

Urban development study for extension of wastewater treatment plant Werdhölzli (Zurich)



As part of an urban development study, variants for the extension of the Werdhölzli wastewater treatment plant at the existing site in Zurich or a possible relocation of the plant to another site were evaluated.

Today, the Werdhölzli wastewater treatment plant (WWTP) cleans the wastewater of approximately 650'000 inhabitants in and around Zurich. Due to population growth, the biological treatment stage will soon reach its capacity limits. As part of an urban planning study, variants for the extension of the WWTP at the existing site and a possible relocation of the plant to an alternative site were evaluated: In a first step, the necessary treatment capacity and the long-term space requirements of the treatment plant had to be determined. Based on this, potential sites for a possible central WWTP in the Limmat valley were identified using GIS-based conflict analysis and mapping. Three options for the extension of the WWTP at the existing site (heightening, widening or building a new biological treatment) were then compared with scenarios for a central treatment plant downstream of the present site, to which several WWTPs in the region could be connected in the future. This was done by means of a sustainability assessment evaluating the economic, social and environmental aspects of the different alternatives. The urban planning study now serves as a basis for the short to medium-term extension of the biological treatment stage of WWTP Werdhölzli as well as for the long-term planning of wastewater management in the Limmat valley between Zurich and Canton Aargau.

Client

Entsorgung und Recycling Zürich (ERZ)

Facts

Period	2019 - 2020
Project Country	Switzerland
Zeitraum	2020 - 2055
Treatment capacity (2055)	1 - 1.3 million inhabitants
Space requirement (2055)	approx. 200'000 m ²

Contact persons

Reto Bühler
reto.buehler@ebp.ch

Nicolas Jauslin



nicolas.jauslin@ebp.ch

Dr. Andreas Zysset
andreas.zysset@ebp.ch

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