

Aquifer Group builds new global business model through sustainable water products and services

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

December (2) 2006 - Brownwood, Texas – Aquifer Group, LLC is structured to locate, design, finance, develop, construct, operate and maintain prolific aquifer recharge, surface water restoration projects throughout rural areas of Texas.

Aquifer Group was founded in response to the growing global gap between additional 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. As each sustainable groundwater reserve is developed, recovery wellfields, treatment and supporting delivery canals and other infrastructure enhance environmental flows, improve drought preparedness and provide dependable sustainable water "banks" for the State's growing water demand.

In addition to proprietary sciences and financial services our business model consists of six primary products and services. The following narrative outlines the design, build and operate specialties Aquifer Group and its partners excel at:

Restoration of Natural Aquifer Recharge: AG uses its proven sciences to locate and restore the earth's structures that at one time functioned as a conduit to divert prolific amounts of surface water into the groundwater system, or sand outcrops or fractures or faults that have not fully developed as conduits to divert water into protected storage. Lost structures often have been closed by siltation or sediment that prevents percolation of surface water into the underground strata. In other situations, erosion moved the source of water away from contact with the recharge structure.

Once identified and proven, Aquifer Group uses proven construction methods to restore the recharge structure to **produce new "Recharge Recovery Credits"** which are owned by the Company. Often this restoration is accompanied by the construction of diversion, sediment collection, wetlands and retention ponds to hold surface water over the recharge conduit until absorbed into the underlying aquifer or alluvial deposit.

Restoration of Surface Water Environmental Flows: Once clear savannas of grass and wooded creek bottoms produced pristine, filtered water runoff that supported ample spring flow, clear running creeks and supplied enormous amounts of water for lakes and reservoirs. This has been lost to proliferation of non-beneficial brush.

Aquifer Group uses its proprietary mapping sciences to locate optimum rangeland sites to employ carefully managed brush remediation techniques to reduce water lost to evapotranspiration. In semi-arid regions of the world, tens of millions of acre-feet of scarce rainwater are lost annually to noxious or non-productive vegetation such as rapidly proliferating mesquite and cedar trees.

Aquifer Group restores millions of acres of rangeland to its most water productive condition to **produce new surface water rights** that the company owns and can use for aquifer recharge or to enhance environmental flows.



Carefully Located Dual-Purpose Well Fields: We conduct extensive groundwater reservoir studies to locate optimum sites where the aggregate of Recharge Recovery Credits from clusters of recharge structures can be recovered. Matching this, and other information, with optimization of historical pumping rights, rule-of-capture rights and availability of brackish water locates the “**optimum groundwater pool**” over which Aquifer Group will construct each recovery well field which is designed to pump from three water zones.

Where possible, and near markets, AG constructs dual-purpose well fields. These facilities consolidate the above groundwater pool recharge recovery well field with a traditional “**Aquifer Storage and Recovery Well Field**” to increase storage and recovery of excess surface or groundwater rights, and, to provide for storage and recovery of treated effluent that would be lost to drainage or evaporation.

Water Treatment and Desalination Blending Facilities: Adjacent to Aquifer Group well fields, or clusters of well fields, the Company builds and operates highly efficient treatment facilities to clarify, desalt and blend waters from multiple groundwater sources. These high-volume facilities greatly expand the production of marketable water by allowing us to utilize water from three pay zones:

1. Recharge Recovery Credits (RRC)
2. Rule-of Capture or Historical Water Rights
3. Non-regulated Brackish or Salt Water

Treatment facilities operated in conjunction with our ASR Well Fields provide opportunities to reprocess treated effluent for injection and storage within our aquifer storage reserve. When recovered from multiple pay zones Aquifer Group blends that water with freshwater from the aquifer(s) to produce sustainable, high-quality water on demand.

Water Delivery Canals and Pipelines: Similar to the Central Arizona Water Project, Aquifer Group designs and constructs large-volume concrete lined gravity-flow open canals to transport water from its well fields and blending facilities to the urban water markets. Where gravity flow is not possible, we use large diameter pipelines and associated pumping facilities to transport water.

At higher elevations the Company builds and operates earthen pumped storage facilities to balance water flow. Properly designed these locations also produce low-head hydroelectricity by utilizing the drop in water from storage to canal or pipe located in valleys below. Where possible, we utilize streams and rivers to facilitate delivery into existing lakes for distribution through our clients’ existing urban water delivery system.

Integration into a Statewide water reserve and delivery system: Aquifer Group consolidates its products and services into a comprehensive public/private partnership with state, federal or international agencies to overcome growing water deficits worldwide.

Aquifer Group has selected Texas as both its headquarter location and site of its first major comprehensive project. The **Texas Strategic Water Conservation Reserve** is designed to create a 20 million acre-foot groundwater reserve (bank) and restore an estimated 1.5 million acre-feet of sustainable environmental flows annually. When completed, **this partnership will eliminate Texas’ looming 8.25 million acre-feet water deficit predicted before the year 2060.**

