Aquifer Storage and Recovery: A Bad Alternative

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Abstract. Aquifer Storage and Recovery (ASR) is the practice of injecting surface, ground or treated wastewater into an aquifer for storage and later recovery during times of high demand. ASR can be risky to public health through increases in arsenic contamination and/or the introduction of bacteria, pathogens and disinfection byproducts to the aquifer water. 59% of Florida's ASR sites have been abandoned or operations suspended for reasons including arsenic mobilization or the inability to recover the "stored" water. Some ASR projects in South Carolina have experienced well-clogging and bacterial growth. ASR can also be risky to taxpayers' wallets. There are many unanswered, potentially devastating questions as to the expense of ASR. Who pays for an ASR project in Georgia? What happens if it fails? Who's left with the debt? These projects can cost millions if not billions of dollars. Arguably the most troubling aspect of ASR involves the issue of water rights, property rights and the legality of the practice. Who owns water that is put into an aquifer? What happens if that water can't be recovered, or it moves/mixes with native ground water? As Georgia's leaders work to balance quality and quantity of our water resources, we shouldn't be looking to risky water supply schemes but instead to using the water we do have more wisely. Conservation and efficiency techniques are available and much cheaper than reservoirs or ASR – which could ultimately cost us more than just money but our health too.