

SYNERGY SHED TREATMENT

UV Disinfection Unit

Garness Engineering Group, Ltd. (GEG), based in Anchorage, Alaska, was contracted by the Alaska Native Tribal Health Consortium (ANTHC) to provide engineering services for the design and installation of septic systems throughout their South Central Region. GEG was tasked with providing a septic system for one of ANTHC's residential customers located in Glennallen, Alaska. Glennallen is near the foothills of the scenic Wrangell Mountains and St. Elias National Park. The area has a sub-arctic climate, with extremely long, cold winters and relatively warm summers.

The site visit made it clear that there were unique challenges that would not allow the installation of a conventional septic system. The property consisted of a home constructed on classified fill which was placed over wetlands and permafrost. This meant a percolation test would not be feasible. GEG had installed numerous Quanics AeroCell® systems throughout Alaska, including Quanics' mobile Synergy® systems. Quanics worked with GEG to develop a residential-sized Synergy® unit for them that would meet the stringent secondary treatment and effluent disinfection requirements established by the State of Alaska Department of Environmental Conservation (ADEC). It was also important to the ANTHC program manager, Jeff Bonin, that it be energy efficient, easy to maintain, reliable and require no operator. When GEG presented the Synergy® concept to Mr. Bonin, he was impressed.

The system was installed in the month of November when the outside temperature reached -30° F. Given that the unit was delivered to the job site fully constructed, all that was required in the field was to provide power and a few pipe connections. Construction went smoothly and the unit was commissioned within two days of delivery. Equipment included a modem that will contact the property owner in the event of an alarm condition.

Since installed, performance has been flawless and the property owner has expressed satisfaction regarding the reliability of their new Synergy® system.





