was constructed around the bridge, therefore not removing the steel, was the very low prices of scrap iron at the time. The covering of the bridge began November 18th 1925 and the new railway with the wider track was ready on April 15th 1929. The railway operated with deficit almost every year until its closure in 1968. Before then, it was famed for its excursion trains and the restaurant on Vrads Station. A place that's still worth a visit. A trip on the Heritage Railway (Veteranbanen) between Bryrup and Vrads is also recommendable.

#### The Water Action Plan

In 1992 the County of Vejle issued a bypass canal from Bredvad Sø to Dead Stream in order to allow a small amount of the water flow to run through the old creek's course again. Grounded in the European Union's Water Framework Directive, creating passage through all constructed barriers became a requirement, including the small flowthrough under the 1929 dam.

The Municipal Water Action Plan specifies that remains of cultural-historic value must be taken into account. The chosen solution of laying open the steel grid bridge considers both nature, history and tourism.

#### The course of the battle in 2014

Once the decision was made, "the bridge will be uncovered", everything went fast. The first steel grid saw daylight on April 7th 2014 and from the beginning there was media presence and spectators. Various tours were organized and the excavation team was followed by television. Thanks to the many visitors a provisional parking lot and viewing platform was arranged.

The dam in the winter, January 2013.





The excavation had a lot of public interest.

The bridge was laid open in two stages. First the horizontal upper part was uncovered, sandblasted with 3000 bar, grinded, primed and then painted (with brushes in all nooks and crannies). During the sandblasting the entire bridge element was wrapped to prevent the old lead heavy paint in falling into the creek underneath. In mid-August the next phase was initiated. The supporting bridge towers were uncovered and the restauration procedure repeated. Later the bridge was provided with handrails and a pedestrian bridge in robust Azobe wood.

Finally the creek was stabilized with large rocks and neat spawning sites for trout. The inauguration was held on December 13th 2014 and once again the bridge was a big attraction.

July 2014. The upper deck of the bridge just had a second coat of paint.





## How do I get to The Uncovered Bridge?

The parking lot is situated on Vestbirkvej 2A, Brædstrup. (If you are using GPS, it's important to type in Brædstrup, if not you will end up in Østbirk) Coordinates: 55.973199 and 9.689758.

From the parking lot it's a short 300 meter walk to the bridge. For horseback riders a ford has been made. An alternative parking area is found on Søvejen 46. From here the trail leads west and passes a small bridge separating Vestbirk Lake (Vestbirk Sø) and Naldal Lake (Naldal Sø). From this point the trip to the bridge is 1.8 km.

If you're up for it, it's also possible to hike or go on bike past the old textile factory and the Vestbirk Hydroelectric Plant. The trip is about 3.7 km. Do you wish to spend more days in the beautiful nature, overnight stays are available at Vestbirk Camping.

The forests in the area are privately owned. There is only access to roads and paths in the forests from 6 am to sunset.

- Vrads Station: Tel. +45 75 75 62 20
- The Heritage Railway Vrads-Bryrup: Tel. +45 75 75 60 35
- Vestbirk Camping: Tel. +45 75 78 12 92

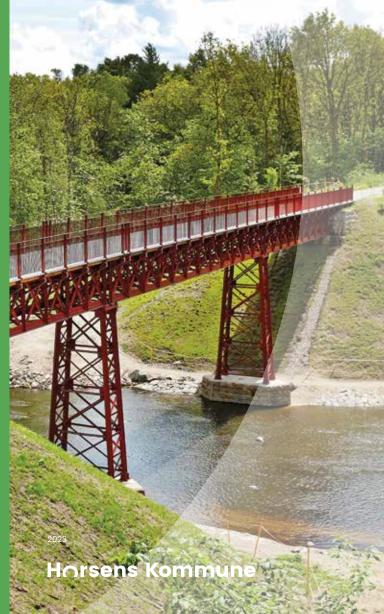
For more information about Horsens see www.kystlandet.com or scan the QR code.



Miljø- og Fødevareministeriet Naturstyrelsen

**H**∩rsens Kommune

# The Uncovered Bridge





## The Uncovered Bridge

The Municipality of Horsens has acquired a special tourist attraction of great cultural and historic value. The 13.4 meter tall steel grid bridge from 1899 was built across the Gudenå stream as part of the private railway from Horsens to Bryrup. It was hidden in 1925 within a dam structure but rediscovered during preparations of a plan of action favoring the aquatic environment in 2014.

When the privately owned narrow-gauge railway bridge was constructed in 1899, it led across the broad and roaring Gudenå. At its time it was the tallest steel grid bridge in Scandinavia. The project was done by the construction firm Hoffman, Hansen & Co. The bridge cost a neat total of 691.800 DKK and was inaugurated on Saturday 22nd of April, 1899. The trip between Horsens and Bryrup was an attraction. For 1.65 Dkr (0.25 USD) you could travel 3. class on 'Denmark's most beautiful railway'. A trip took two hours and 15 minutes.

### **Vestbirk Hydroelectric Plant**

In 1850 at Vestbirk the power of water was harnessed through mill wheels and later redirected as pulling power for the spinning, weaving and sowing machines of the recently newly Yarn and Hosiery Factory – a business which at its peak employed more than 100 workers. A large fire demolished the property in 1920, but this led to innovation. The industrialization demanded more and more electricity, not just for the local factory but the surrounding community as well. In the light of World War I it became obvious that an industrial production based entirely on deliveries of coal and diesel was no longer

At the Uncovered Bridge you can enjoy both your lunch and the bridge as well as the Gudenå from the tables and benches.





Vestbirk Hydroelectric Plant.

profitable, which consequently lead to the consideration of establishing a hydroelectric plant in Vestbirk.

In 1924 the Vestbirk Hydroelectric Plant was finished. Leading up its completion a hundred workers had moved more than 120.000 cubic tons of dirt by tip wagons, built a plant upon the foundation of two locks and a dam that changed the original course of the Gudenå. Achieving a fall of 10 meter, 12 cubic meters/second of creek water rushed down onto the shovels of two new Francis turbines, hereby setting in motion the rotating axle and producing 10.000 volts of alternating current.

#### The Lakes

The Gudenå course was now hindered by a dam and as a result the Bredvad Lake (Bredvad Sø) was created upstream. Downstream the resulting trickling watercourse was colloquially named Dead Stream. The two lakes, Vestbirk Lake (Vestbirk Sø) and Naldal Lake (Naldal Sø), came into being as an eastern-western running canal was dug, leading the waters of the Gudenå through the lake district and down into another excavated canal heading towards the turbines. The once 4 meter deep Bredvad Lake (Bredvad Sø) is now shallow due to sand sedimentation.

## Bridge becomes a dam

Almost simultaneously as the initial construction of Vestbirk Hydroelectric Plant, the bridge proved obsolete because of its track width which, on account of an expansion of the railway to Silkeborg, needed to be broadened 0.4 meter. It is here the idea to build the dam according to the new track width originated. Two large concrete pipes were laid through the dam so the water could pass through Dead Stream in case it wasn't needed at the power plant. The reason why the dam

