

Finished Water

A PHOTOGRAPHIC PROFILE



Ion-exchange membranes filter and remove contaminants such as perchlorate and arsenic from Magna's groundwater supply. The BIOBROx process occurs in bioreactors (inset), which treat the EDR concentrate stream to destroy contaminants.

NEW WATER TREATMENT FACILITY SHOWCASES GREEN TECHNOLOGY

A groundbreaking water treatment process was unveiled by Magna Water District (Utah) for treating perchlorate-contaminated groundwater. Magna's water treatment facility incorporates electrodiolysis reversal (EDR), a process that uses an adjustable DC electric field, which is applied across ion-exchange membranes to reduce arsenic and perchlorate concentrations and remove other contaminants in the groundwater supply. In addition, a newly patented biological process for destroying contaminants

removed from the drinking water, Biodestruction of Blended Residual Oxidants (BIOBROx), converts the contaminated concentrate to water that may be used for secondary water reuse applications, groundwater aquifer recharge, and other uses. The BIOBROx technology was patented by Magna and Carollo Engineers.

PROJECT SPECIFICS

Project Name: Barton Well Field Drinking Water Treatment Facility

Owner: Magna Water District

Engineer: Carollo Engineers

Contractor: Alder Construction

Technology: EDR and BIOBROx work together to remove contaminants from groundwater and provide a reusable water resource.

Completion Date: The technologies were showcased during a Sept. 3, 2009, ribbon-cutting ceremony.

Water Source: District groundwater supplies