



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

There is a significant risk of flooding throughout Ballinasloe from both the River Suck and its principal tributaries.

The 'predictive' flood map shows areas that are predicted to be flooded during a theoretical or 'design' flood event with an estimated probability of occurrence. In other words, a

computer model has predicted that these areas would flood in a design flood event.

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).

ANNUAL EXCEEDANCE PROBABILITY	RETURN PERIOD (YEARS)
10% (High Probability)	10
1% (Medium Probability)	100
0.1% (Low Probability)	1000

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.

But the probability (or likelihood) of this flood occurring is low:

- Every single year there is a 1 in 100 chance or 1% probability of this flood occurring.

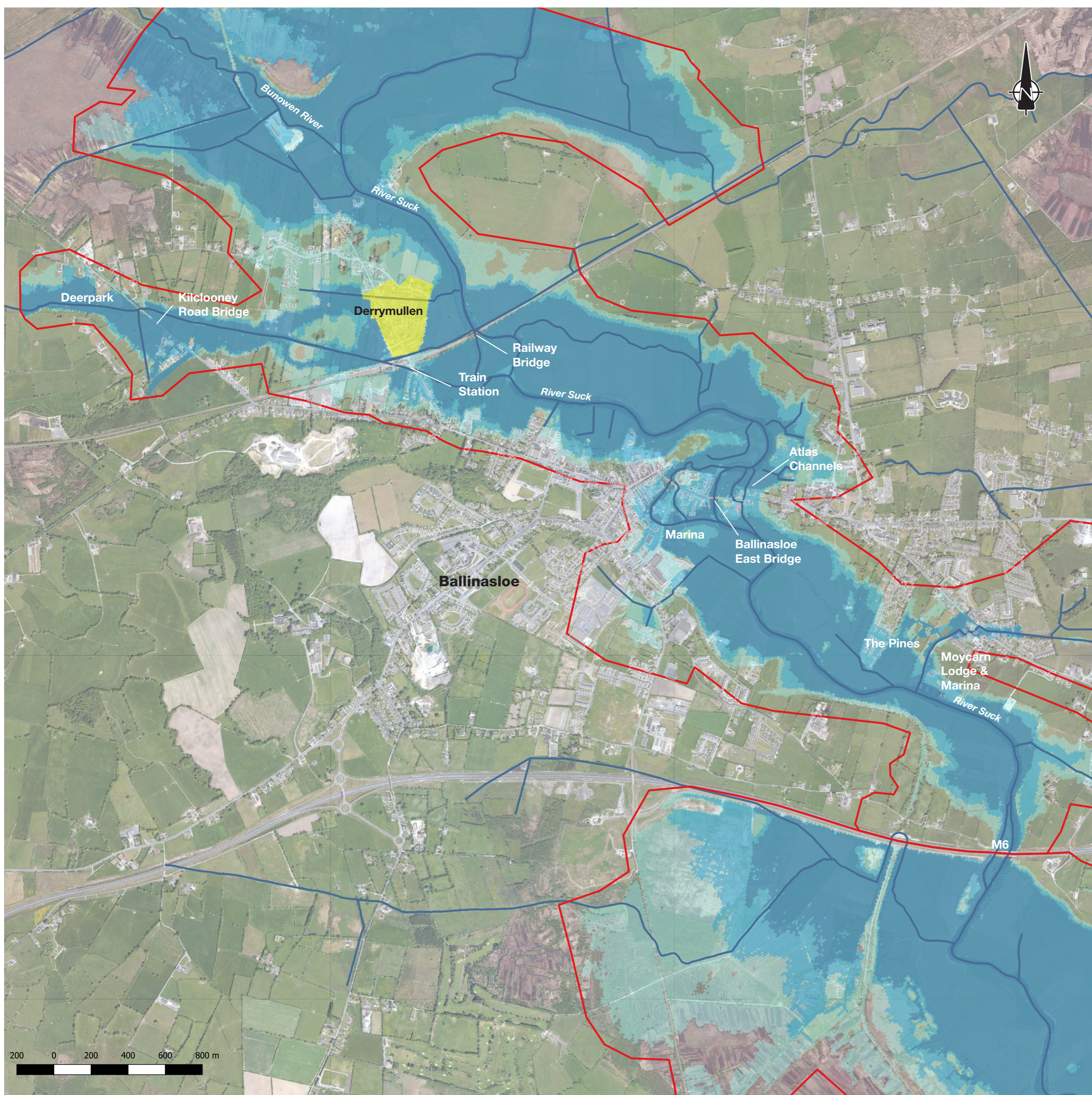
And compare to the example of the 1 in 10-year flood: The 1 in 10-year flood is the same as the 10% AEP flood.

This is a much lower sized flood with:

- A volume of flood water, greater than normal conditions, but much less than during the 1 in 100-year flood.
- Flood levels higher than normal conditions, but much less than during the 1 in 100-year flood.
- An area of land not normally covered by water is covered by flood water, but much less than during the 1 in 100-year flood.

And the probability (or likelihood) of this flood occurring is much higher than the 1 in 100-year flood:

- Every single year there is a 1 in 10 chance or 10% probability of this flood occurring.



Legend

- River Centre Line
- 10% AEP Fluvial Flood Extent
- 1% AEP Fluvial Flood Extent
- 0.1% AEP Fluvial Flood Extent
- Extent of the hydraulic modelling
- Derrymullen - currently defended at 1%AEP