

# Aquifer Group's proven aquifer recharge and surface water restoration sciences help Texas overcome 8 million acre-foot water deficit

*Aquifer Group is part of Texas' first comprehensive public-private water infrastructure partnership*

**January 2007-Austin, Texas – Aquifer Group, LLC** locates, designs, finances, develops, constructs, operates and maintains prolific aquifer recharge, surface water restoration projects throughout rural areas of Texas. AG is developing sustainable groundwater reserves, recovery wellfields, treatment and supporting delivery canals and other infrastructure to enhance environmental flows, improve drought preparedness and provide dependable sustainable water resources for the State's growing water demand.

Aquifer Group was founded in response to the growing global gap between additional sustainable water resources and the government's ability to fund them. Aquifer Group is the first U.S. owned company with the capabilities to locate lost aquifer recharge and surface water restoration opportunities prolific enough to support the Company's private-sector solutions of development and investment to complete public water recovery and delivery infrastructure.

Aquifer Group's innovative science, engineering, financial and marketing skills redefine water resource sustainability. The Company has developed new groundwater sciences and greatly improved brush reduction and management methodologies to provide new and certifiable non-appropriated water to enhance environmental flows or be diverted into aquifer storage to support a new and sustainable water industry.

Aquifer Group's team of experts led by **John M. Seeley, Ph.D., AG Investor and Managing Director, Sciences**, developed three new technologies that redefine and redraw aquifer recharge and surface water maps while also providing the first comprehensive base for water management and real time flood and emergency management support. Building upon this platform, we have also developed new tools for tracking and monitoring global climate change, managing greenhouse gases and pollutants and establishing relevant communication grids for effective border or barrier security purposes.

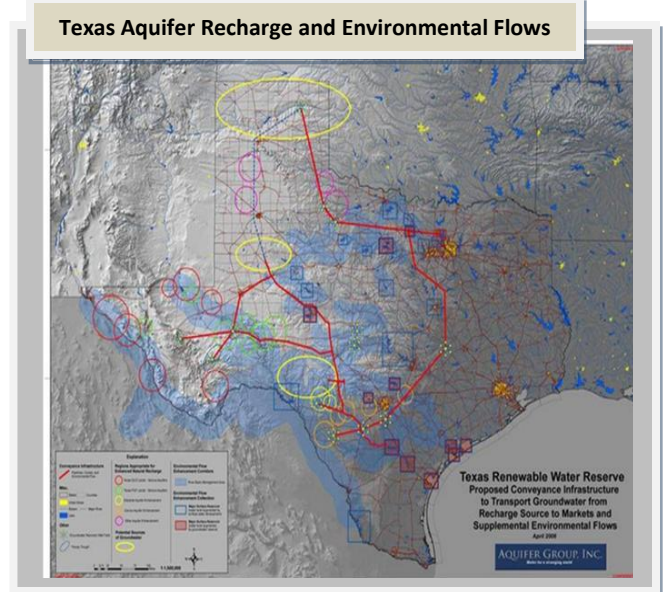
Through a combination of private equity from investors, alliances and arranged debt, AG is deploying three

important water restoration, measuring, monitoring and certification technologies throughout certain regions of Texas, New Mexico and Oklahoma.

**Aquifer Group's Integrated Resource, Runoff, Recharge, Reserve and Recovery (IR5) Technology** was designed in 1981 by one of Aquifer Group's founders as a new tool for aquifer remediation. Beginning in 2002, IR5 was redesigned to take advantage of major improvements in remote sensing, GIS and data mining technologies.

IR5 is a multi-phase, integrated set of methodologies utilized primarily for coherent recharge site identification, as well as feasibility study, aquifer delineation, watershed restoration and management, well field identification and development and marketing initiatives. It provides an economical, efficient and detailed means of data management and data interpretation, as well as an organized and efficient methodology for start-to-finish aquifer recharge, well field, watershed and transportation infrastructure management applications.

In 2004 Aquifer Group teamed with the international engineering firm of **CH2M Hill** to evaluate (via proof of process) AG's **IR5** System as a tool to locate and enhance lost aquifer recharge storage and recovery projects. The System was successfully proven to evaluate and identify lost or unknown recharge sites overlying the aquifers.



Aquifer Group's scientists and engineers incorporated reservoir engineering modules into Phase I through IV. These follow-on modules are designed to delineate the aquifer structure, identify recharge flow characteristics, locate areas within the reservoir where the flow of multiple recharge sites intersect and support location of well fields. For flow characteristic and well field location **IR5** serves as a data collection and processing platform to analyze data from sources such as existing geologic and hydrological data, well records and groundwater district data.

Separate **IR5** reservoir modules are utilized to identify and assess geothermal opportunities, brine or brackish water manipulation opportunities and to locate optimum

locations or structures to store compressed air generated by wind farms.

In 2005 IR5 Phase I through IV was upgraded to identify prime locations for selective brush remediation and rangeland restoration. New modules assess range topography, soils, vegetation, wildlife habitats and environmental conditions to identify GIS controlled brush sculpting opportunities to reduce evapotranspiration and increase surface water runoff or infiltration.

**Aquifer Group CEO, John Brocksch** negotiated interim Teaming Agreements with **Texas Tech University, Texas MESONET System** and **Raytheon** to complete design criteria of **Aquifer Group's Global Resource Flux Network (GRFNet)** to create the first large area comprehensive, real-time water measuring, monitoring and certification system to support water restoration, management and planning activities.

**GRFNet** monitors environmental conditions relevant to Aquifer Group's enhanced aquifer recharge and rangeland restoration operations. Running on IR5 model interfaces, **GRFNet** directly supports Aquifer Group's conservation and restoration efforts by providing comprehensive environmental data in real time (or near real-time) for next phase water project design and client billing information. **GRFNet** functions to gather regional weather and other measurements as a reconnaissance monitoring platform supporting initiatives to be developed.

**GRFNet** provides comprehensive monitoring and certification of restored water for specified areas of interest. **GRFNet's** operational footprint is expandable to meet new project demands. Data collected by **GRFNet's** network is relayed to the larger network managed by Aquifer Group's Data Acquisition Network and Operations Center (**DANOC**).

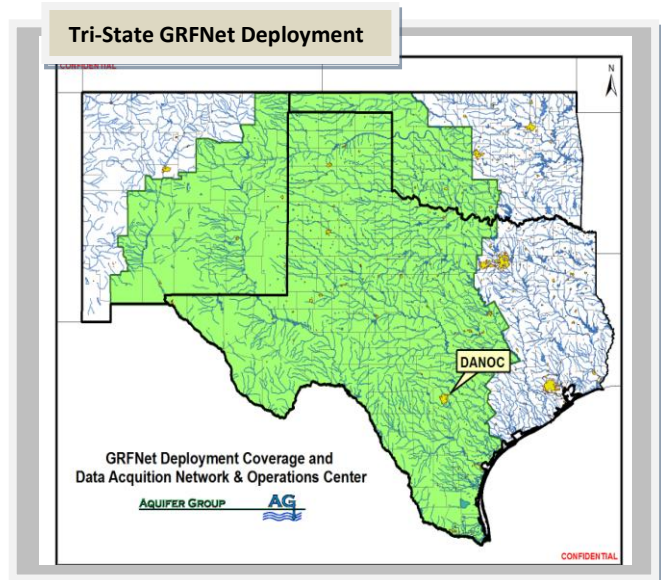
Through the able assistance of **Investor and Research Consultant Charles Christopher**, Aquifer Group is working to expand its **GRFNet Consortium** to include additional industry leaders, major universities and national research laboratories.

To design our **Data Acquisition Network Operations Center (DANOC)**, Aquifer Group is negotiating separate Confidentiality and Teaming Agreements with industry leaders, major universities and national research laboratories

The Data Acquisition Network Operations Center (**DANOC**) consists of a gridded regional network of tower-based, data relay stations linked to provide data of interest from **GRFNet** and other sources to the Operations Center. The network will utilize the new Wi-Max (IEEE 802.16a) technology for broadband data delivery in real time. Access to environmental, hydrologic, and other security related data in real-time is of vital importance to flood control and other emergency management providers and applications. This data also has paramount value for surface and groundwater planning for agricultural use, industrial and power water users, recreation, municipal water planning, water supply forecasting, etc.

**DANOC** is designed as a collection and assessment point, a data repository, and a clearinghouse for

environmental, hydrologic and other select data. The **DANOC** is the uplink for all measurements made by the **GRFNet** flux monitoring system, as well as for data acquired from other multiple sources.



**DANOC** provides data synthesis for all data acquired via the internet, including local, state, and federal data sources that are linked directly. As a data portal, **DANOC** will provide a valued community service as an environmental and hydrological (limited) data clearinghouse accessed via the internet. Select data can be packaged and assessed for dissemination to clients for water monitoring, flood control, and other emergency management applications. The Center also facilitates access to local and regional hydrologic data, and provides limited web-based tools for data analysis.

Development of the **DANOC** will occur concurrently with **GRFNet** flux monitoring network development, and alongside the implementation of Aquifer Group pilot projects. The **GRFNet** flux network will be operated and maintained via contract through the **DANOC** operations center. **DANOC** management oversees grid operation, expansion, and associated future functions.

Both **GRFNet** and **DANOC** include open architectures that allow inclusion and cross-marketing of additional products and services to our government and NGO clients. When appropriate, AG will transfer control of both **GRFNet** and **DANOC** to our industry leading consortium partners. Aquifer Group will retain a minority interest in both consortiums while maintaining supporting joint ventures with **GRFNet** and **DANOC**.

"Aquifer Group is excited about partnering with the State of Texas, Universities, major research partners and industry leaders on these important and innovative sciences and the opportunity to provide multi-state, real-time and quantitative measurement of water resources quicker without using taxpayers' dollars to fund construction or maintenance." said **Aquifer Group Chief Executive Officer John Brocksch**.