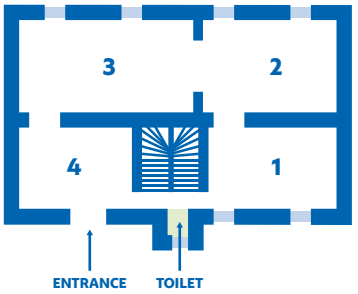
Water Supply Museum Kaiserbrunn

City of Vienna | Vienna Water

wienerwasser.at

Contents

HISTORICAL MUSEUM BUILDING



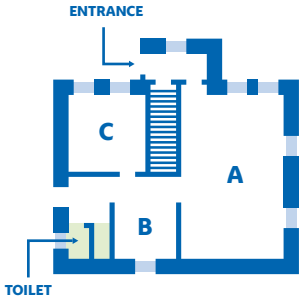
ROOM 1
History of
Water Supply

ROOM 2
The path of
Vienna's Water

ROOM 3
Karst, (Hydro) Geology &
Installations

ROOM 4
Tunnel and
Shop Display

NEW MUSEUM BUILDING



ROOM A
Multimedia Experience

ROOM B
Drinkingwater Power
Plants & Vienna's Water
Distribution Network

ROOM C
Museum Shop

OUTDOOR-EXHIBITION AREA
Various types of pipes, fittings and hydrants, hydraulic ram, Francis turbine with generator, wheel-driven well, walkable tunnel for visitors

spring chamber – Kaiserbrunn

Welcome to the Water Supply Museum Kaiserbrunn

The comprehensive supply with fresh and pure drinking water directly from the spring is a key element of Vienna's high quality of living. This is based on the unique model of drinking water supply of the City of Vienna – Vienna Water: The water gets to Vienna via 2 spring water mains solely by the power of gravity.

To celebrate the 100th anniversary of the First Vienna Spring Water Main, the house formerly used by the site manager in Kaiserbrunn was transformed into a museum, and the first visitors were welcomed in 1973. Since then, plans, images and objects make the history and development of Vienna's water supply come alive.

On the occasion of the 125th anniversary of the First Vienna Spring Water Main, Vienna Water had a new exhibition building constructed and inaugurated in 1998. The heart of this building is a room equipped with multimedia technology. Lectures accompanied by film projections and the option to taste water from the Kaiserbrunn spring make a visit to the museum an exciting and varied experience.

All guided tours of the First Water Supply Museum Kaiserbrunn of the City of Vienna start in the new building. After passing through the outdoor-exhibition area, the next stop is at the older section of the exhibition. The walk through the two museum buildings is followed by the highpoint of the visit: an inside look at the Kaiserbrunn spring.

1st Vienna Spring water main

Construction History

31 JULY 1861
Memorandum of the Vienna Planning and Construction Bureau on the studies for an efficient water supply system for Vienna.

21 NOVEMBER 1862
The Water Supply Commission is appointed from among the City Council members.

12 JULY 1864
Based on proposals by the geologist Professor Eduard Suess, the City Council decides to have a long-distance main from the Rax Schneeberg region built to tap the mountain springs.

1 MAY 1865
On the occasion of the inauguration of the Vienna Ringstrasse, the Kaiserbrunn spring is donated by Emperor Francis Joseph I to the City of Vienna.

12 OCTOBER 1869
The construction works are commisioned out to London-based entrepreneur Antonio Gabrielli.

6 DECEMBER 1869
The first explosion is detonated in the Höllental valley.

21 APRIL 1870
Emperor Francis Joseph I digs the first spade at the site of the future Rosenhügel reservoir. Construction work for the distribution pipe network is initiated.

1 SEPTEMBER 1873
The Rosenhügel reservoir is filled for the first time.

24 OCTOBER 1873
The First Spring Water Main is solemnly inaugurated by Emperor Francis Joseph I by turning on the high-jet fountain in Vienna's Schwarzenbergplatz square.

1878
Construction of the Pottschach groundwater pumping station.

1899
Purchase of the Seven Springs in the Karlgraben valley (Neuberg an der Mürz).

1887–1900
Tapping and connection of the springs above Kaiserbrunn to Hinternasswald.

1909
Construction of the Matzendorf groundwater pumping station.

1953–1958
Construction of the Neusiedl am Steinfeld supply reservoir (capacity: approx. 600,000 m³).

9 DECEMBER 1965
A protection zone is decreed for the First Vienna Spring water main (Rax, Schneeberg and Schneealpe region).

1968
Donation of the Wöllersdorf groundwater pumping station by the Republic of Austria on the occasion of the 50th anniversary of the Republic.

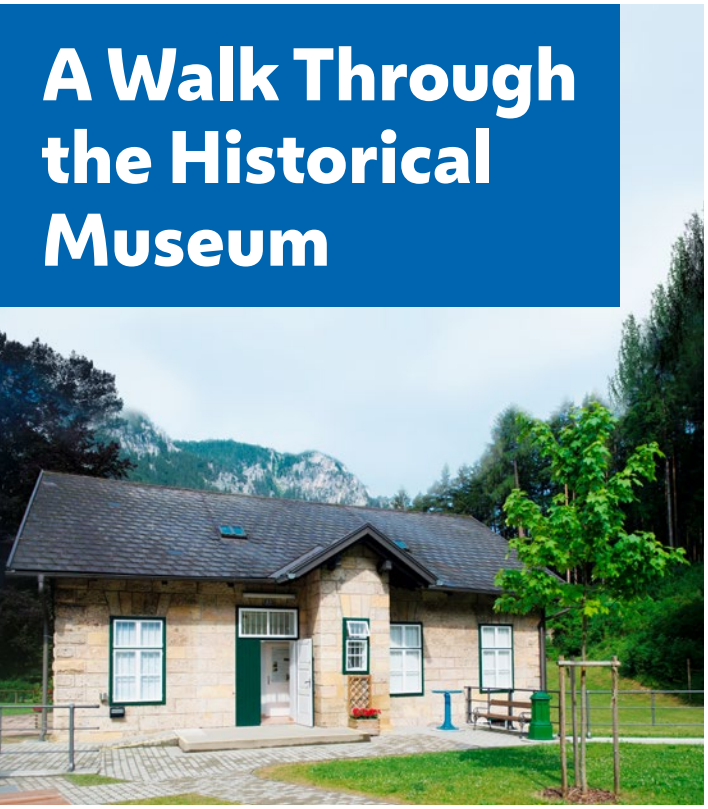
1965–1970
Construction of the Schneealpe gallery between Neuberg and Nasswald (length: 9,680 m) to tap the Seven Springs.

3 SEPTEMBER 1974
The Seven Springs and the water from the Schneealpe region are connected to the system.

1985–1988
Tapping of the Pfannbauern spring at Gusswerk (Styria), construction of three tunnels and a 21-km connection pipeline to the system of the First Vienna Spring water main.

10. MÄRZ 1989
Connection of the Pfannbauern spring to the system.

A Walk Through the Historical Museum



Historical museum building with outdoor-exhibition area

Kaiserbrunn water couriers

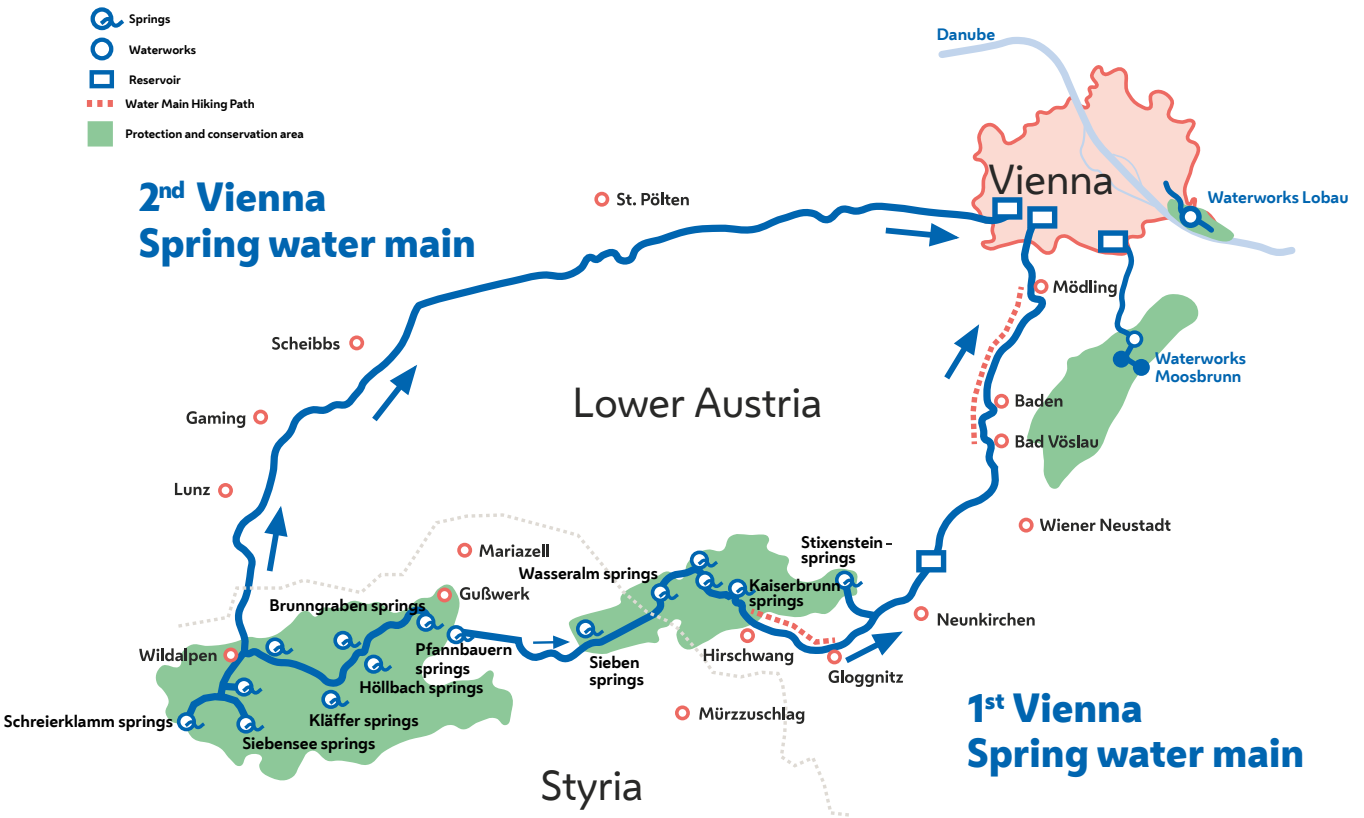
House of the first „water supervisor“, outdoor-exhibition area and walkable tunnel

The 19th-century museum building is an attraction in itself. It was both the workplace and the home of the first water supervisor.

Among other exhibits, the outdoor-exhibition area around the museum features original size hydrants and water pipes. Visitors can taste fresh water at the spring-wheel.

Room 1: History of Water Supply

The tour begins with an overview of the water supply systems of the ancient Greeks and Romans. The origins of Vienna's water supply go back to the construction of the Roman military camp Vindobona. A miniature shows how "Kaiserbrunn water couriers" in the era of Emperor Charles VI brought water to Vienna in barrels – long before the First Vienna Spring Water Main was built.



Room 2: The Journey of Vienna's Water

A longitudinal profile of the First Vienna Spring Water Main shows the descent of the water from the Limestone Alps to Vienna: Starting with the Pfannbauern Spring and going from left to right, the First Vienna Spring Water Main passes by the Seven Springs (altitude: 792 m), the Schneealpe and another conduit from Nasswald via Kaiserbrunn (spring altitude: 522 m) to the water reservior on Vienna's Rosenhügel (altitude: 246 m).

The First Vienna Spring Water Main is a gravity conduit. Meaning: The water flows by natural gravity – without the need for pumping stations – to Vienna. The main conduit is mostly made out of bricks. On its journey from the Pfannbauern spring to Vienna, the water passes 30 aqueducts and covers a distance of around 150 kilometres. The difference in altitude from Kaiserbrunn to Wien is 276 metres. The water arrives in Vienna after a journey of 24 hours.

At the moment of its completion, the First Vienna Spring Water Main yielded 50,000 cubic metres of water per day. A series of enlargement measures increased its capacity to a current maximum of approx. 220,000 cubic metres. A fold-out wall panel shows the historic project plans for the construction of the First Vienna Spring Water Main.

Room 3: Geology & Installations

IMPRESSIVE KARST MOUNTAIN MODEL
The geological basis of water supply is visualised by a true-to-life model of a karst mountain range and rock samples are shown.

MEASURING EQUIPMENT OVER TIME
Exhibits from an "inspection glass" to state-of-the-art measuring equipment give an overview of the development of quality monitoring and control.

WALKABLE CONDUIT
A relief of "Vienna's mountains", i.e. Rax, Schneeberg and Schneealpe, at the scale of 1:25,000 shows the course of the First Vienna Spring Water Main. Installations such as springs, aqueducts and reservoirs and even a small walkable conduit are exhibited.

Room 4: Tunnel & Shop Display

An original-size model of the Schneealpe tunnel recalls the construction history of the Seven Springs water conduit project from 1965 to 1970. The replica of a statue of St. Barbara from the eponymous chapel in Karlgraben (Neuberg/Mürz) dates from the same period.

The museum shop sells books, DVDs and souvenir glasses.

Films and Power Plants in the New Building

Room A: Multimedia Experience

This room equipped with multimedia technology offers many possibilities for enlivening lectures on different issues of water supply by moving images. A variety of films can be presented in the context of guided tours, with topics ranging from the history of the First Vienna Spring Water Main and spring protection to a general overview of water supply for the City of Vienna.

Hinternasswald power station

Room B: Drinkingwater Power Plants & Vienna's Pipe Network

Photos and sketches show the drinking water power plants constructed along the course of the First Vienna Spring Water Main. In the adjoining outdoor-exhibition area, spiral turbines (Francis turbines) with generators provide an insight into these plants' method of clean electricity production.

Moreover, visitors can have a look at a plastic model of Vienna's water pipe network with its length of over 3,000 km. The individual pressure zones – due to the topography of the city with its terraced terrain – are clearly marked.

Room C: Museum Shop

This room offers the possibility of purchasing books, glasses and carafes, soulbottles (plastic-free drinking bottles) and many other nice souvenirs.

The new museum building

Using water sensibly

DRINKING WATER & GREEN ELECTRICITY

Vienna Water implements various ecological measures in Kaiserbrunn, the place of origin of Vienna's mountain spring water. Moreover, Vienna Water supplies the population not only with mountain spring water but also with green electricity. Energy generation for the water supply system is also powered by spring water.

ENVIRONMENTALLY-FRIENDLY HEATING

Drinkingwater power plants are mostly used for this purpose: The modern low-temperature underfloor heating systems of the two museum buildings are fed by a heat pump, whose energy is generated from the cooling of spring water from about 6°C to 4°C. As a result, the energy demand of the buildings is reduced from 30 kW to 10 kW.

CLEAN WASTEWATER

A modern biological treatment plant and additional filters purify the Kaiserbrunn wastewater. Clear and pure, this water is then reintroduced into the groundwater flow running beneath the Schwarza river.

Kaiserbrunn source chamber

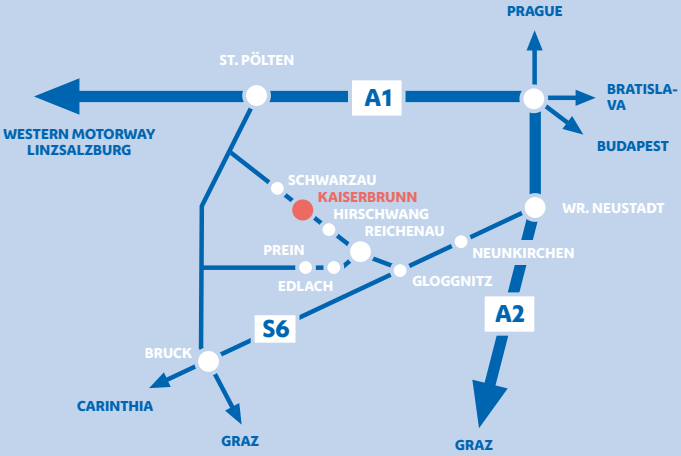
Safety first

A CLOSE-MESHED SAFETY NETWORK

All installations operated by Vienna Water, be it in the spring zones, along the spring water mains or in Vienna, form part of a close-meshed safety network. This permits monitoring every access to these installations.

ONLINE QUALITY MONITORING AND CONTROL

Along the First Vienna Spring Water Main, from spring zones all the way to Vienna, numerous measuring stations monitor the quality of the drinking water around the clock. The data material is transmitted online to the nearest control centre, which permits instant registration of even the tiniest change. The staff members of Vienna Water can thus react promptly and take suitable steps. These precautionary measures will continue to safeguard the high quality of Vienna's water supply in the future.



WATER MAIN MUSEUM KAISERBRUNN
Kaiserbrunn 5
2651 Reichenau an der Rax

OPENING HOURS:
The museum is open from 1 May to early November on Saturdays, Sundays and public holidays from10 a.m. to 4.30 p.m.

ADMISSION/GUIDED TOURS:
Admission is free.
Against prior appointment, guided tours for groups of at least 10 persons are available at a cost of € 50.– per group.
Guided tours for family groups cost € 25.– against presentation of the NÖFamilienpass or NÖFamiliencard (Lower Austrian family pass or family card).
Guided tours for public educational establishments (schools, etc.) are free.

Legal notice:
Media owner and publisher:
City of Vienna – Vienna Water, 1060 Vienna. Responsible for the contents: DI Dr. Wolfgang Zerobin; Concept: Mag.a Theresa Dienstl. Graphic design & layout: stoff Werbeagentur GmbH, 1170 Vienna. Photos: Vienna Water, Lois Lammerhuber, Christian Houdek, Johannes Zinner. Translation: Sigrid Szabó. Print: Druckerei der Stadt Wien, 11th edition: 5,000, 06/2020.