



## Flood Protection Glossary

Here we decode some common river and drainage engineering terms:

### **Asset**

A valuable structure or material used in, or alongside, a waterway. E.g. rock linings, groynes and floodgates.

### **Berm**

The strip of land beside the river. If there are stopbanks, it is the land between the river and the stopbank. The berm area is a natural extension of the main river channel and can carry water when the river is high.

### **Catchment**

The area of land from which water drains into a particular river, stream or drain.

### **Confluence**

Where two or more waterways meet.

### **Cumec**

A measure of water flow. 1 cumec equals 1 cubic metre of water passing a given point every second.

### **Detention dam**

A dam constructed across a valley to temporarily hold excess flood water in a defined ponding area. Water is then piped back into the main river channel in manageable amounts.

### **Flood plain**

An area of low-lying land alongside a river channel which can be covered with water when the river floods.

### **Gabion construction/basket**

A series of steel mesh baskets filled with river stones and lined up along the riverbank to prevent erosion. The baskets may be strengthened with steel rails and cable.

### **Gravel extraction**

Selectively removing surplus gravel in the river to maintain the flood-carrying capacity of the river channel without worsening bank erosion. Can also be used to correct river alignment and ease pressure against eroding riverbanks.

**Groynes**

Structures built into the riverbank, which stick out into the river to push water away from the bank edge. Can be made of rock, concrete, or fallen trees with the butt end anchored into the bank, and can be solid or permeable. Groynes help prevent erosion and trap silt, which helps build up eroded areas.

**Meander**

The natural wave-like pattern of a river on a flood plain.

**PMU (Permeable Mesh Unit)**

Wire fences built out into the river to trap debris and silt. Used to build up eroded areas.

**Reach**

A short length of river.

**Riparian margin**

The area of land alongside a river, often planted with trees.

**Rock lining (Rip Rap)**

Rock placed onto and below the riverbank to prevent erosion of the bank, bed and berm area.

**Scheme**

A defined area where planned river control or drainage improvement work has been agreed between Horizons and the ratepayers in that area. \

**Spillway**

An area designed to hold flood waters during times of high flow. Water spills out of the main channel into the area and then rejoins the main flow further downstream.

**Tied-tree works**

Felled trees are laid onto the riverbank and held in place with wire ropes or concrete weights. Used to prevent erosion.

**Toe**

The point where the riverbank meets the bed.

**Tree layering**

Trees, often willows, are partially cut and laid over onto the riverbank. The trees re-grow to form a stable mass of plant material, which helps to prevent erosion.

**Tributary**

A stream or small river that flows into a larger river.