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Two firms partner to address fracking issues

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of the Alfred Lions Club

ALFRED–At a fall 2011 Alfred Lions Club meeting, Alfred University geologist Otto Muller presented an over-view of the technology of hydrofracking.

Muller, at that time, also addressed hydrofracking-related subterranean concerns (potential aquifer pollution by chemicals added to the fracking water) and numerous above-ground concerns to the public. Such concerns include noise and air pollution, environmental disruption, road damage and particularly where retrieved fracking water or 'flow back' is disposed considering the chemicals that are added to make the fracking water 'slick'.

At the Alfred Lions Club's February meeting, Club members heard how the expertise of two very different companies, Casella Waste Systems based in Vermont and Altela, a water desalination company in New Mexico, are addressing those concerns.

Casella and Atela merged in a partnership to develop a more cost effective and environmentally friendly process for treating dirty fracking water or "flow back" from hydraulic fracturing for natural gas in the Marcellus Shale.

Larry Shilling, Regional Vice President of Casella Waste Systems, explained how the strengths of the two companies meshed perfectly in addressing many of the problems associated with hydrofracking. The talk used the new waste water facility in Kean County, PA to illustrate the physical and functional aspects of this partnership.

In the partnership, "Casella-Altela Regional Environmental Services" or "CARES," Casella provides the working infrastructure and operational treatment facilities. Altela provides the technology (a non-conventional thermal distillation process, trade-marketed as AltelaRain) to turn the brackish, salty "flow back" into clean distilled water by mimicking the steps by which rain is naturally created from ocean water.

Casella's landfill provides the methane to drive the thermal distillation process, condensation and collection of clean water, and the on-site distillation towers of corrugated plastic plates facilitate the exchange and recollection of heat from the cooling and condensing steam vapor across the plates for distillation for further use in distillation of additional brackish, salty water.

The final product is described as having the same quality as rainwater, but the Altelarain process is more efficient than rain production above the ocean because the heat released from condensing water can be captured and reused.

In addition to the advantage of combining the Altela condensation process with an available source of methane to drive it, the location of the water treatment facility at the Casella owned landfill in McKean County provides other solutions to problems associated with fracking.

Rather than open lagoons, they have large closed containers for storage and transport of brackish and clean water, "flow back" and well drill cuttings. An existing railroad spur adjacent to the McKean facility would reduce truck traffic and the associated problems to and from the facility.

It will enable rail transport of large volumes of 'flowback water' from the fracking sites to the treatment plant and the movement of clean treated water of different salt concentrations to its customers, the majority being fracking sites in PA and NY that reuse treated water rather than new water.

Also, since wet drill cuttings must be compacted for landfill disposal, drill cuttings can be transported to the landfill and compacted with appropriate on-site waste and added to the landfill. By using this local railroad spur, they hope to be able to service a large area of PA and eventually NY, thus significantly reducing road traffic.

While the future of hydrofracking in New York continues to be under discussion and debate because of the many related problems, companies such as Casella and Altela have been giving consideration to ways in which the process could be altered to potentially have less of an environmental and personal impact on the public.

LARRY SHILLING, regional vice-president of Casella Waste Systems, speaks to members of the Alfred Lions Club. (Brad Bowden Photo)