Turning garbage into gold

Composting facility upgrades celebrated at Windham Solid Waste

BY CHRIS M AYS Brattleboro Reformer

BRATTLEBORO — Upgrades to a composting facility at the Windham Solid Waste Management District are being hailed for their innovation and efficiency.

"These enhancements double this facility's composting capacity," said Michelle Cherrier, chairwoman of the WSWMD Board. "It accommodates significantly more volume and tonnage within the same footprint, enabling this site to operate under the next larger size permit, a medium sized permit from the Vermont Agency of Natural Resources Solid Waste Division."

Windham Solid Waste Management District celebrated the completion of its compost facility expansion at an event last Thursday. Cherrier said the project is "possibly the most important development since the creation of this district and the addition, of course, of the solar."

Started in 1995, the district is now made up of 18 member towns. In 2018, the 5-megawatt solar array on a closed landfill was energized.

Food scraps are banned from landfill disposal under Vermont's Act 148, Cherrier said.

"Trash haulers have developed new business to collect and haul organics to the district composting facility, and they are major partners in this venture which started in 2012 at the request of the town of Brattleboro and Triple T Trucking, prior to the state mandate," Cherrier said, referring to the town's previous hauler.

A tour of the facility showed how heat and moisture from active compost piles is captured and directed to new compost piles to jump start the process, using a compost aeration and heat recovery (CAHR) system from Agrilab Technologies of Enosburg Falls. The facility is on a 3-acre parcel adjacent to the solar array.

Cherrier said the upgraded composting facility "now boasts a comprehensive, covered AST, aerated static pile."

"It's a composting system that plays the key role in transforming food scraps into nutrient rich compost. It has a biofilter, improved water management from swales, a vegetated treatment area and a new stormwater pond onsite," Cherrier said. "This state-of-the-art system ensures about four weeks of organic food scraps composting before transitioning to turn windrow processing. It streamlines the entire composting workflow."

Funding for the approximately \$750,000 capital investment came without the district incurring long-term debt thanks to a Vermont Agency of Natural Resources grant of \$277,000, a U.S. Department of Agriculture grant of \$150,000, \$9,000 from the Brattleboro Development Credit Corporation and \$305,000 from district surplus revenue.

The facility was named one of 12 "vital projects" for economic and community development in Southern Vermont by BDCC. Dani Delaini, assistant director at BDCC, said the district "has really committed to continuous improvement and to evolve to meet emergent needs in the community."

"[T]his plan and this vision for what this can be is in such direct alignment with the Comprehensive Economic Development Strategy for the whole of Southern Vermont," Delaini said. "So it's one success here in our region but it's a success for the whole of Southern Vermont, working together as we're moving forward to make big projects happen."

Ben Gauthier of the Vermont Department of Environmental Conservation's Solid Waste Program, recounted having conversations with WSWMD Executive Director Bob Spencer during the COVID pandemic about how the district was a "victim of its own success."

"They've done such a good job of promoting food scrap separation that they were kind of bumping up against the top of the permitted capacity of the small registration permit that they had," Gauthier said. "So it's a good thing to be so successful that you're pulling that much organics out of the wastestream. But it also creates a bit of a wrinkle when the state's like, Well, you're not authorized to take more than that."

Gauthier said he's "so excited to see how the program is going to grow and develop over the next coming years."

Brian Jerose, president and cofounder of Agrilab Technologies, said the upgraded facility "fits this scale" and redesigns were made to bring the project in on budget.

"A lot of our early projects were on dairy and livestock farms," Jerose said. "So I guess where that has been able to be applied here is we're used to working with frugal Yankee dairy farmers, and this project needed to be done on a relatively small budget."

About five solid waste hauling companies bring in food scraps among other items, Spencer said. School districts in the area contribute as do restaurants, colleges, food manufacturers, breweries and chicken farms.

Five distributors sell BrattleGrow Compost made from material brought to the facility. Spencer estimated having "thousands of happy users," whose gardens, lawns and stormwater management benefit from the product.

At one point, times were tough at the district. Money needed to be borrowed to make payroll, Spencer said.

"So we've kind of reinvented the district around this organic waste and having a product," he said. "Now this compost facility is actually a profit center."

During a tour, Jerose described the composting "recipe."

"Instead of baking a cake, you're trying to get the right amount of carbon and nitrogen," Jerose said. Mixing the materials together well is the next step. Jerose said the composting process can take eight to 10 months but the new upgrades are anticipated to bring it down to about four to six months.

Currently, the district is about three months into the newly upgraded operation. Starting in February made it difficult to keep the temperatures at the right level.

Other contractors involved in the project were Zaluzny Excavating, Clear Span fabric buildings and the engineering firm of Sanborn Head.



Bob Spencer, executive director of Windham Solid Waste Management District, talks about how the new state-of-the-art food scrap and organic materials composting facility works on Thursday. PHOTOS BY KRISTOPHER RADDER — BRATTLEBORO REFORMER



People tour the new state-of-the-art food scrap and organic materials composting facility.



Bob Spencer, executive director of Windham Solid Waste Management District, talks about how the new state-of-the-art food scrap and organic materials composting facility works on Thursday inside the Agrilab Technologies compost aeration and heat recovery unit. KRISTOPHER RADDER — BRATTLEBORO REFORMER