

## General description of the bathing water in non-technical language

Langer See near Dolgenbrodt is a lake situated around 12km south east of Königs Wusterhausen, in the Dahme Lake District, an area with numerous lakes. It also belongs to the "Dahme Heathland Lakes" Nature Park and it is part of the Storkow Lake Chain, which consists of Storkower See, Wolziger See and Langer See. The lakes are connected with Scharmüntzelsee and with each other by the Storkow Canal. The outflow leads into the River Dahme.

Apart from the Storkow Canal, Langer See does not have any other outflows. At its southern tip it drains straight into the Dahme. The entire catchment area of Langer See is 398km<sup>2</sup>, which is very large for a lake of this size. 57% it is forest and 27% is arable land.

The almost triangular, 147ha large basin of Langer See is flat with a maximum depth of just 3.8m and is mainly well mixed.

Langer See has an extensive reed population, in particular on the eastern shore. The neighbouring marshy areas are alder swamps or wet meadows. In the southern area there is the famous Prieros stud farm, where race horses were bred during East German times. Prieros is situated at the southern tip of the lake. The entire western shore is occupied by bungalow estates.

Due to its shallow depth and its comparatively large catchment area, Langer See near Dolgenbrodt naturally has a tendentially nutrient-rich state. However, in the past it had an excess of nutrients beyond this natural amount. Intensive plankton growth with blue-green algae blooms and the complete disappearance of the underwater vegetation were the consequences. Although the waste water treatment facilities have now been renovated, Langer See has still not recovered. The summer average water transparency levels are still considerably below one metre. Blue-green algae dominate the plankton during the entire season and frequently form algae blooms.

As a Federal Waterway, the Storkow Lake Chain connects the River Dahme with the Schamützel Lake District and also has a connection to the Teupitz Lake District. The entire area is therefore heavily frequented by boats from Berlin. The locality of Prieros forms a hub for these waterways. In the Prieros museum, a timber-framed house which is over 250 years old, it is possible to learn about the life and work of people from the region since the last ice age.

The "Dolgenbrodt" bathing area at Langer, which is tested every four weeks by the local Office for Health as per the Brandenburg Bathing Water Regulations, there were no exceedances of single values of the microbiological parameters e.coli and intestinal enterococci. Sometimes blue-green algae can be observed. People who are sensitive to the algae should refrain from bathing.

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### Sources

Arp, W. & B. Koppelmeyer (2009): Monitoring von Phytoplankton und chemischen Parametern zur Indikation des ökologischen Zustandes in ausgewählten Seen Südbrandenburgs im Jahr 2008. – research carried out on behalf of the Ministry for Rural Development, Environment and Consumer Protection  
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