The Northern Guam Lens Aquifer

~ Its Four Basic Parts ~

The Northern Guam Lens Aquifer supplies 80 percent of Guam's drinking water. This poster briefly describes the basic geology features by which it captures and stores the fresh water that supplies Guam's modern economy and quality of life. Like all limestone aquifers, the Northern Guam Lens has four main parts. 1) The right, now-produced basement rock that contains the base of the aquifer; 2) above the basement, the porous, soluble, water-bearing limestone lens; 3) fresh water in the lens that is constantly flowing toward the coast; and 4) the fresh-water surface, which captures rainfall, the sole source of the fresh sector in the aquifer.

1) The Base of the Aquifer: 1. Limestone Bedrock: The Barrigada Limestone comprises the bulk of the aquifer. It is the horizon located at the top of the very soft volcanic basement beneath the land surface. It is composed of fine-grained material that is easily eroded, and is invulnerable to saltwater contamination. The water descending down the hills and located, such streams and patches of supra-basal water are the freshest water in the aquifer. 2. Volcanic basement: Yes. The volcanic basement is unweathered rock deep beneath it. It is the horizon located between the limestone bedrock and the unweathered rock that underlies it, the saprolite. It is the horizon located at the base of the aquifer. 3. Volcanic basement: No. The volcanic basement is the horizon located at the base of the aquifer. It is the horizon located between the limestone bedrock and the unweathered rock that underlies it, the saprolite. 4. 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