CHAPTER 6 · ASSESSMENT

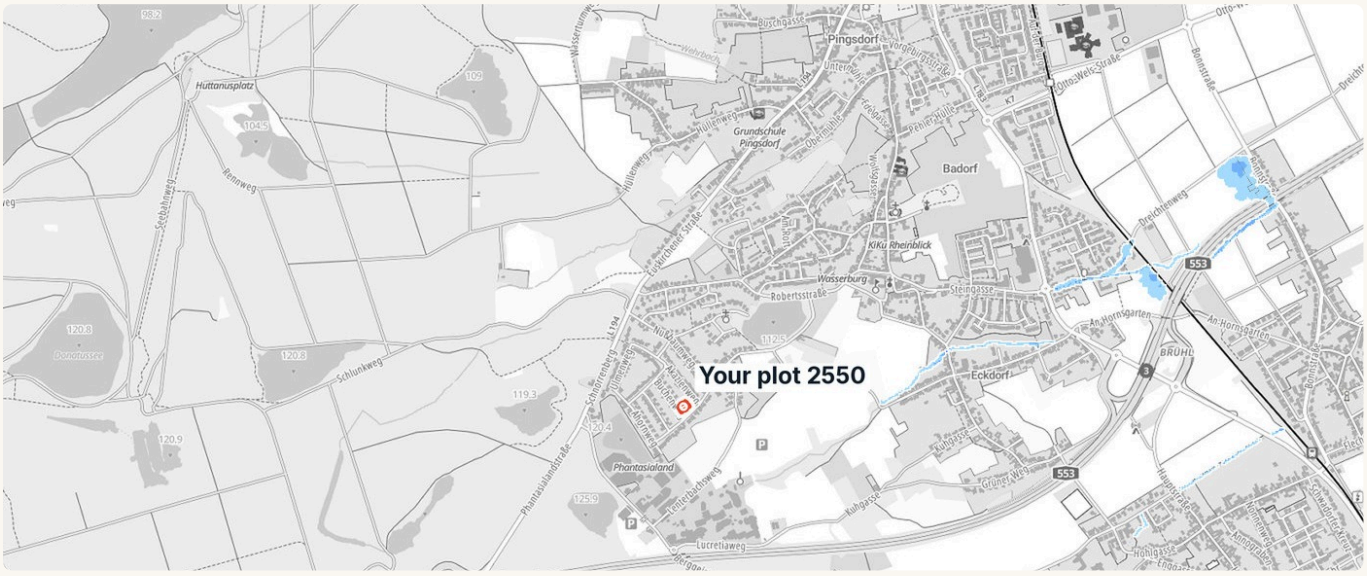
# Water

ASSESSMENT OF PAGES 48–59

1 context  1 check first

## Check first

The nearest flood area (HQ-extrem) is 635 m away. The state heavy-rain map shows water on about 2% of the plot area; highest mapped depth class: extreme, 90 mm/h: 50–100 cm; 100-year, 1 hour: 50–100 cm.




Water depth in a 100-year flood. Thematic evidence for this plot; legend, scale and source on page 54. © GeoBasis-DE / BKG (2026) CC BY 4.0 · Data source: Land NRW · 2026 retrieved · dl-de/by-2.0 · modified display

**707 m**
to HQ100

**635 m**
HQ-extrem

**outside**
drinking-water protection area

**190 m**
“Mondsee” (OSM)

## What the data says

| READING | FINDING | PAGE |
|---|---|---|
| CONTEXT | The nearest flood area (HQ-extrem) is 635 m away. | p. 49 |
| CHECK FIRST | The state heavy-rain map shows water on about 2% of the plot area; highest mapped depth class: extreme, 90 mm/h: 50–100 cm; 100-year, 1 hour: 50–100 cm. | p. 58 |

**What we would do next**

1. Insurer: cover against flooding and heavy rain, ZÜRS zone?
2. Ask the Gemeinde for a heavy-rain map.
3. Look at the cellar, the heating and the yard drainage at the viewing.

## The 12 data pages of this chapter

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WATER

# Protected areas and watercourses

For context

What the water data at the plot mean, and what they do not.

### DESIGNATED ÜBERSCHWEMMUNGSGEBIET (STATUTORY FLOOD AREA): PLOT OUTSIDE

The nearest designated flood area is 706 m away.

Source: “Land NRW (ELWAS) · Überschwemmungsgebiete NRW, festgesetzt und vorläufig gesichert· dl-de/by-2.0”

### DRINKING-WATER PROTECTION AREA: PLOT OUTSIDE

The plot lies in no designated water protection area; the nearest (“Hochkirchen”) is 8,100 m away. **What to do:** Before a ground-source heat pump or an oil tank, ask the water authority whether a notification or permit is needed. Installing, substantially altering or changing the hazard category of an inspection-required tank generally needs six weeks’ notice; exemptions from notification can apply under a qualifying approval procedure (§ 40(3) AwSV).

Source: LANUK NRW, Bezirksregierungen · Festgesetzte Trinkwasserschutzgebiete· dl-de/zero-2.0

### “MONDSEE” 190 M FROM THE BOUNDARY

OpenStreetMap records an area of water here without distinguishing river, lake or pond. Water this close shapes the location and the price. In a flood the water level can rise; how far is shown by the Land's flood map. **What to do:** Ask the Gemeinde whether the shore and the way to the water are public.

Source: OpenStreetMap, extract of 22 September 2026

## Supplementary federal reading

**Flooding, medium probability**. Nearest mapped flood area for this scenario: about 710 m. This layer does not assess heavy rainfall or other flood scenarios. — BfG.

**Flooding, low probability**. Nearest mapped flood area for this scenario: about 640 m. This layer does not assess heavy rainfall or other flood scenarios. — BfG.

The raster, rounding and mapping date can change a measured distance. Check the current Land map and heavy-rain runoff for the decision.

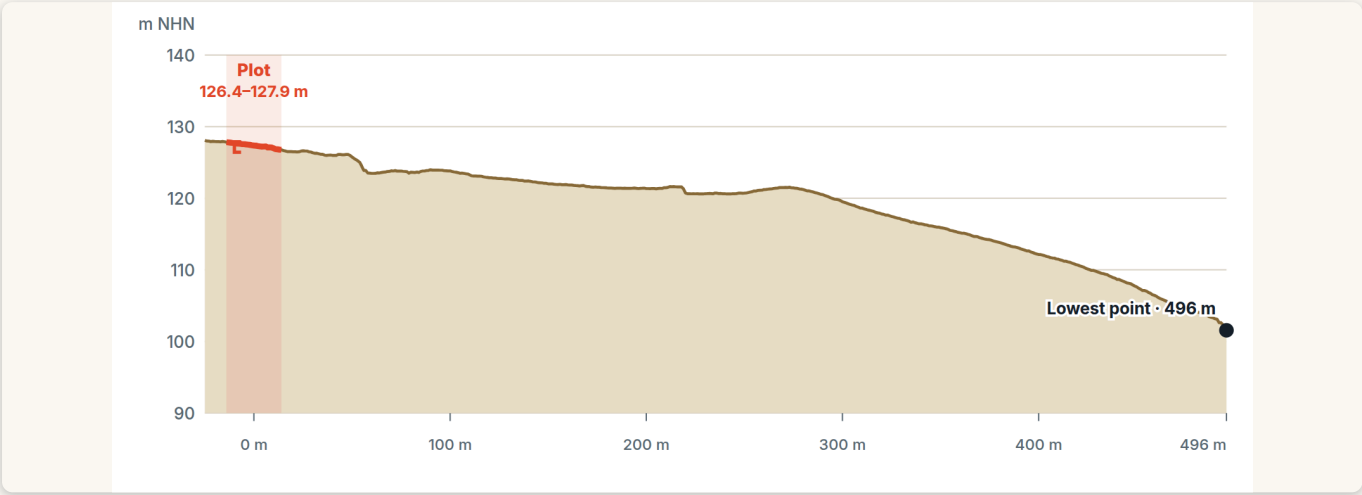
© OpenStreetMap contributors (ODbL); “Land NRW (ELWAS) · Überschwemmungsgebiete NRW, festgesetzt und vorläufig gesichert· dl-de/by-2.0”; LANUK NRW, Bezirksregierungen · Festgesetzte Trinkwasserschutzgebiete· dl-de/zero-2.0; Read for this order · 16 Nov 2026

WATER

# Flooding, terrain and heavy rain

For context

Every flood scenario with its distance and the water depth at the plot, as the Land service returns them.




*Ground section from the plot to the lowest point within 500 m, heights from the terrain model (1 m grid), vertically exaggerated.*

## All flood scenarios checked

| SCENARIO | RETURN PERIOD | NEAREST AREA | WATER DEPTH AT THE PLOT |
|---|---|---|---|
| HQ100 | once in 100 years | 707 m | does not reach the plot |
| HQ-extrem | rarer than once in 100 years / extreme flood | 635 m | does not reach the plot |

**PLOT 126.4–127.9 M ABOVE SEA LEVEL (NHN)**

Profile-line starting height: 127.4 m NHN. Towards the lowest point within 500 m 496 m away the ground falls by 25.8 m (to 101.6 m NHN). The lowest point can be the water surface of a lake, pond or ditch. The profile is one cross-section; parcel minimum and maximum heights cover all grid cells in the parcel. **What to do:** At the viewing, check hollows and runoff routes on and beside the parcel.

Source: DGM1 © Geobasis NRW (dl-de/zero-2.0), read 16 Nov 2026

**GROUND HEIGHT 126.44 TO 127.88 M (DHHN2016), MEAN SLOPE 6.1%**

The lowest point within the parcel lies to the east; this is not a calculation of water runoff. Ground-height difference within the parcel: 1.44 m. Mean slope is the average of the local gradients of terrain-grid cells within the parcel. **What to do:** In rain, look at the yard drainage and the cellar entrances.

Source: Geobasis NRW · DGM1 · dl-de/zero-2.0, 1 m grid

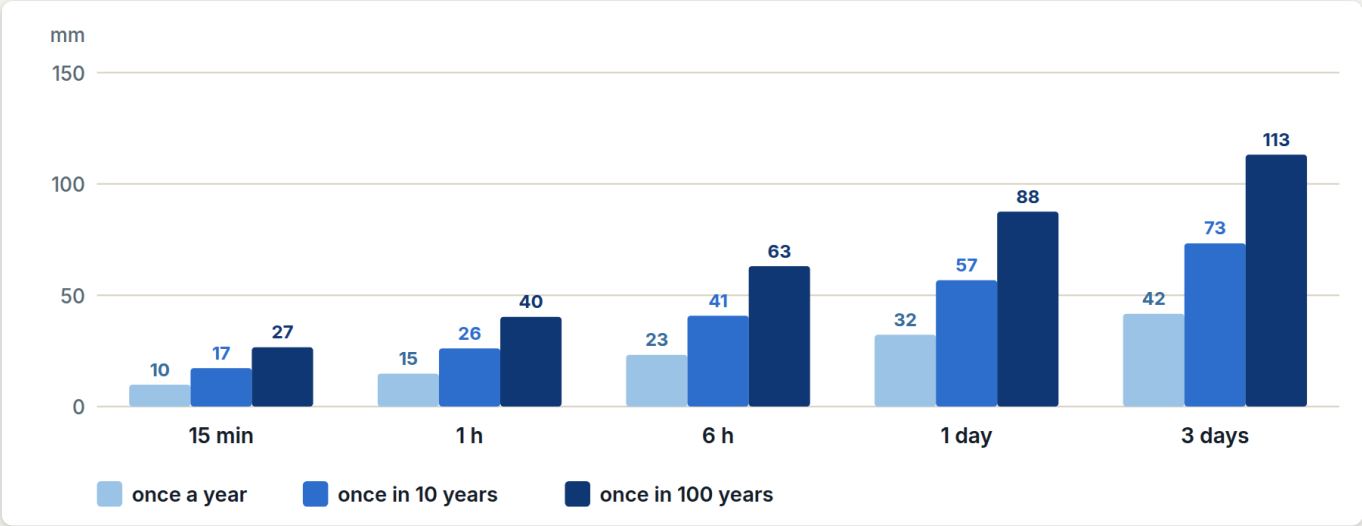
DGM1 © Geobasis NRW (dl-de/zero-2.0); Flood hazard maps: © Land NRW, dl-de/by-2.0; read for the order of 16 November 2026; Geobasis NRW · DGM1 · dl-de/zero-2.0; BKG; DWD KOSTRA-DWD-2020 · Flood-scenario distances: HQ100: BfG; HQ-extrem: BfG

WATER

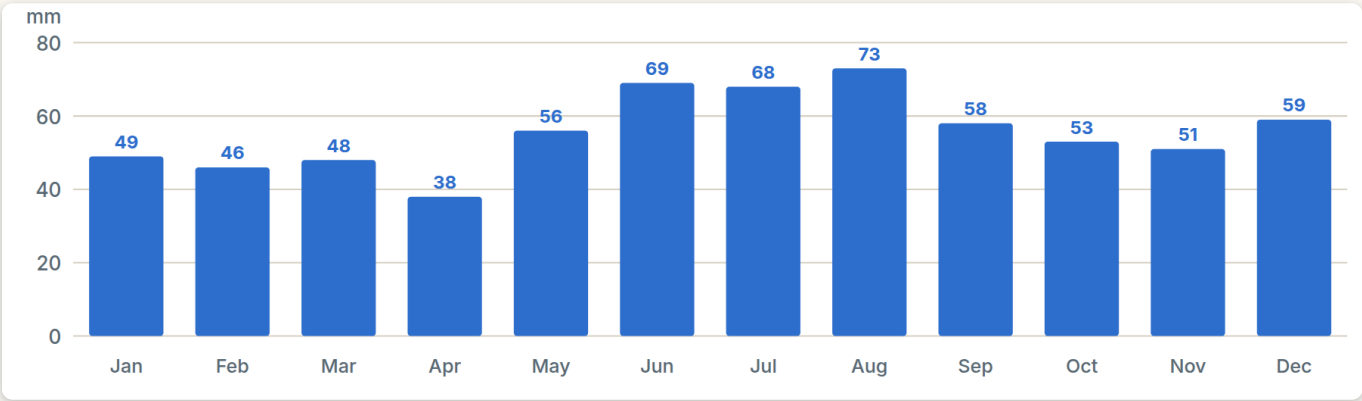
# Heavy rain and rain over the year

For context

How much rain can fall in one hour, and when it rains most.




*Rain depth by duration and return period, KOSTRA-DWD-2020, grid cell 143100 (5 km). A statistic of the cell, not a measurement on the plot.*




*Mean rain per month 1991–2020, DWD 1 km grid at the parcel centre. Averages, not a single year.*

### HEAVY RAIN: 40.3 MM IN ONE HOUR, STATISTICALLY ONCE IN 100 YEARS

A rain that comes about every 10 years here brings 26.1 mm in one hour. In the 100-year rain (40.3 mm in one hour) that is 34 m³ of water in one hour on the 842 m² plot in total, calculated over the whole plot area; what does not soak in runs off. **What to do:** At the viewing, check where water runs off the plot: slope towards the house, basement stairs, light wells, backflow valve.

Source: © Deutscher Wetterdienst, KOSTRA-DWD-2020 (CC BY 4.0), as of 2020, read 16 Nov 2026

### RAIN PER YEAR: 668 MM (MEAN 1991–2020)

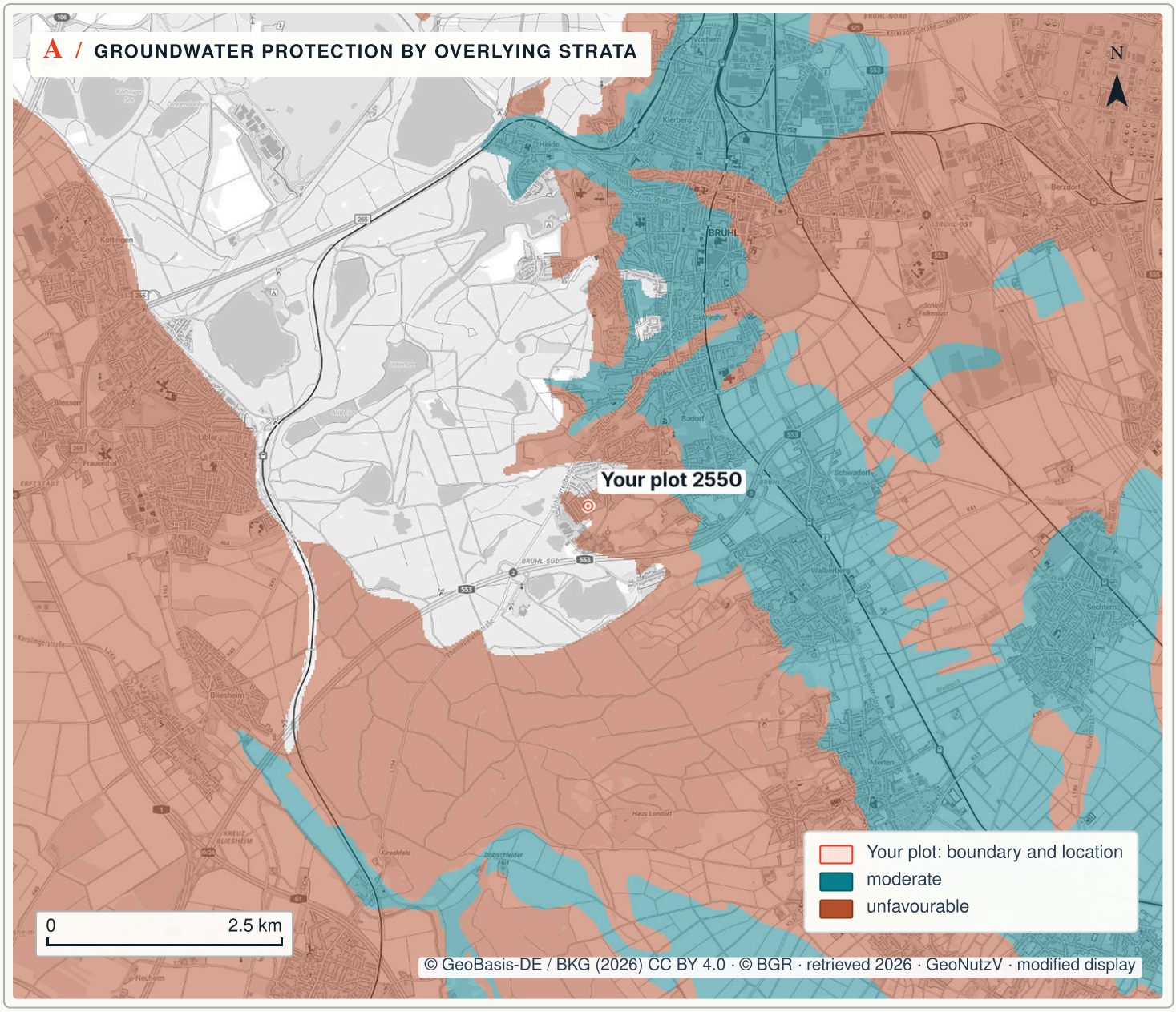
The wettest month is August (73 mm), the driest April (38 mm).

Source: © Deutscher Wetterdienst, CDC grids 1991–2020 (CC BY 4.0), read 16 Nov 2026

© Deutscher Wetterdienst, KOSTRA-DWD-2020 (CC BY 4.0); © Deutscher Wetterdienst, CDC grids 1991–2020 (CC BY 4.0)

# Groundwater protection by overlying strata

Groundwater protection by overlying strata at the marked plot.




- Source scale: **1:1m**
- Read for this order: **16 Nov 2026**
- Frame width: **12 km**

## WHAT IT MEANS FOR YOUR PLOT

- Regional protection at the plot: unfavourable. This does not establish drinking-water quality.

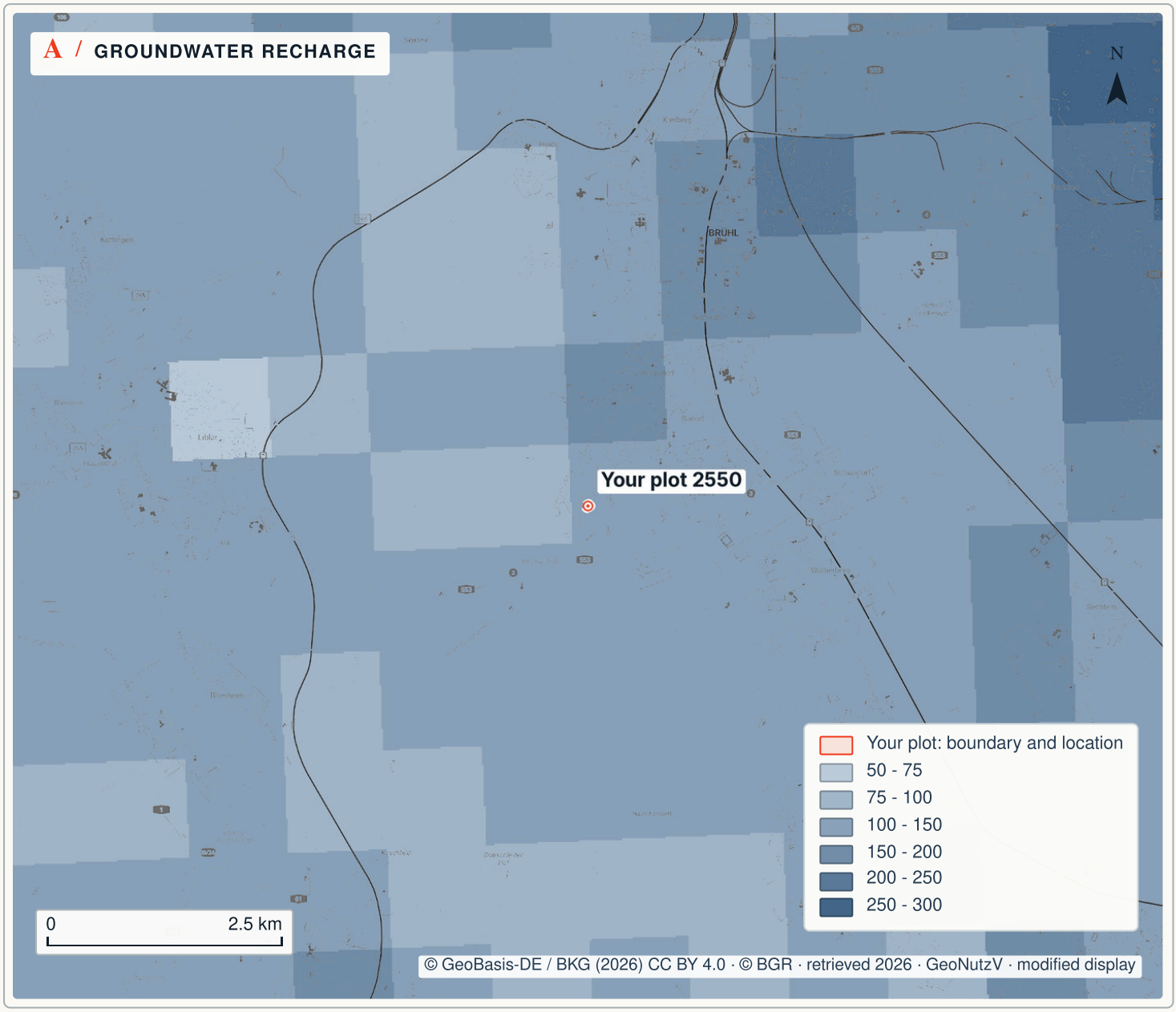
## BEFORE YOU BUY

- For infiltration or a ground-source probe, ask the water authority about the protection provided by the overlying layers.

**SOURCES AND LIMITS** © BGR · retrieved 2026 · GeoNutzV · modified display · 16 Nov 2026

# Groundwater recharge

Groundwater recharge at the marked plot.




- Source scale: **1:1m**
- Read for this order: **16 Nov 2026**
- Frame width: **12 km**

## WHAT IT MEANS FOR YOUR PLOT

- Point query, not inferred from the map colour: Groundwater recharge in the source cell: 119 mm/year (model period 1961–1990). This is not a measured water level.
- The map is an overview only; its colour at the plot does not confirm this point reading.

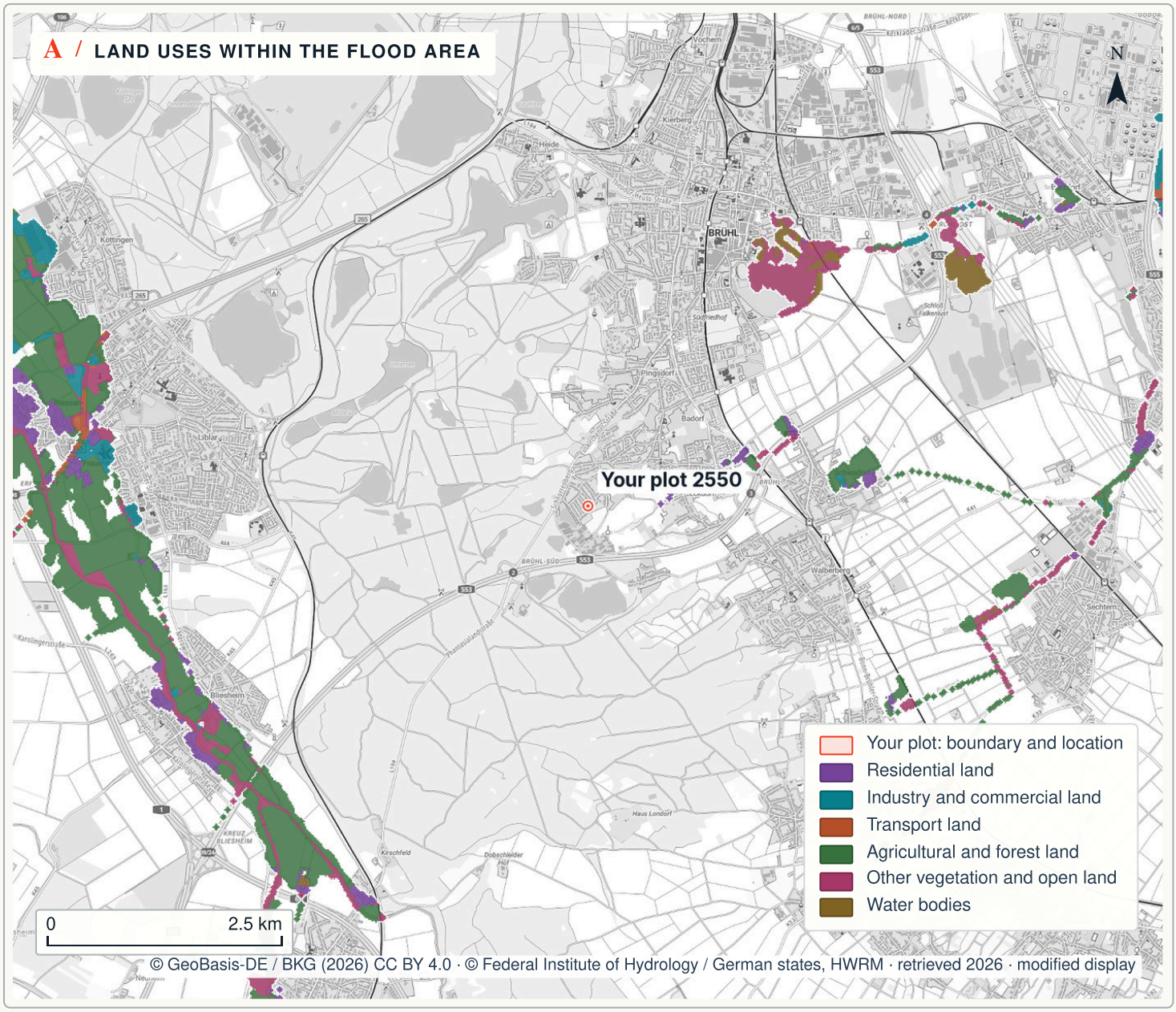
## BEFORE YOU BUY

- The recharge rate describes the regional water balance; an infiltration design also needs a test at the proposed location.

**SOURCES AND LIMITS** © BGR · retrieved 2026 · GeoNutzV · modified display · 16 Nov 2026

# Land uses within the flood area

Land uses within the flood area at the marked plot.




- Source scale: **official**
- Read for this order: **16 Nov 2026**
- Frame width: **12 km**

## WHAT IT MEANS FOR YOUR PLOT

- No affected land use is mapped at the plot for the river flood of medium probability. This does not rule out heavy rainfall or other flood scenarios.

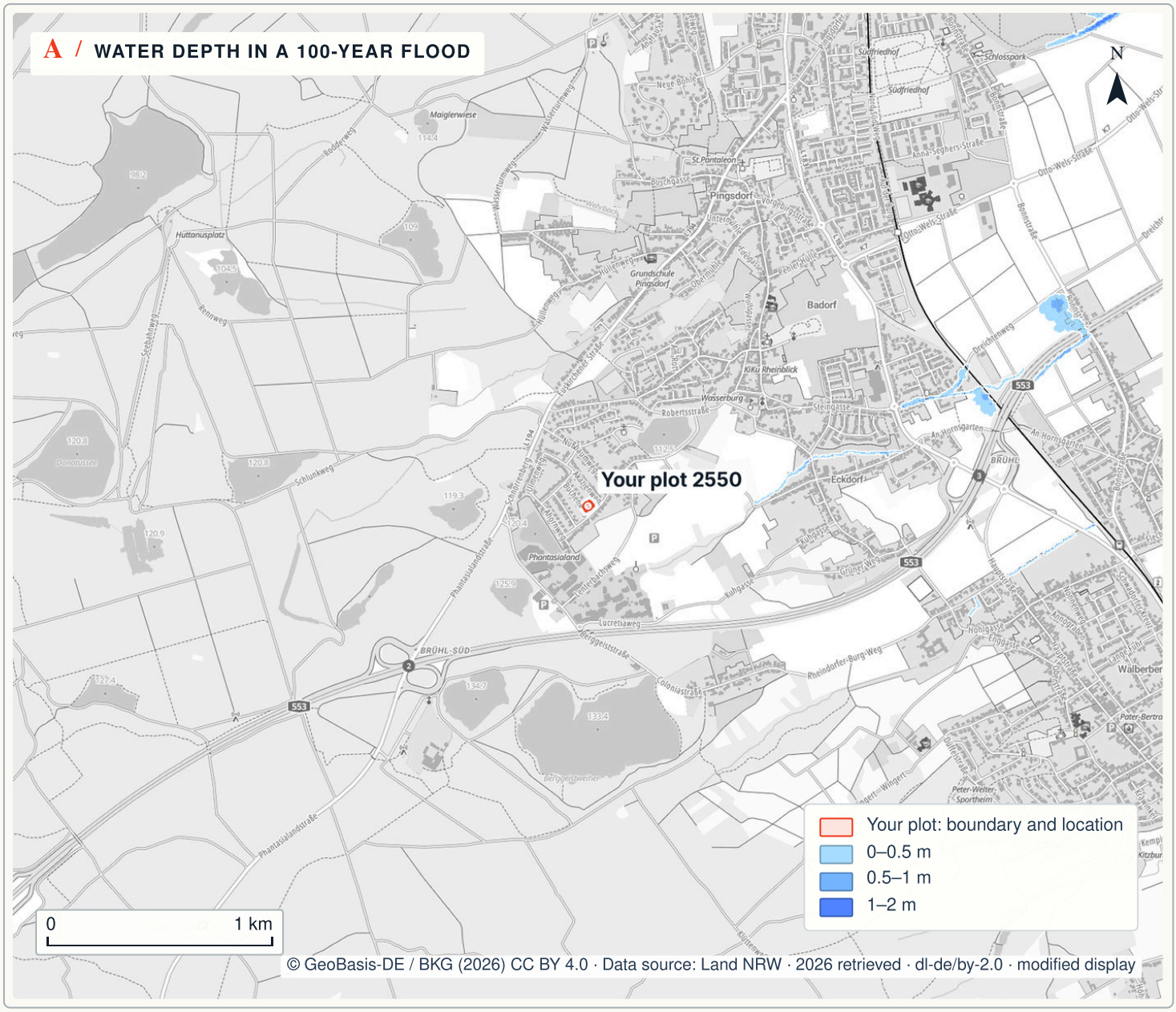
## BEFORE YOU BUY

- For the intended use, also read the individual flood-scenario maps; an absent damage class does not replace a hazard check.

**SOURCES AND LIMITS** © Federal Institute of Hydrology / German states, HWRM · retrieved 2026 · modified display · 16 Nov 2026

# Water depth in a 100-year flood

How deep the water stands in a 100-year flood according to the state map.




- Source scale: **state data**
- Read for this order: **16 Nov 2026**
- Frame width: **5 km**

## WHAT IT MEANS FOR YOUR PLOT

- The map shows no water at the plot in a 100-year flood. This covers rivers, not heavy rain.

## BEFORE YOU BUY

- Ask the insurer about natural-hazard cover at this address; inspect low entrances and sewer backflow protection on the visit.

**SOURCES AND LIMITS** Data source: Land NRW · 2026 retrieved · dl-de/by-2.0 · modified display · 16 Nov 2026

# River flood: water depth in a rare event

How deep the water stands in a rare, extreme flood (HQ-extrem) according to the state map.




- Source scale: **state data**
- Frame width: **5 km**
- Read for this order: **16 Nov 2026**

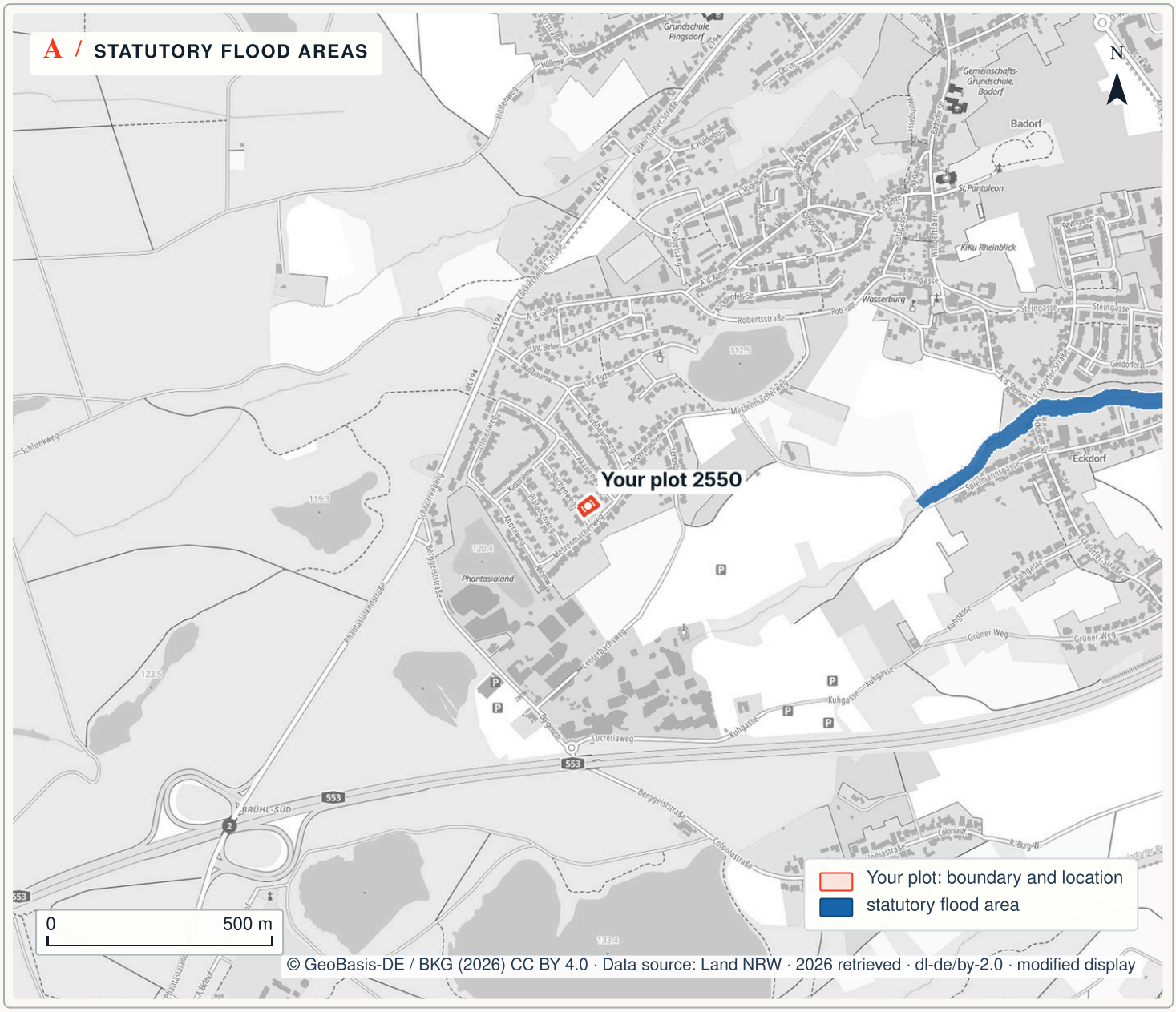
## WHAT IT MEANS FOR YOUR PLOT

- The map shows no water at the plot even in a rare flood.
- Even outside the rare river-flood outline, trace heavy-rain runoff; this map does not assess a blocked yard drain.

**SOURCES AND LIMITS** Data source: Land NRW · 2026 retrieved · dl-de/by-2.0 · modified display · 16 Nov 2026

# Statutory flood areas

Flood areas fixed in law or provisionally secured by the state.




- to the nearest mapped feature: **706 m**
- Read for this order: **16 Nov 2026**
- Frame width: **2.5 km**

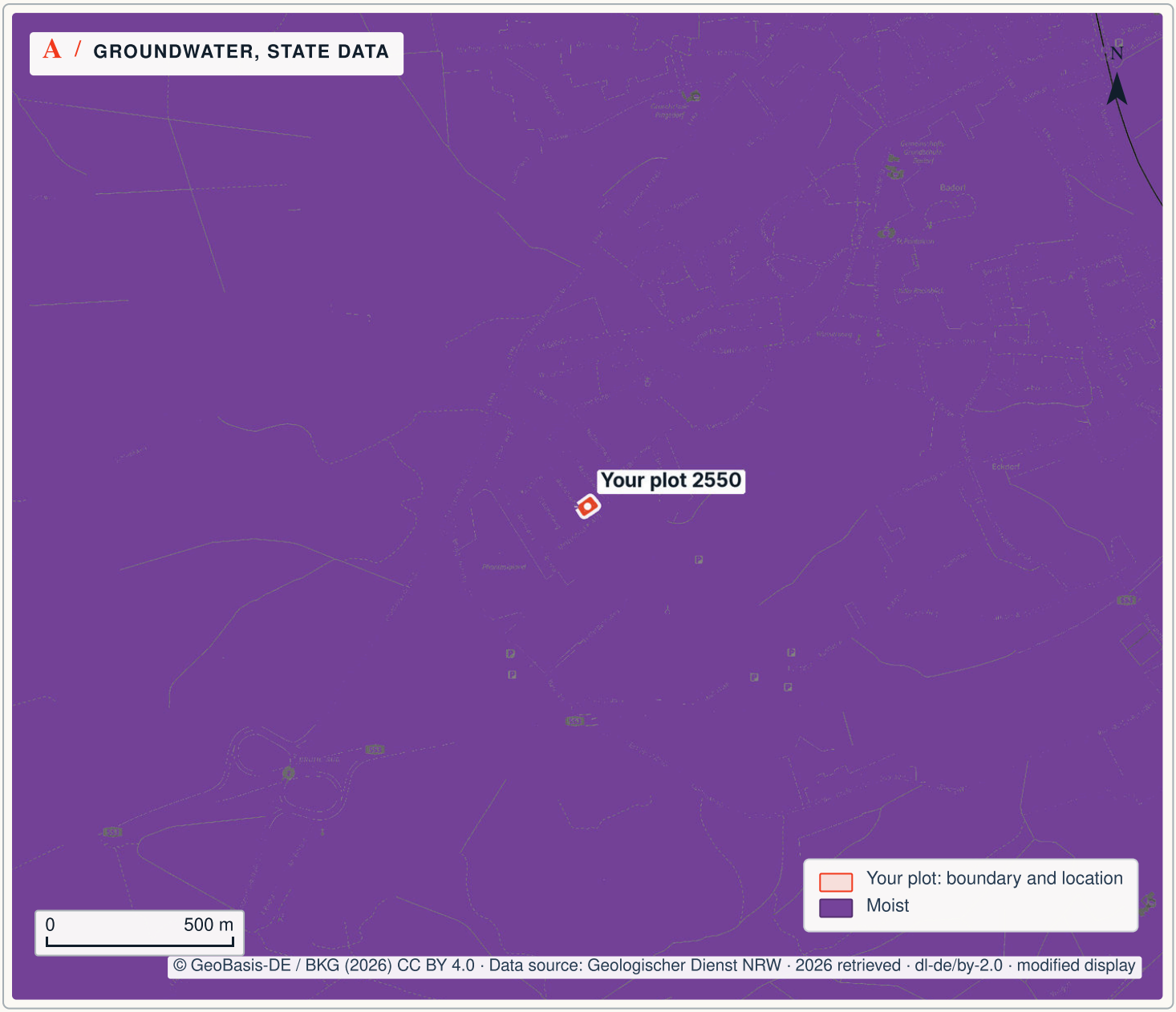
## WHAT IT MEANS FOR YOUR PLOT

- Nearest statutory flood area: 706 m from the plot.
- Before building works, have the water authority confirm the current area regulation and legally binding boundary.

**SOURCES AND LIMITS** Data source: Land NRW · 2026 retrieved · dl-de/by-2.0 · modified display · 16 Nov 2026 · scale: state data; frame: 2.5 km; read: 16 Nov 2026

# Groundwater, state data

Soil-water class from the soil map, not a measured groundwater depth.




- Source scale: **state data**
- Read for this order: **16 Nov 2026**
- Frame width: **3 km**

## WHAT IT MEANS FOR YOUR PLOT

- Point query, not inferred from the map colour: Soil water at the plot: Moist (feucht). The map is an overview only; its colour at the plot does not confirm this point reading.
- The class supplies neither a depth nor a design groundwater level.

## BEFORE YOU BUY

- Before building a cellar, obtain a site-specific design groundwater level and seasonal range.

**SOURCES AND LIMITS** Data source: Geologischer Dienst NRW · 2026 retrieved · dl-de/by-2.0 · modified display · 16 Nov 2026

# Heavy rain: flooding, state data

Where water gathers in heavy rain, regardless of rivers.




- Source scale: **state data**
- Read for this order: **16 Nov 2026**
- Frame width: **300 m**

## WHAT IT MEANS FOR YOUR PLOT

- Exceptional event: 100-year rainfall, duration 1 hour.
- Water depth at the plot in heavy rain: 50–100 cm.

## BEFORE YOU BUY

- Check the mapped depressions and water depths on site at walls, kerbs and the entrance; the map shows no flow direction. Commission a drainage design for alterations.

**SOURCES AND LIMITS** Data source: BKG (dl-de/by-2.0), data of the German states · 2026 retrieved · dl-de/by-2.0 · modified display · 16 Nov 2026

# Heavy rain: extreme event

Where water gathers in heavy rain, regardless of rivers.




- Source scale: **state data**
- Read for this order: **16 Nov 2026**
- Frame width: **300 m**

## WHAT IT MEANS FOR YOUR PLOT

- Extreme event: 90 mm rainfall in 1 hour.
- Water depth at the plot in heavy rain: 50–100 cm.

## BEFORE YOU BUY

- Check the mapped depressions and water depths on site at walls, kerbs and the entrance; the map shows no flow direction. Commission a drainage design for alterations.

**SOURCES AND LIMITS** Data source: BKG (dl-de/by-2.0), data of the German states · 2026 retrieved · dl-de/by-2.0 · modified display · 16 Nov 2026