

System and Method to Create Osmotic Saltwater Intrusion Barrier

Amy E. Childress and Tzahi Y. Cath

Summary: A method to eliminate or reduce or salt water encroachment into fresh water aquifers

Description: In many coastal areas seawater intrusion occurs when fresh water is withdrawn from aquifers faster than it can be recharged with fresh water. Saltwater intrusion adversely affects the quality of groundwater at the pumping well sites and at undeveloped parts of the aquifer. Intrusion barriers are created by injecting reclaimed or fresh water into the aquifer. As an alternative to current reclamation methods, an on-site, low-energy treatment of impaired water has been developed using the osmotic pressure of the saline groundwater. In this process the diluted brine is used as the feed stream to the intrusion barrier.

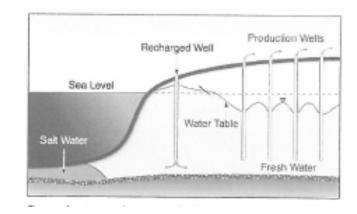
Main Advantages of this Invention

- Fewer treatment steps than current treatment methods
- Requires less energy than current treatment methods

Potential Areas of Application

Water and wastewater treatment facilities

ID Number: 9010



Intellectual Property Status: US utility patent pending (application #10/282,656)

Opportunity: We are seeking an exclusive or non-exclusive licensee for the implementation of this technology.

For more information contact: