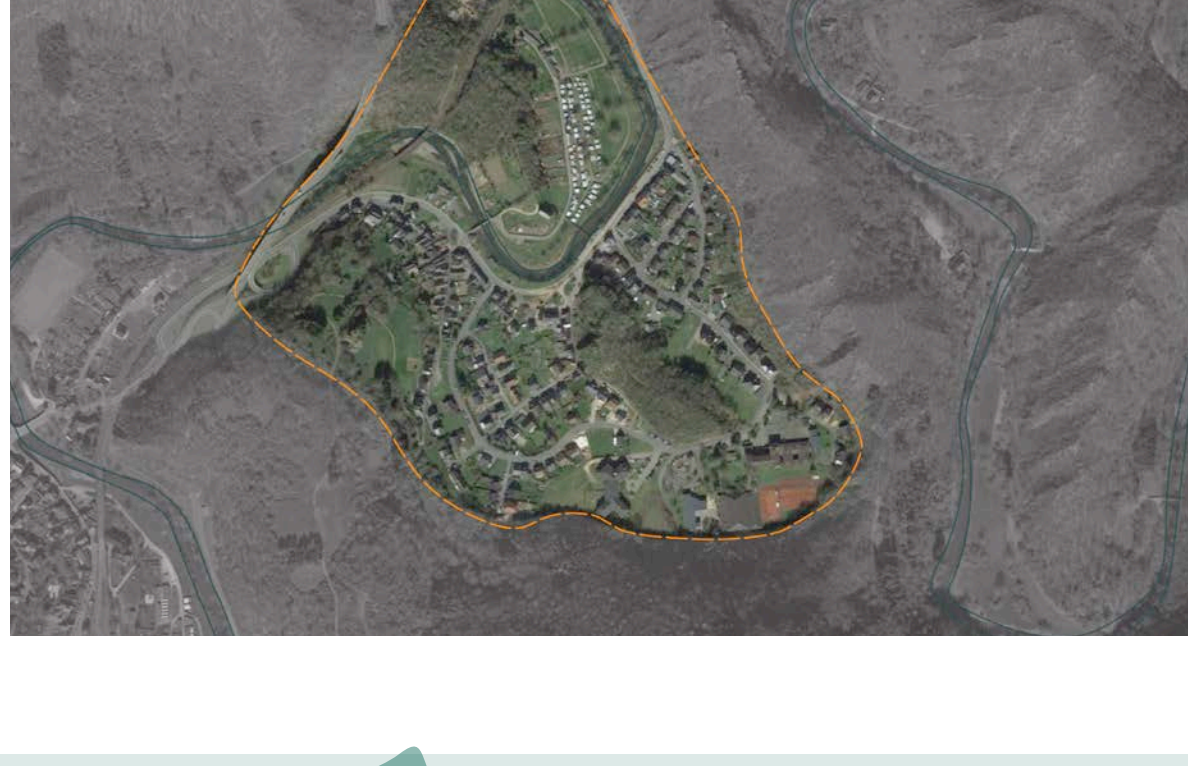


## ALTENBURG, ALTENAHR

What happened?

Anne Bååbjerg Lysvåg

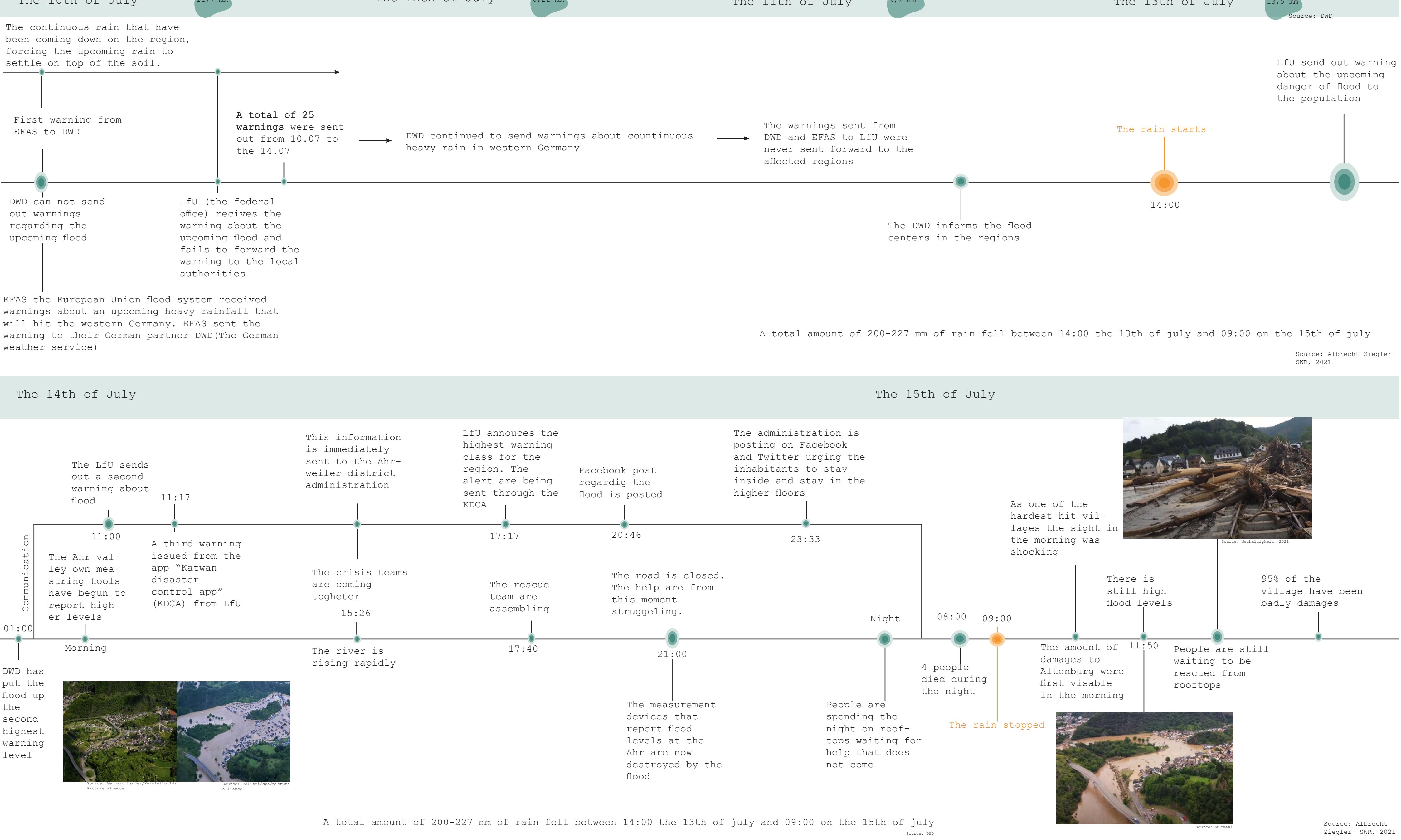


Altenburg, a small community within the Altenahr municipality is the home to 600 inhabitants.

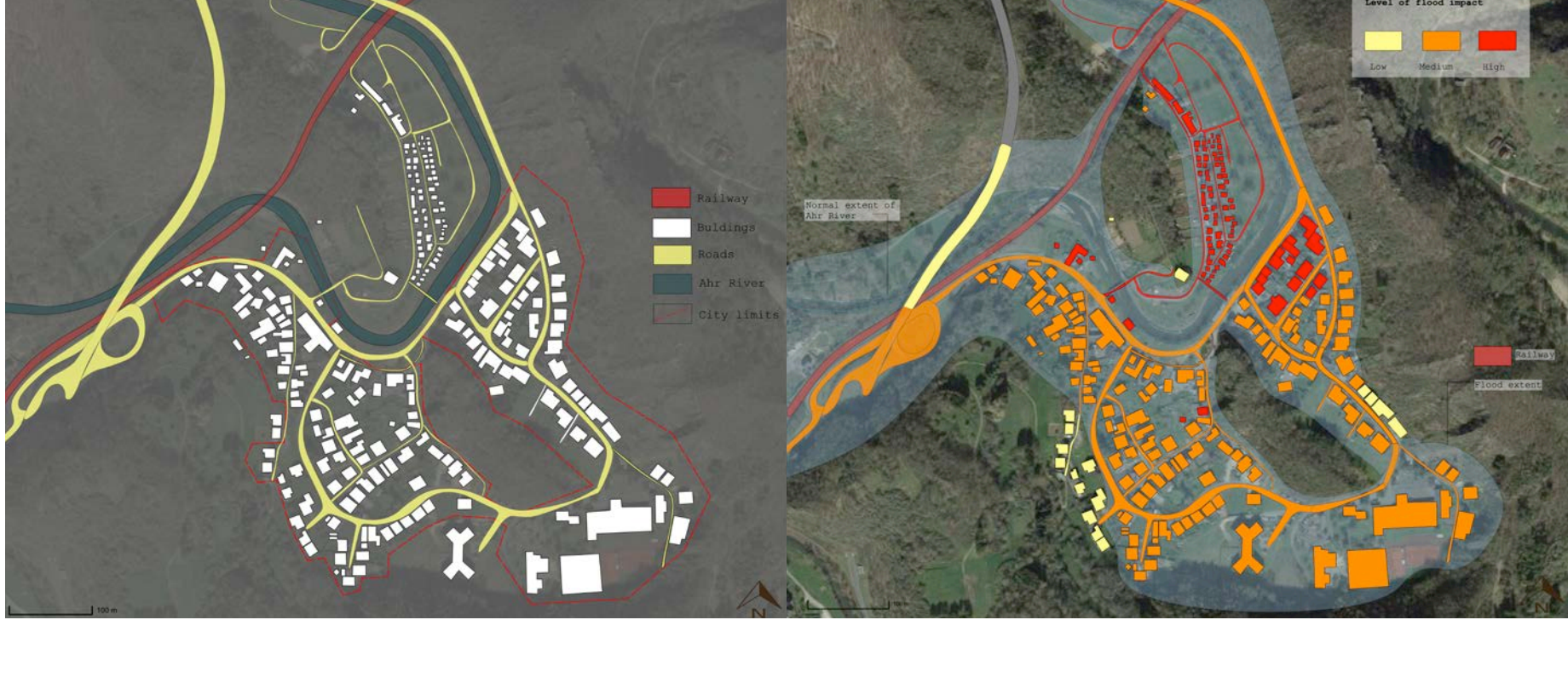
Altenburg which is located along the Ahr river in the ahr valley. This small community experienced devastating losses and damages under the flood of July 2021.

In July 2021 an extreme rain fell in the region causing the river to exceed the river banks by 7.8 meters. This caused confusion, panic and in some cases death.

This report is going to look into the event and try to understand how a catastrophe this size can happen, whats happening now and how to plan for the future.



## Material damages



## Bathtub effect



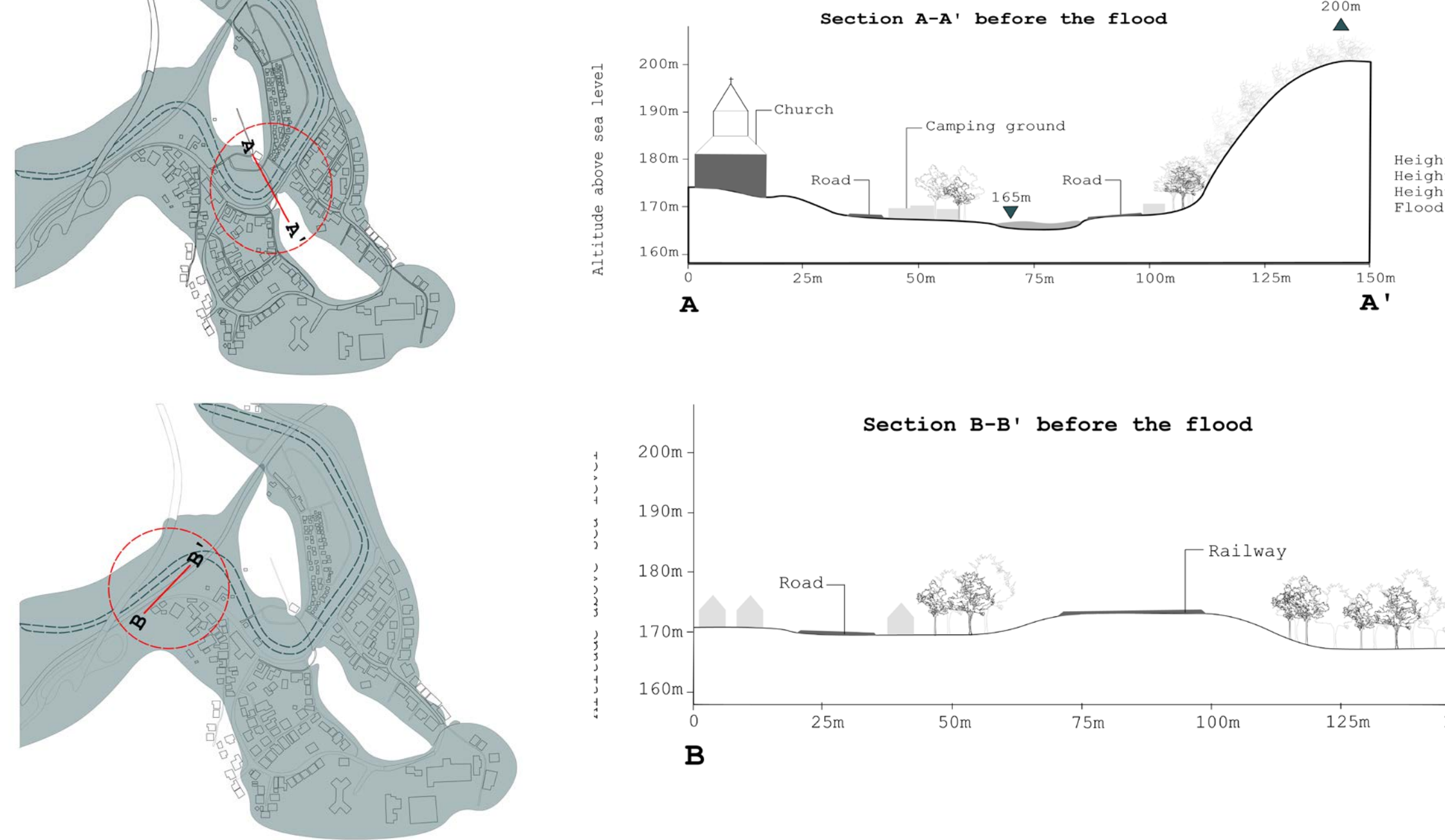
The contour lines shows how flat the area the village lies on. Displaying this as a area the river can easy gain access to.

## Flood levels

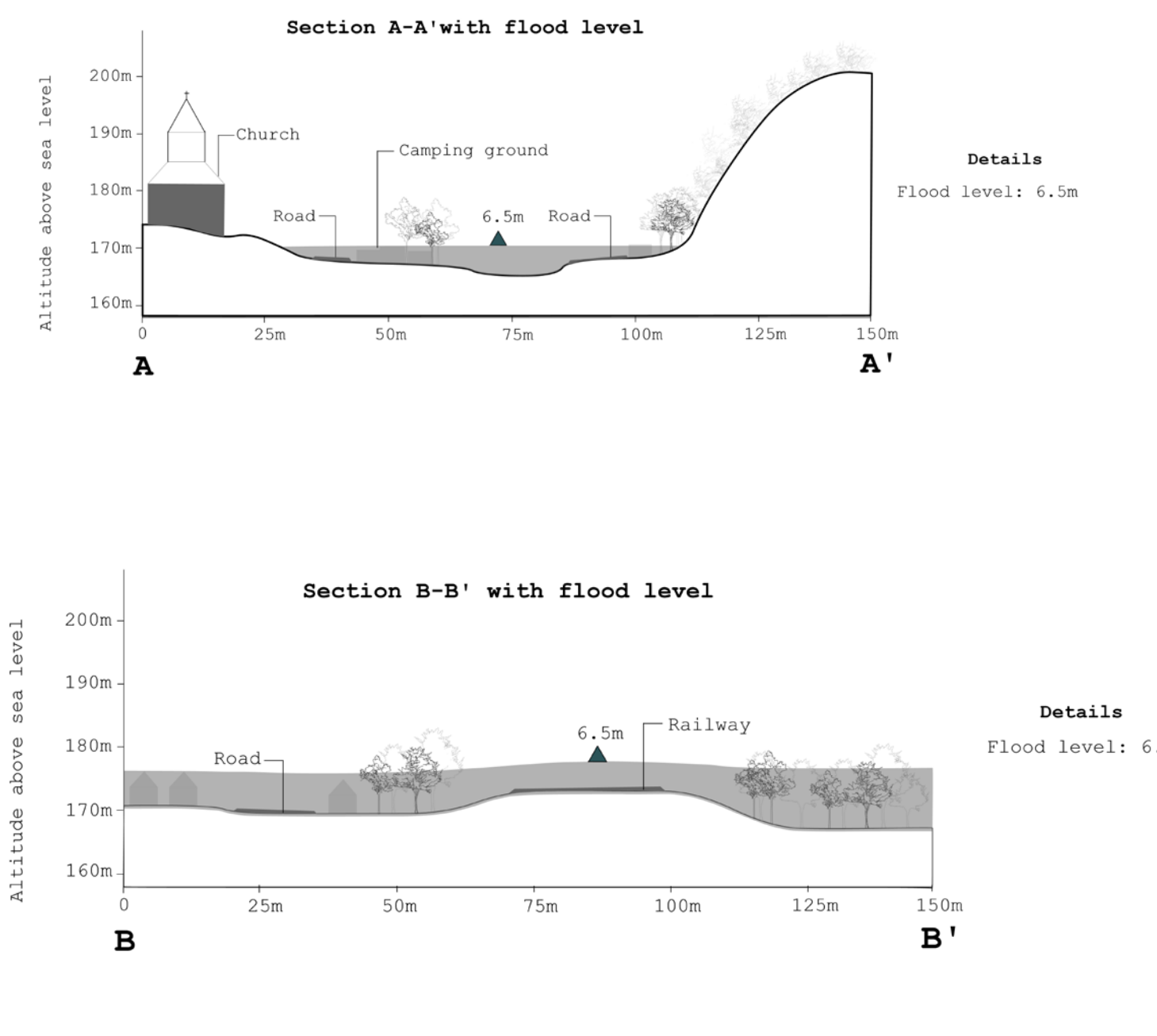


## Sections

### Before the flood

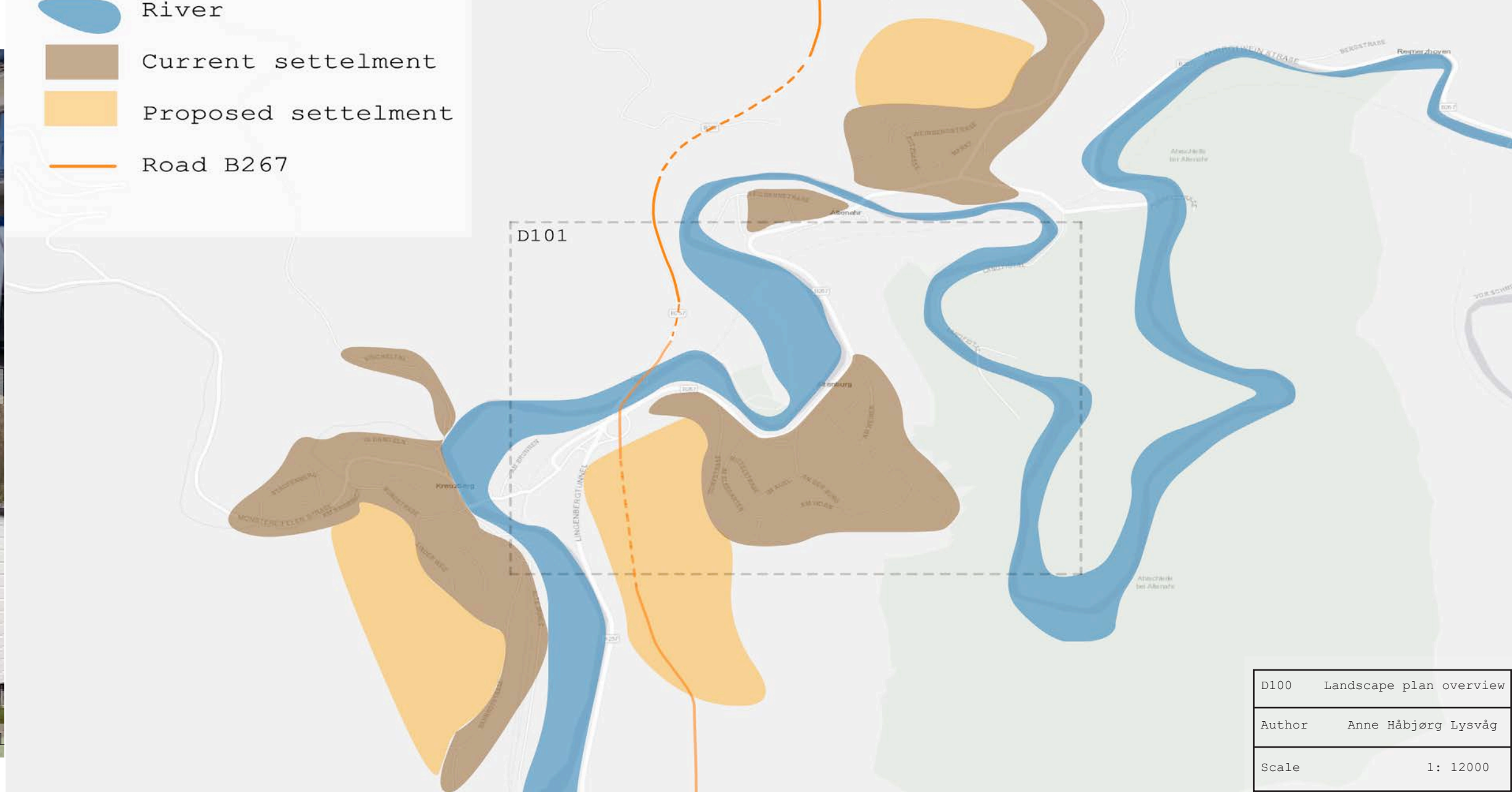


### During the flood

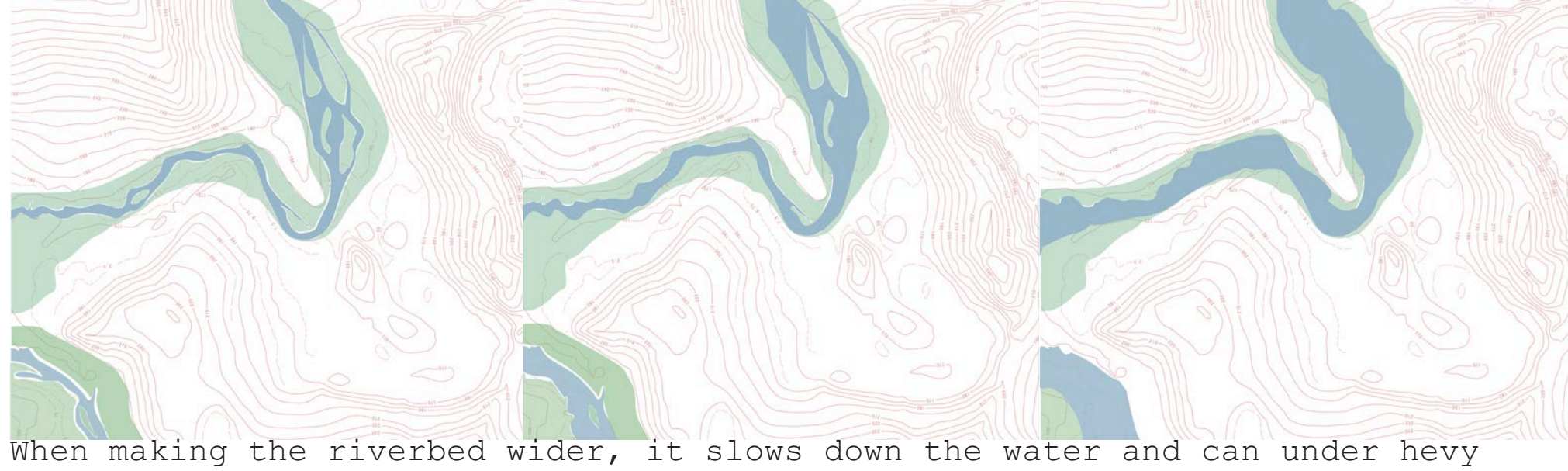


## What happens now?

Temporary elements is the new normal.



## Giving room for the fluctuating river



When making the riverbed wider, it slows down the water and can under hev water flow store a larger amount. This is important to do in the areas where it is room for this possibility.

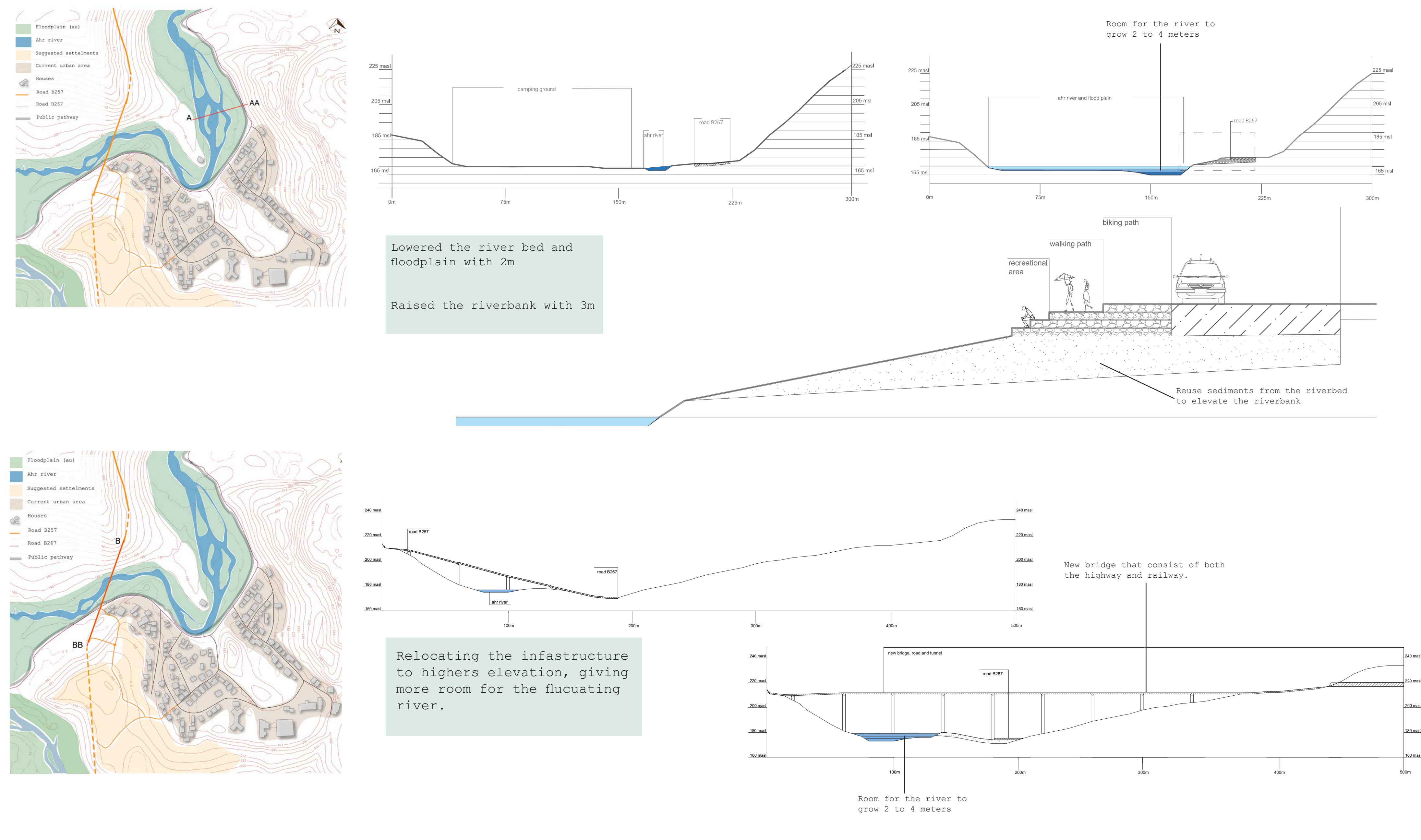
## Relocating the hardest hit houses



New houses should be built over 180 masl to avoid the the next flood.

If houses in the flood zone should be rebuilt or restores they should either be elevated or have a first floor that handles the flood.

## Sections



Lowered the river bed and floodplain with 2m

Raised the riverbank with 3m

Relocating the infrastructure to higher elevation, giving more room for the fluctuating river.

## New road and river system in altenburg



## Literature list:

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