

## A COMPARISON OF DEVELOPMENT ALONG THE SVITAVA RIVER IN BRNO IN TERMS OF RECREATION AND LAND USE

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### **Abstract**

The industrial areas of Brno through which the Svitava River flows are gradually being revitalized. Emphasis is also placed on integrating the river into the surrounding area and utilizing it for recreational purposes. The aim of this article is to compare the current state with the situation in 2018. The area under consideration will primarily include locations within the city limits that directly border the Svitava River. The article will focus on locations where changes have taken place in recent years and will evaluate them in terms of their use for recreation.

**Key words:** Bike path, land use changes, urban landscape

### **Introduction**

Brno lies at the confluence of the Svatka and Svitava rivers, both of which flow through urban areas. The Svatka passes mainly through residential zones and has recently attracted attention for flood control and recreation, while the Svitava, once dominated by industry, has historically constrained city growth.

During the Industrial Revolution, workers straightened the Svitava riverbed, creating a visually unattractive channel with steep banks (Kuča, 2000). Although Brno is revitalising the surrounding industrial areas, the Svitava remains less attractive for recreation than the Svatka. This article compares changes near the Svitava River that affect its recreational potential.

The surroundings of Brno's rivers are undergoing major changes. This research examines whether riverbeds are considered valuable components of the urban landscape or viewed primarily as threats and obstacles to the city's development. It also evaluates whether the city fully utilises the potential that rivers offer or focuses mainly on flood protection.

### **Material and methods**

The Svitava River springs near the town of Svitavy at an altitude of 475 m above sea level. Its flow is 98 km long, and the basin is 1146.9 km<sup>2</sup>. In Brno, it enters the Svatka River in the city's southern part. Several important streams and larger cities—Svitavy, Letovice, Doubravice nad Svitavou, Rájec-Jestřebí, Blansko, and Brno—lie along its course. In Brno, the Svitava is 14 km long (CUZK, 2026). Its average flow rate at Bílovice nad Svitavou is 3.8 m<sup>3</sup>/s (Povodí Moravy, 2026). The river passes through seven city districts: Obřany, Maloměřice, Brno-North, Židenice, Černovice, Brno-South, and Tuřany. There are several larger weirs on the Svitava, and four millraces or distributaries in the Brno area. A bike and walking path runs along most of the flow within Brno.

Svitava was a water source for the industrial part of the city, but over time, it became an obstacle to their development. The waterlogged floodplain was a limitation, especially for the railway development, which would have to cross numerous distributaries (Kuča, 2000). The first regulation was carried out during the revolutionary years of the mid-19<sup>th</sup> century, in 1848. The second wave of regulation took place after the Second World War and had a much less devastating impact on the river floodplain (Dřímál, Peša, 1969).

When discussing the Svitava River, one cannot overlook the Svitava Millrace (also known as the Svitava Ditch or Stará Ponávka). It branches off from the river in the Tkalcovská area and, passing through the industrial part of Brno and a number of brownfield sites, joins the Svatka River. Historically, this site has seen very interesting development, but today it is a neglected stream along most of its length, partially channelled.

The data collected in previous years during the preparation of articles and the thesis will be used for comparison. Data collection was conducted through fieldwork and the use of map materials, primarily aerial photographs and flood control plans. The article examines areas where significant land-use changes have occurred.

## Results

The biggest and most positive changes are undoubtedly taking place on the site of the former factory. The Nová Zbrojovka area is undergoing a major change in land use. Compared to our previous visit in 2018, the right riverbank is essentially in the same state. Between the river and the residential area, there is a space used primarily by local residents for recreation. A major change, however, is the unmarked educational path running through the area. It was established in 2021 and introduces visitors to the region's industrial history. The brownfield site of the former factory on the left bank was recently completely demolished, and a new district is being built in its place. While in 2018 the area was inaccessible and neglected, now, in addition to new residential buildings, a park and a public sports facility have been created, and there is a café and, during the summer, an openair movie theatre. The entire area, which was originally cut off from the river, now connects to the riverbed and incorporates the river as a valuable element of the urban landscape. The formerly impassable brownfield, which divided the area between the railway line and the Svitava River, is now becoming a space suitable for leisure activities.

As mentioned earlier, a bike path runs along the Svitava River. It is used not only by local residents but also for recreational purposes. The problem with this bike path is its intersections with roads, particularly Hladíkova and Křenová Streets. The intersection with the busy four-lane Hladíkova Street was resolved in 2022 with an underpass. Cyclists and pedestrians can now safely cross to the other side. The intersection with Křenová Street, a few dozen meters further on, has not yet been resolved, and although it is not as risky as the previous problem, it is still a street with relatively heavy traffic and public transportation. Building an underpass is also a potential solution. A traffic solution using traffic lights does not seem ideal given the nearby intersection.

A number of flood control measures are currently being implemented or planned along the rivers in the Brno area, including the Svitava River. Most of the proposed measures aim to optimise the flow profile of the Svitava riverbed, which, in the south, is trapezoidal in shape, with steep slopes and riverbed diking. The modifications call for removing the dikes, widening the flow profile, and constructing new berms. The goal of the comprehensive flood control measures in the city of Brno is not only to protect people and property, but also to better integrate the river into the urban area and make it accessible to the public (Voda v Brně, 2026).

## Discussion

Transforming rivers in cities from water sources for factories back into valuable elements of the urban landscape is a goal pursued by many cities, not only in Czech Republic. This is often a difficult task, as many of these rivers are surrounded by brownfields and factories. Many waterways have also been channelised, particularly during the Industrial Revolution and later in the second half of the 20th century. Their integration into the built-up area and the enhancement of their recreational use are thus often part of a comprehensive plan that must be coordinated not only with flood control plans but also with the zoning plan. A good example is the Svratka River in Brno, where improvements have recently been completed. These improvements make the river more accessible to the surrounding area, enhance its flood safety, and, above all, transform the area into a space naturally used for recreation. Similarly, the Úhlava and Radbuza rivers in Plzeň have also been integrated into the city. There are many such positive examples throughout the country, whether the rivers are large or small. The areas surrounding waterways in cities are once again becoming places where local residents enjoy spending their free time (Lacina, Schneider, 2016).

## Conclusion

Although the final kilometres of the Svitava River will never again look as they did before regulation, and human intervention will always be visible here, the situation is nonetheless improving. The finalised city zoning plan, development on brownfield sites, and growing resident interest undoubtedly play a role in this. The good news is that both experts and the general public view the river as a valuable element of the urban landscape. We will always see remnants of the past along the Svitava; this river, which was one of the pillars of Brno's industrial glory, is now heading toward a brighter future.

## References

- ČÚZK (State Administration of Land Surveying and Cadastre), 2026. [online] [cit. 5.4.2026]. Available at: <https://geoportal.cuzk.cz/>.
- Dřimal, J., Peša, V., (1969). Dějiny města Brna 1. 1. vyd. Brno: Blok.
- Kuča, K., 2000. Brno: Vývoj města, předměstí a připojených vesnic. 1. vyd. Praha: Baset.

Lacina, D., Schneider, J., (2016). Plzeňský region - Rivers in the cities. In book: Rivers in the cities, Mendel University in Brno.

Povodí Moravy, (2026). [online] [cit. 5.4.2026]. Available at: <https://sap.pmo.cz/portal/Sap/cz/pc/pc>

Voda v Brně, (2026). [online] [cit. 5.4.2026]. Available at: <https://voda.brno.cz/>

### **Souhrn**

Článek se zabývá probíhajícími změnami podél řeky Svitavy v Brně. Tyto změny souvisejí s novou výstavbou a protipovodňovými opatřeními. Současný stav oblastí, které v posledních letech prošly změnami, je porovnán se stavem zaznamenaným od roku 2018.

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