

PP6 Bavarian Environment Agency - WP 5 - Monitoring stations

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Monitoring Station III – Hirschbach/Isar (Hirschbachmündung)

a) General Catchment Characteristics

- Geology: Limestone Alps with different lithology, Pleistocene deposits..
- Land-use: meadows and alluvial forest

b) Hydrology

Hydrology strongly controlled by operation of the Sylvenstein reservoir, especially in case of high flood events.

c) General Description



Figure 1: Overview "Hirschbachmündung" and area of investigation (map based on Google Earth)



Figure 2: "Hirschbachmündung" and terrestrial laser scanner

At the "Hirschbachmündung" the Hirschbach torrent discharges a large amount of sediment load into the river Isar. Most of the sediments are temporally stored. The site is located between Lenggries and Anger (N 47°40'14.80" – E 11°34'28.33")

The investigations focus on the delivery of bed load material, the gravel bank development, changes of the gravel banks of the river Isar and the influence of different discharge situations on river morphology.

d) Listing of applied Measurement Methods

- Transverse profiles (existing data from the government and own mappings via tachymeter and/or differential GPS)
- Discharge/deposit measurement (data from governmental climate stations)
- Terrestrial laser scanning (Riegl)
- Aerial photos (UAV Falcon 8)
- Multitemporal analysis of aerial photos

e) Listing of measured Parameters

- Transverse profiles (changes in sediment storage and water depth)
- Digital terrain models to quantify the changes in larger areas of the river bed
- Aerial photos for multitemporal information

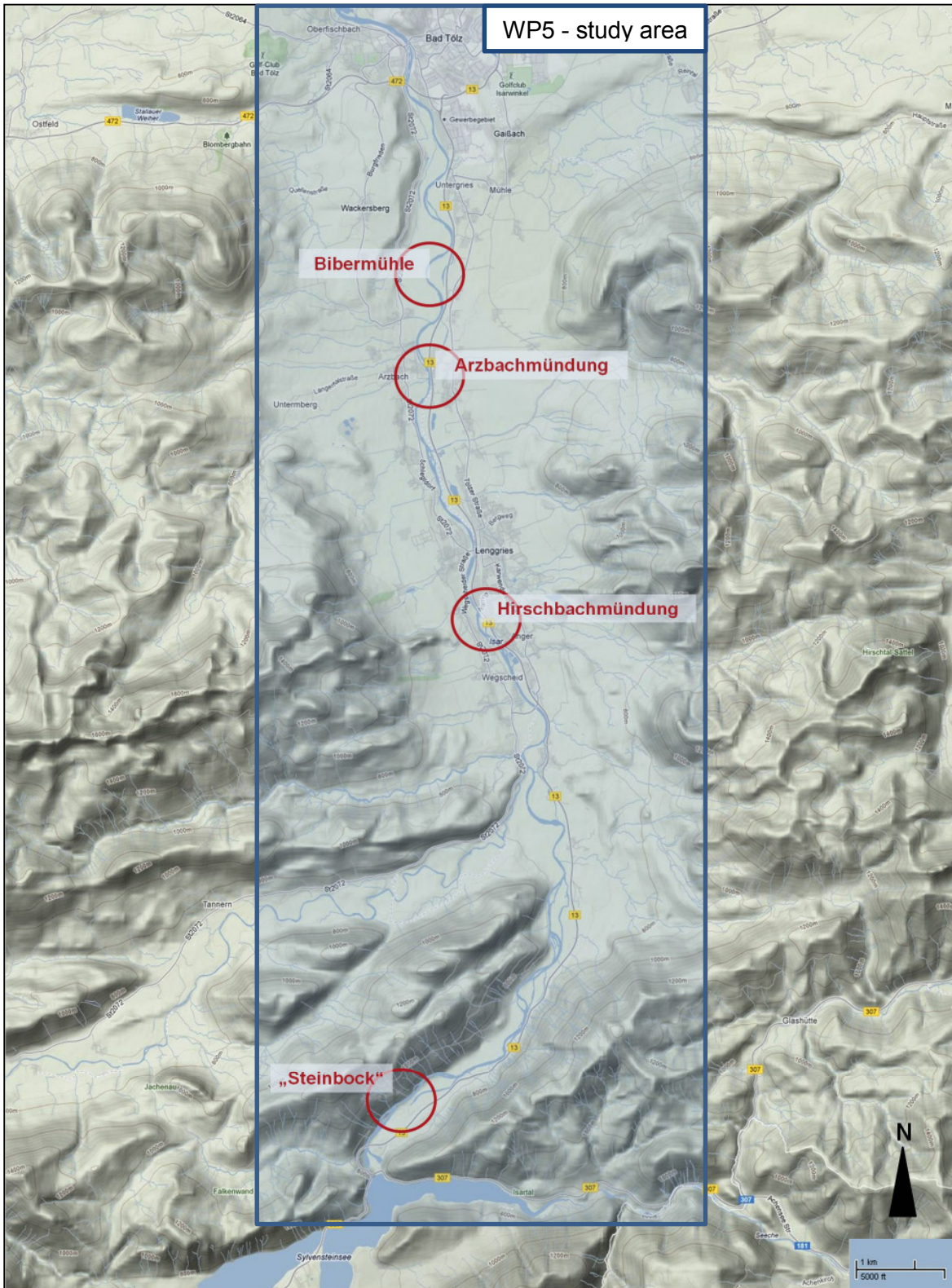


Figure 3: WP5-study area and monitoring stations along the river Isar (map based on Google Maps)