The Upper Mines Water Management System

Four artificial lakes belong to the Upper Mines Water Management System: Upper Großhartmannsdorf Lake, Obersaida Lake, Dittmannsdorf Lake and Dörnthal Lake. They are all drinking water dams. Construction of Haustettenbach Dam in 1908 resulted in damming the Flöha water divider – the original starting point of the Freiberg Mines Water Management System. Since then, the drinking water dam has been the main reservoir of the system. From there, the water for the Chemnitz water supply is piped via Dörnthal Lake to Saldenbach Dam.

In addition, water can be piped from Upper Großhartmannsdorf Lake to Lichtenberg Dam via a pressure pipeline built in 2001. From there, the regions of Freiberg and the greater Dresden area can be supplied with drinking water.

The Lower Mines Water Management System

Six artificial lakes – Berlitschütz Mining Lake, Konstantin Lake, Rothbächer Lake, Erzengler Lake and Middle and Lower Großhartmannsdorf Lakes – belong to the Lower Mines Water Management System. They supply Freiberg’s industry with process water and serve as fish protection. Some of the lakes are also used for fish farming or as fishing waters, others are developed for tourism. The Erzengler and Middle Großhartmannsdorf lakes are, for example, are for swimming. Other lakes, however, are located in nature reserves and are habitats for rare animal and plant species.

UNESCO World Heritage Ore Mountains/Krušnohoří

The Mines Water Management System has been a listed site since 1980, and since 2019 it has been a UNESCO World Heritage Site as part of the Ore Mountains/Krušnohoří Mining Region.

Freiberg’s mining industry produced many technical and scientific achievements that influenced mining worldwide. These include innovative technologies for water lifting. However, the formation of a state mining system also left its mark on society. Mining created a unique cultural landscape in Saxony and Bohemia, which is still visible everywhere in the Ore Mountains. Many historic buildings are still in use today – such as the dams of the Freiberg Mines Water Management System. The cross-border character of the World Heritage sites is also unique: 17 of the 22 parts are located in Saxony, Germany, five in Bohemia in the Czech Republic.

UNESCO protects and preserves unique cultural and natural assets of outstanding universal value as the heritage of all mankind. The World Heritage Convention was adopted in 1972.
The Freiberg Mines Water Management System

The Freiberg Mines Water Management System is a water supply system that has evolved over several centuries. It consists of a widely ramified network of galleries (德拉肯巴赫 and water channels, which are altogether about 70 kilometers long and connect ten lakes. Construction of the facilities began in the 16th century between Freiberg and Neuwermsdorf near the Ore Mountains. Initially, the silver ore near the surface could be extracted without considerable effort. From the 15th century, however, the miners had to dig deeper and dig to find mineral resources. In the process, they encountered groundwater. At first, watermen drained the pits by hand. Later, pumps driven by water power were used for this purpose.

The Freiberg Mines Water Management System has its origins in Freiberg silver mining. In 1168, silver was discovered in the Freiberg region. The system was finally completed in 1882.

Haselbacher Kunstgraben

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Gullet Administration

...and supply system for Freiberg’s mining and metallurgy began in 1558. As a central authority it was to harmonize the water needs of the mining industry and the city population.

Gradually, existing lakes were upgraded for mining or new ones were created. These included the Berthelsdorf Mining Lake, which had already been created before 1555, as well as the Rothbächer and Erzengler lakes on the Münchberg island. From 1562, the construction of artificial channels and gutlets took place concurrently on the advice of mine master Martin Planer. The system was finally completed in 1882.

The Electoral Gallery and Gullet Administration

However, hydropower was also used to extract and process mineral resources, which increased the demand for water immensely. Due to a lack of water, Freiberg’s mining industry was threatened with extinction in the 16th century. By order of the Elector, the planned development of a water storage and gullet system for Freiberg’s mining and metallurgy began in 1558. After the Thirty Years’ War (1618–1648), the Elector’s Gallery and Gullet Administration was founded in 1684 – the predecessor of the Freiberg Mines Water Management System. As a central authority it was to harmonize the water needs of the mining industry and the city population.

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