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FOR IMMEDIATE RELEASE

**UTILITIES CONSERVE WATER FOR THE FUTURE
THROUGH AQUIFER STORAGE AND RECOVERY WELL SYSTEMS**

Florida's precious freshwater supplies, under increasing demand from human consumption and environmental needs, are being bolstered through a new conservation technique that stores water hundreds of feet underground for later recovery and use.

The five aquifer storage and recovery systems now operating in Florida pump excess potable water down a deep well during Florida's rainy season, when utilities have the least demand for fresh water. During the dry season, when demand for water is high, the stored water is withdrawn and distributed to consumers.

The storage area lies approximately 1,000 feet below the surface in the Upper Floridan Aquifer, a layer of porous limestone rock containing a vast reservoir of water. Beneath Florida's southern Peninsula, the waters of the Upper Floridan are brackish and require costly treatment to remove naturally occurring dissolved solids, particularly salt, before being used as potable water.

Freshwater pumped into this aquifer displaces the native brackish waters, creating a low-cost storage area that has practically unlimited capacity for freshwater supplies.

ASR technology has spread to much of the nation as well as across Florida. As of May 1996, Florida had aquifer storage and recovery wells at Cocoa, Manatee County, Palm Bay, Boynton Beach, and Peace River Water Supply Authority. Potable water is currently used in ASR systems in Florida, but canal water, lake water and reclaimed wastewater, which are now being wasted, are potential, future sources for ASR systems.

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Florida's largest operational wells are at the City of Cocoa (six wells with 8 million gallons a day total recovery capacity) and the Peace River (nine wells, also with 8 mgd total recovery capacity). ASR systems are in various stages of development, construction or testing at approximately 15 Florida utilities (Miami-Dade, Delray Beach, Sunrise, Broward County, Fort Lauderdale, West Palm Beach, Palm Beach County, Collier County, Lee County, Manatee County, Punta Gorda, Hillsborough County, Tampa, St. Petersburg, New Smyrna Beach).

Advantages of ASR wells include:

- Conserving some of the excess rainwater that is now wasted via canals into the Atlantic Ocean and Gulf of Mexico.
- Reducing withdrawals from and environmental impacts on shallow aquifer wellfields, streams and wetlands during droughts.
- Improved water management for wetlands systems and agribusiness.
- Low cost, relative to other alternatives such as purchasing land for surface storage of water.
- Less saltwater intrusion into shallow freshwater supplies along the coast.

By storing excess freshwater, ASR wells can substantially augment the dry-season supply to urban, agricultural and industrial water users with no impact on surface waters or shallow water-supply wells. Nor is there loss of precious freshwater to evapotranspiration.

A typical ASR well has the capacity to deliver 1 million gallons of water per day -- enough to supply approximately 5,600 people using the average 179 gallons per day. Construction of one ASR well takes three to four months at a cost of approximately \$1.5 million. Youngquist Brothers, Inc., of Fort Myers, is the leading contractor of ASR wells in Florida.

ASR systems could play a significant role in urban areas where dramatic population growth places greater demand on traditional sources of drinking water.

In Southeast Florida, for example, the 5 million residents of Dade Broward and Palm Beach counties use approximately 895 million gallons per day -- enough to cover 1 million acres of land with water one foot deep. The water comes mostly from the shallow Biscayne Aquifer, and overpumping, especially during the dry season, results in lower lake levels and saltwater intrusion of groundwater supplies.

Meanwhile, South Florida receives approximately 60 inches of rain during a typical year, and most of this precious resource is lost via canals into the Atlantic and Gulf of Mexico. Directing this water into ASR wells could capture an otherwise wasted resource.

Numerous environmental advantages, as well as cost-effectiveness, have spurred the growing interest in aquifer storage and recovery systems by water managers and utility directors in Florida and other states.

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