

Sustainable drinking water supply – trends and facts

Many districts in alpine regions supplement their drinking water supply with spring water, partly because alternative sources such as groundwater often have to be pumped from relatively distant sources. One result of this development is that local authorities are seeking methods of utilizing their spring water sources in a sustainable manner. And consequently in 2010 WABAG completed three WTPs for spring water in eastern Switzerland, all of which include an ultrafiltration stage.

The high turbidity problem

During periods of dry weather, the quality of the spring water usually allows a direct supply to customers. However, this situation alters in wet periods and changes instantly after heavy rainfall. Turbidity increases rapidly and in many cases also organic substances exceed the desirable limit. Disinfection alone by means of UV or chlorine is no longer sufficient to meet drinking water standards and valuable spring water has to be rejected and left unused. During such periods, which can last for hours or days, shortages are generally covered by groundwater.

Advanced treatment technology using activated carbon filtration and membrane filtration enables suppliers to utilise their spring water all year round. Apart from increasing the security of supply with high quality drinking water, this also means that the frequently substantial costs of obtaining groundwater are avoided. Therefore an investment in a modern and reliable spring water treatment plant can quickly pay dividends.

Using kinetic energy sources

Furthermore, many spring water sources in alpine regions are suitable for the use of the geodetic altitude difference between the spring and the filter plant. Turbines of various designs produce environment-friendly energy, while part of the spring water is treated by modern systems for the drinking water supply. This combination of hydropower and drinking water production of the highest quality also facilitates the funding of such projects.

Latest WABAG treatment plants with ultrafiltration for spring water



BLGACH spring water treatment plant



MAIENFELD spring water treatment plant



GRABS spring water treatment plant

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