SUNDRIVE, INC.

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Information, Sundrive Greenhouse Wastewater Systems

Enclosed is information describing the Pennsylvania DEP *Alternate Systems* listed Sundrive Greenhouse BiovaporatorTM Evapotranspiration (ET) System for single family homes and small commercial uses, which is used for sites that cannot support soil absorption type on-lot wastewater systems, such as elevated sand mounds, and spray or drip (trickle) irrigation. The greenhouse space can usually be used for horticulture.

Also enclosed is a copy of an article describing a small community sized (11 homes) variation of the Sundrive Greenhouse System which has been operating for over 10 years at a site near State College, PA. This system, which is larger in scale and different from the typical single family home sized System, includes a greenhouse enclosed constructed wetlands and aquaculture treatment unit, with recycle of treated effluent as toilet flushwater, using ET beds for effluent disposal. This System has been working well since start-up, producing a very high quality effluent, and is being operated by community homeowners, who are using most of the greenhouse area for various horticultural projects. A Sundrive system with reuse of treated effluent for toilet flush water with the balance of effluent going to drip irrigation is under construction for a 14 home community in Adams County.

The concept of enclosing ET beds inside of a solar greenhouse was pioneered by Sundrive, starting in 1981. Over the years, many systems have been permitted and installed to handle the wastewater from small commercial facilities, in addition to those for single family homes, and the community system at Julian Woods. A large greenhouse ET system was constructed in 2004 to serve some of the buildings at the Tresslercare Wilderness Center in Boiling Springs, PA.

Thank you for your interest in Sundrive Greenhouse Wastewater Systems. My services normally include preparing a system design and specifications using a base plot plan by others, submittals and correspondence to gain approvals from the SEO and PADEP; and the municipality if required. I also work with the builder of the system, to help ensure that proper construction materials and procedures are used. Please call or email if you have any questions and to discuss your project.

Thank you for your interest in Sundrive.

Very truly yours,

Michael A. Zavoda. P.E.

LEEDTM Accredited Professional

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