles

Version 0.8, 06/10/2023

Introduction

The 10 overarching principles set out below have been developed by the Environment Agency and Natural England as part of the Restoring Meadows, Marsh and Reef Initiative (ReMeMaRe). They support the aim of ReMeMaRe to increase the scale and rate of implementation of estuarine and coastal restoration projects. They are aimed at anyone looking to undertake restoration (habitat enhancement or creation) in the estuarine, coastal, and marine environments.

Restoration may happen independently to aid the recovery of a habitat; as a requirement for Net Gain (although the type, location, timing, and extent of restoration required for Net Gain is outside of the scope of these principles); or as an approach to offset the input of carbon, nutrients, or other impacts elsewhere. To ensure the long-term sustainability, any habitat creation and restoration site should be secured and managed for a minimum period of 30 years, which must be considered as part of the planning and implementation process.

These principles are applicable both inside and outside of designated sites (marine protected areas) and provide guidance on good restoration approaches. Their application does not bypass existing legislation or regulatory requirements. The Overarching Principles detailed below will be reviewed on a regular basis to reflect the nature of developing restoration science.

For more information on the restoration principles, please contact rememare@environment-agency.gov.uk.

Overarching Principles

- 1) The primary aim of restoration is to (re)create natural habitats and functions and enhance **resilient habitat features or biotopes within a land and seascape**. Requirements for repeated interventions and management should be minimised where possible by restoring underpinning natural processes and allowing them to function freely.

- 2) **Climate change** is the critical backdrop against which all restoration efforts will play out. We should not be investing in creating habitats that are shown not to be viable due to current and future climate pressures. All restoration should consider resilience to future climate pressures and identify opportunities to adapt to them.
- 3) **Removal of pressures** in existing marine and coastal habitats should be considered before and alongside active restoration. This will improve the conditions for restoration success
- 4) Landscape and seascape scale restoration of **habitat mosaics** and supporting processes at suitable spatial scales is preferred over creation of single habitats, as this approach will support wider ecosystem recovery and lead to the highest gains for carbon, biodiversity, and other ecosystem services.
- 5) **Habitat suitability and historic habitat extents** should be considered in restoration projects, as this will enhance support and confidence in restoration.
- 6) Restoration projects **within designated sites** must consider existing designated features and how the restored habitat or mosaic will fit in, guided by evidence and statutory processes. Restoring a habitat feature or a biotope at the expense of another designated feature needs to be legally compliant.
- 7) Restoration projects should have **robust monitoring, evaluation, public engagement** and sharing of lessons learnt. Restoration in the marine environment is an area of developing knowledge with many approaches still at a proof-of-concept stage.
- 8) Restoration projects should have robust **biosecurity measures** in place, to prevent the introduction, spread and establishment of invasive non-native species.
- 9) **Artificial structures** may supplement existing biodiversity in highly modified ecosystems but do not create new naturally functioning habitats. Their use should be seen as a last resort for adoption when process-based restoration is not possible.
- 10) Although **artificial enhancement** for commercial gain may have some benefits for the environment, activities that alter the natural processes are not considered a form of restoration.