



FCERM GLOSSARY

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ADAPTATION:

Adapting means getting prepared for floods and coastal changes by doing smart things to stop them or make them less harmful. By planning ahead it can help save money and lives later on.

ADVANCE THE LINE:

The build of new defences into the sea in front of the existing defence line.

BASELINE MODEL:

The baseline model represents the current built and natural environment scenario. It is used as a starting point to analyse data and interpret different modelling scenarios.

BEACH MANAGEMENT PLAN (BMP):

A beach management plan (BMP) is a plan for managing a beach at a local level for the purpose of Flood and Coastal Erosion Risk Management (FCERM). The aim of the plan is to maintain or improve the condition of the beach, for both coastal protection and recreational use.

BEACH NOURISHMENT:

Adding sand or other materials to a beach from elsewhere to restore or enhance it. Also known as beach renourishment or beach recharge.



BEACH RECYCLING:

When sand and shingle are taken from an area of beach where it has built up with tidal movement and delivered to an area where sand and shingle have been lost. This helps maintain the profile of the beach and prevent wave overtopping.

BIODIVERSITY NET GAIN:

A development approach that aims to improve the natural environment by creating or enhancing habitats, leaving it in a better state than before.

CANN:

A large hole, known as a cann, which is produced in the back of the beach by water coming through and/or over the beach.



CATCHMENT:

The area where rain contributes to water in a borehole, spring, river, or lake. For rivers and lakes, it includes tributaries and their areas. In river management, it can mean larger and smaller operational zones.

CLIMATE CHANGE:

Persistent changes in Earth's temperature, rainfall, wind, and atmospheric conditions over a long period. Mostly caused by human activities like burning fossil fuels and deforestation, releasing greenhouse gases. These gases trap heat, causing global warming. Effects include rising sea levels, more intense weather events, harm to ecosystems and biodiversity, altered rainfall patterns, and impacts on agriculture and water resources.

COASTAL DEFENCE SCHEMES:

These are schemes aligning with Shoreline Management Plans and Coastal Defence Strategies that provide the level of protection required to minimise flood and erosion risks at specific locations.

COASTAL SQUEEZE:

The gradual loss of coastal habitats and natural features due to their inability to move inland in response to rising sea levels.

DETAILED DESIGN:

The detailed design phase of a project means the options or choices of a design is taken to a higher level of detail.

DREDGING:

Removing sand, silt, rock, or other materials from the sea bottom through methods like excavation, digging, scraping, draglining, or suction dredging.

ENVIRONMENTAL DESIGNATIONS:

Protection orders at both national and international levels that safeguard specific environments. Some designations are legally binding, requiring the protection of designated areas or creating compensatory habitats of equal quality.

EROSION:

Coastal erosion is a natural process where waves, tides, currents and wind remove material like sediment, rocks, and manmade features from shorelines. This material is often deposited elsewhere along the coast or in offshore areas. Coastal erosion poses a risk to properties and infrastructure along the coast, potentially leading to their loss as the shoreline retreats due to erosion.

FLOOD AND COASTAL EROSION RISK MANAGEMENT (FCERM):

Managing the risks of flooding and coastal erosion to people, property and the natural environment through minimising, predicting and managing the risk.



FLOOD GATE:

A watertight gate left open during normal conditions, but can be closed to form a flood defence when required.

FLOOD RISK MANAGEMENT PLANS (FRMPs):

Flood risk management plans (FRMPs) explain the risk of flooding from rivers, the sea, surface water, groundwater and reservoirs. They also set out how authorities will work with communities to manage flood risk over the next 6 years.

GABION:

A metal cage filled with rocks often used in riverbank and coastal protection.



GEOMATICS:

Is a branch of science that refers to the methods and technologies used to collect, analyse, process and present geographic data.

GROYNE:

A shore protection structure built perpendicular to the shore; designed to trap sediment.



HARD ENGINEERING:

Physical manmade structures such as sea walls, breakwaters, groynes and revetments. These help to manage and control flooding and coastal erosion.

HOLD THE LINE (HTL):

This involves maintaining or improving defences to keep the current shoreline position e.g. hold the coastline where it is currently.

HYDRAULIC MODELLING:

Used by engineers, hydraulic modelling refers to the mathematical process using real world data to analyse and simulate water systems, and in coastal regions to simulate the outcomes of climate change and extreme weather events.

INFRASTRUCTURE:

The basic systems and services, such as transport (i.e. roads and railways) and power supplies, that a country or organisation uses to work effectively

LIKELIHOOD:

The chance of flooding occurring.

High likelihood: A flood event is likely on average once in every ten years (1:10). Or a 10% chance in any one year.

Medium likelihood: A flood event is likely on average once in every two hundred years (1:200). Or a 0.5% chance in any one year.

Low likelihood: A flood event is likely on average once in every thousand years (1:1000). Or a 0.1% chance in any one year.

LOCAL AUTHORITY LOCAL PLAN:

A plan that sets out the local planning priorities and policies for an area, prepared by the local planning authority (LPA), usually the council or the national park authority.

MANAGED REALIGNMENT:

Allowing the shoreline to move backwards or forwards with management to control or limit movement.

MEAN HIGH WATER (MHW):

The average of all high waters observed over a sufficiently long period.

MEAN LOW WATER (MLW):

The average of all low waters observed over a sufficiently long period.

MITIGATION:

Reducing or limiting the effect of greenhouse gases that drive climate change.

NATURAL FLOOD MANAGEMENT (NFM):

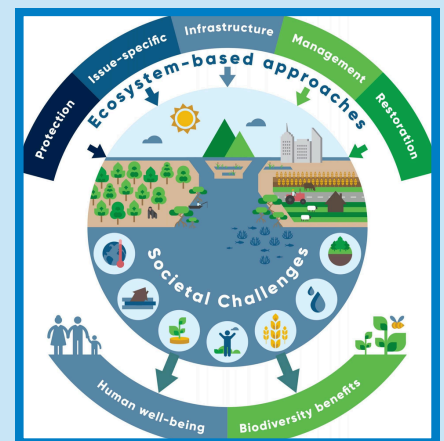
Using natural methods to reduce the risk of flooding or coastal changes, such as restoring river bends, adjusting land management to improve soil water absorption, and creating saltmarshes to absorb wave energy. It is a nature-based solution which can be used alongside more traditional engineering methods.

NATURAL CAPITAL:

The world's stock of natural assets which include geology, soil, air, water and all living things.

NATURE BASED SOLUTIONS:

Actions that reduce the risk of flooding or coastal change which are inspired by natural processes. For example, reconnecting rivers with their natural floodplain or creating new water storage areas. The development of green-infrastructure is a further example of this method.



NEIGHBOURHOOD (DEVELOPMENT) PLAN:

A plan prepared by a neighbourhood forum or parish council for a designated area. In law this is known as a neighbourhood development plan in the Planning and Compulsory Purchase Act 2004.

NO ACTIVE INTERVENTION (NAI):

A policy that means no investment will be made in coastal defences or other operations other than for safety reasons.

Outline Business Case (OBC):

An OBC refers to a structured document that outlines the justification, feasibility, and expected benefits of a proposed coastal management or adaptation initiative. It is typically used to secure funding and approval from relevant authorities.

PARTNERSHIP FUNDING:

The current DEFRA (Department for environment, Farming and Rural Affairs) policy involves a funding system for all FCERM projects seeking central government funding in England. The policy aims to help communities invest in and benefit from FCERM measures, that central government funding alone could not afford.

PROPERTY FLOOD RESILIENCE (PFR):

Measures people can take to help keep flood water out of their home or business; or limit the damage if it does. Examples include flood gates over doors, tiled floors or raised plug sockets.

RESILIENCE:

The ability for people and places to plan, protect, respond to, and recover from flooding and coastal changes. This includes making the best land use and development choices and improved protection measures, and recovering from these events whilst continuing to adapt to climate change.

RETURN PERIOD:

A measure of the rarity of a flood event. It is the statistical average length of time separating flood events of a similar size. (See Likelihood).

REVETMENT:

Sloping structures placed along the seaward side of the coastline to absorb wave energy and protect the shoreline from erosion. They are often made of rocks or concrete faced structures.



RIPARIAN LANDOWNERS:

People who own a stretch of watercourse that runs on or under their land; or is on the boundary of their land, up to its centre. Riparian landowners have legal responsibilities for the stretch of watercourse they own.

RIPRAP:

A range of rocky material placed along shorelines, bridge foundations, steep slopes, and other shoreline structures to protect from scour and erosion. Can be referred to as Rock Armour or Rock Toe.



ROLLBACK:

Rollback looks at how moveable assets like caravan parks can be physically relocated further inland away from the threat of coastal erosion whilst improving the quality of the local environment and sustaining the communities which are dependent on coastal tourism

SEA LEVEL RISE:

An increase in the level of the world's oceans due to the effects of climate change.

SEAWALLS:

Walls built along the shoreline to protect against flooding. Similar to an embankment, but often made of concrete or masonry.



SETBACK FLOODWALL:

A new floodwall setback from the existing defence.

SHEET PILING:

Vertical steel sheets driven into the ground, in place of, or as part of new defences.

SHORELINE MANAGEMENT PLANS (SMP):

These plans set out how the coast should be best managed over the next 100 years. They identify policies to help manage coastal erosion and flooding risk over a specific stretch of the English coastline.

SOFT ENGINEERING:

Soft methods where the natural environment is used to help reduce coastal erosion. These methods include dredging and beach nourishment to help absorb wave energy. They are less intrusive to natural coastal processes compared to hard engineering structures

**SSSI - SITE OF SPECIAL
SCIENTIFIC INTEREST:**

A Site of Special Scientific Interest is a conservation designation denoting a protected area in the United Kingdom. Referred to as an Area of Special Scientific Interest in Northern Ireland and the Isle of Man.

STORM SURGE:

Resulting from a storm, a rise in the sea level on an open coast.



STAKEHOLDER:

Any people or groups that are interested or affected by a decision to be made. This could be a policy, initiative or project. The impact they face may be direct or indirect.

**STANDARD OF
PROTECTION (SoP):**

The level of protection from flooding the defences provide. This is usually expressed in the size of flood the option protects against.

**STRATEGIC ENVIRONMENTAL
ASSESSMENT (SEA):**

This assessment is undertaken to ensure that the environment is considered, and issues are addressed during the development of a plan or strategy, taking into account technical, economic and other factors. In doing so it can contribute to the promotion of sustainable development and environmental protection.

**SURFACE WATER
FLOODING:**

Flooding that occurs when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

SUSTAINABLE DRAINAGE SYSTEMS (SuDS):

Drainage solutions that offer a more natural approach to drainage systems, and are designed to manage water as close to its source as possible. They mimic nature and help to slow down water runoff and transport surface water. They provide areas to temporarily store water in, allow water to soak into the ground and use vegetation to help transpire the water.

TIMEFRAMES:

Timeframes – In coastal projects, the terms short-term, medium-term, and long-term refer to different timeframes for planning and managing coastal change:

- **Short-term** (0 to 20 years) – Immediate actions to address current coastal risks, such as maintaining existing defences, emergency response measures, and small-scale adaptation strategies.
- **Medium-term** (20 to 50 years) – More substantial interventions to respond to predicted changes, such as modifying coastal management approaches, improving flood protection, and implementing sustainable adaptation measures.
- **Long-term** (50 to 100 years) – Strategic planning for significant coastal transformation, including managed retreat, large-scale infrastructure changes, and long-term resilience-building.

These timeframes help coastal planners and communities prepare for evolving environmental challenges while ensuring sustainable solutions.

TOE-SCOUR:

Also referred to as ‘scouring at the toe’, the term refers to damage at the base of a coastal structure caused by wave impact and sediment movement.

TRANSITION:

Coastal transition zones are areas where there’s a gradual change between different coastal environments, like land and sea, or between different types of coastal eco-systems. The EA **Coastal Transition Accelerator Programme** (CTAP) will explore how we can adapt to the effects of climate change on the coast.

UK CLIMATE CHANGE PROJECTIONS (UKCP18):

Climate predictions produced by the Met Office which provides the most up-to-date assessment of how the climate of the UK may change over the 21st century.

VULNERABILITY:

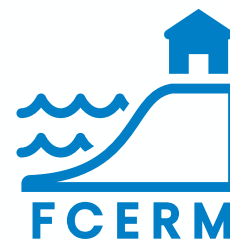
A practise to measure of how likely people or infrastructure may suffer long-term damage as a result of flooding. It helps to quantify the risks associated with flooding.

WAVE ENERGY DISSIPATION:

Process by which a wave loses its energy.

WAVE OVERTOPPING:

Occurs when water passes over a flood wall or other structure as a result of wave action. Wave overtopping may lead to flooding particularly in exposed coastal locations.



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