

Design, testing and installation of a recharge wells system to offset the impact of groundwater abstraction

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Groundwater recharge system design, testing & installation, to return abstracted water to the aquifer, thus allowing the continued dewatering of the pump station construction site



Objective

One of our valued clients contacted us for help following the Environment Agency's intention to revoke their existing dewatering abstraction and discharge permits for Kenilworth Cutting. The area was being dewatered to allow the excavation of the Kenilworth Cutting pumping station. Stuart Wells was commissioned to explore the feasibility of a groundwater recharge system to enable the abstracted water to be returned to the aquifer.



Scope of Works

Stuart Wells conducted an initial site visit to determine the condition of the existing wells. This information was used to design a temporary recharge wells system.

In order to verify the viability of groundwater recharge for permanent works in the area, a series of groundwater recharge trials were undertaken and the groundwater levels monitored.

The recharge system consisted of drilling three new recharge boreholes via rotary air/mist drilling methods, installation and commissioning of a pumping (transfer) system and discharge pipework. The recharge wells were then tested to confirm the design effectiveness.





Solution

Stuart Wells completed the design, testing, and implementation of a groundwater recharge system to reduced the impact of the groundwater abstraction being undertaken to allow the construction of the Kenilworth Cutting pump station.

Stuart Wells will also provide a comprehensive recharge well maintenance programme to ensure long-term efficiency of the system.

Services	 Recharge wells system design & installation Recharge trial testing Recharge system maintenance
Location	Kenilworth, Warwickshire