

Option 1 (for Academic/ Institutional Researcher)

ARTIFICIAL RECHARGE OF GROUNDWATER BY INJECTION WELL

Mohd Khairul Nizar, S.^{1*}, Anuar, S.², & Ismail, T.³

¹²³National Water Research Institute of Malaysia, Lot 5377, Jalan Putra Permai, 43300 Seri Kembangan Selangor, MALAYSIA

*Corresponding author: nizar@nahrim.gov.my

Abstract

The availability of water resources is a prerequisite for Selangor's economic development and the swift expansion of different development sectors. This will put stress on already limited water resources, so it needs to be managed in the context of integrated water storage management. In order to store more water for use during droughts, it is imperative to store more water downstream, particularly in aquifers through artificial recharge. A collection of injection wells is typically installed to improve ground water recharge of downstream areas. In a small basin situated downstream of a river basin, the purpose of this study was to determine the injection well interval. Two injection wells were installed for the pilot test, and injections were made both simultaneously and individually in each well. The use of artificial recharge techniques facilitates the recovery of surplus water that can be stored in subterranean aquifers for use during dry spells. The project assists us in determining the best artificial recharge technique for groundwater in the surveyed areas, taking into account local factors such as population density, soil type, water demand, and other essential conditions. Injection wells should be planned with the security of a sufficient supply of water and economic viability in mind when creating an artificial recharge facility

Key words: *Artificial Recharge, groundwater, managed aquifer recharge*