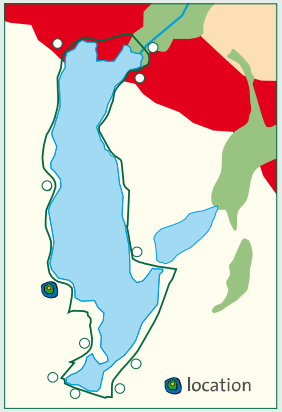
Ice Age Trail
tiefwarensee

How do you save a lake?

WAREN (MÜRITZ)
HEILBAD



Ground moraines
Terminal moraines
Sandurs
Melt water runoff course

Growing population numbers and the industrial development of Waren (Müritz) led after the middle of the 19th century to a gradual deterioration in the water quality of the lake. In the 1980s, the nutrient loading principally resulting from the intensive agricultural exploitation of the drainage area and the discharge of municipal wastewater reached its tragic highpoint: extreme algal blooms consumed the oxygen dissolved in the water; dying fish were the consequence. Hydrogen sulphide collected in the deep water; in summer the depth of visibility sank to 1 m.

The first measures at the time to save the lake were concentrated on reducing nutrient inputs. First of all wastewater treatment plants were built or modernised. Owing to the pollution already present however, this did not succeed in achieving a noticeable improvement in water quality.

In 2001 therefore, as well as continuing to rehabilitate the drainage area, a project was launched to restore the substance of the lake by the installation of a deep-water ventilation system. By 2005 the deep water was being oxygenated in the summer months. Simultaneously, the concentrated nutrients in it were chemically precipitated and thus permanently bound in the sediment. The technological measures were supported by an optimisation of fishery management, in particular reduction of the high whitefish stocks (principally the silver carp).

Saving the lake cost around 900,000 euros, for which the town of Waren (Müritz) received 70 % funding through the European Agricultural Guidance and Guarantee Fund. An outlay that has paid dividends: the nutrient loading of the lake and its tributaries today is much reduced. Thus the phosphorus content of the lake has fallen by about 90 % (!); the improved oxygen conditions are shown in the greater depth proliferation of the aquatic plants. And visitors to the lake once more have a deep view: depth of visibility today is around 5 m.

Aerial photo of Tiefwarensee photo: K. Steindorf-Sabath

Deep-water ventilation system

geopark mecklenburgische eiszeitlandschaft
MÜRITZEUM Das NaturErlebnisZentrum in Waren (Müritz)
Stadtgeschichtliches Museum Waren

Here you can find more informations.