

## Capability Statement

# Recharge Well

Recharge well is a one of the water conservation efforts to protect of existence, capacity and benefits of groundwater.

Recharge well will observe the impact of production well, thus it is placed near the production well. A distance between production and recharge well is determined by the local government.

Groundwater conservation zone is determined based on evaluation and analysis result with involving stakeholders in the local area. The total depth of recharge well depends on a depth of production well.

Recharge well aims to refill the water to produced aquifer, hence the total depth shall be equal to production water, as well as screen and casing position. The depth of injection or recharge well is adjusted to depth of targeted aquifers

Recharge well is an infiltration well that is used to refill the damaged aquifers caused by excessive water production. (Peraturan Daerah Provinsi Jawa Barat, Nomor: 8 Tahun 2012, tentang Perubahan Atas Peraturan Daerah Provinsi Jawa Barat Nomor 5 Tahun 2008 Tentang Pengelolaan Air Tanah). The ability to construct recharge wells is a requirement in Surat Izin Pengambilan Airtanah (SIPA) submission in accordance with regulations

- Recharge well shall be able to recharge rainwater or surface run-off to the produced aquifers, directly;
- Water recharge shall be processed through filtration;
- Measuring and recording the water level, physical properties, chemical content, and groundwater biology in recharge well.



Figure : Recharge well site in North Sumatera

Specification of recharge well construction is explained on SNI 6469: 2012 about procedures of production well construction with direct circulation. This document explained that “there are three kind of production well, that are shallow, medium and deep with the sequence of preparation, drilling works and reporting.

Constructed well production is designed with objectives to be a production or monitoring well. Specification of recharge well can be smaller in diameter than the production one, since inside the well shall not be placed the submersible pump. Hence, it is recommended to use 6 inch well casing and 10 inch hole size.

The Material of this well can use steel or plastic pipe. The most important tool for recharge well is filtration bank. It is used to clean the water that will be injected to the well, so there is no contamination. Construction of filtration bank refer to SNI 8546: 2017 Sumur dan Parit Resapan Air Hujan or design of filtration bank made by SUPRA.

