

## Fluvial Flood Extents and Benefitting Areas

### Fluvial flooding occurs when rivers and streams overtop their banks and water flows out onto the adjacent low-lying areas

The map shows the modelled extent of land that might be flooded by rivers (fluvial flooding) during a theoretical or 'design' flood event with an estimated probability of occurrence in Ballinasloe. The Target Standard of Protection (SoP) of the Scheme is the 1% AEP (Annual Exceedance Probability).

The map refers to flood event probabilities in terms of a percentage Annual Exceedance Probability, or 'AEP'.

**Annual Exceedance Probability Definition:**

The size of a flood is described in terms of its probability (or how likely it is to occur).

Flood event probabilities are referred to in terms of a percentage Annual Exceedance Probability, or 'AEP'. This represents the probability of an event of this, or greater, severity occurring in any given year. They are also commonly referred to in terms of a return period (e.g. the 1 in 100-year flood), although this period is not the length of time that will elapse between two such events occurring, as, although unlikely, two very severe events may occur within a short space of time.

**Take the example of the 1 in 100-year flood: The 1 in 100-year flood is the same as the 1% AEP flood.**

This is a large flood with:

- Very large volumes of flood water.
- Very high flood levels
- A large area of land, not normally covered by water is covered by flood water.

### Benefitting Areas

These are the areas within Ballinasloe currently at risk of flooding that will benefit from the Scheme by being defended against Fluvial Events up to the 1% AEP standard.

