

BUILDING SOMETHING SUSTAINABLE

Michigan's Kent County sustainable business park is an example of how communities can implement a circular economy model to help better manage waste.

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Atop the Kent County landfill, March 2019.

Photo by W. J. Davies Photography

The recycling landscape has shifted considerably over the past year. At first blush, the international outlook seems grim; however, there is more to the story. Seeds of growth, cooperation and innovation have started to develop into opportunities for domestic recycling. One such initiative that has taken root is occurring in Kent County, Michigan. In the face of landfill and international recycling market constriction, the Kent County Department of Public Works (DPW) is implementing its Sustainable Business Park Master Plan: a wholistic and localized approach to sustainable material management (SMM) that promotes a circular economy where resource inputs, wastes, emissions and energy leakages are minimized.

THE KENT COUNTY CONCEPT

The concept for a sustainable business park was born out of Kent County DPW's vision to divert 90 percent of waste from its landfill by 2030. The Sustainable Business Park Master Plan for Kent County, finalized and officially adopted in 2018, offers a roadmap for how the community and the DPW can work together to implement their shared vision where waste materials are reclaimed or converted into new products or renewable energy. The master plan was the result of months of research, community conversation and deliberation by stakeholders. The plan also required collaboration with input from local, state and national experts. Now in 2019, the plan is coming to life.

Beginning in fall 2017, the Kent County DPW kicked off a series of conversations with the commu-

nity, including residents, business leaders and key stakeholders, with the help of local and national solid waste experts that included McLean, Virginia-based consulting firm Gershman, Brickner & Bratton Inc. (GBB). Over the course of a year, Kent County DPW gathered input from the conversations to help inform the master plan. Throughout the process, the combination of participants helped Kent County lay out a practical plan with community buy-in for the framework necessary to support a regional circular economy that benefits the community while simultaneously leveraging the private sector.

The sustainable business park is planned to be located about 12 miles south of Grand Rapids, Michigan, and be built on 250 acres adjacent to the South Kent Recycling and Waste Center (which includes its landfill). The design of the park also includes plans to develop, integrate and collocate a variety of companies and partners as park tenants that will help the county meet its waste reduction goals. These goals include a 20 percent reduction in landfilled waste by 2020 and a 90 percent reduction by 2030 through a combination of recycling, reuse, conversion, diversion and manufacturing. With its proximity to the South Kent Landfill, as well as a major transportation artery and a rail line, the property is suitable for a variety of tenants. The land was acquired by the county over 30 years ago with the original assumption that the landfill would eventually expand to meet the disposal needs of the community. However, the birth of the sustainable business park idea was rooted in Kent County's desire for a waste management par-

adigm shift to better use the land for the more than 1 billion pounds of recovered materials processed annually, which include municipal solid waste (MSW), construction and demolition (C&D) and organic wastes, among others. According to Kent County estimates, 75 percent of this material is reusable, recyclable or convertible to energy or fuel.

Additionally, the master plan recommended three immediately implementable projects to address the growing amount of waste going into local landfills: processing C&D waste, implementing ash-mining and composting organic waste. The plans for these projects are currently being developed and include a composting facility that will capture an estimated 30-35 percent of organic waste entering the landfill. It is also envisioned that a mixed waste processing facility may be an anchor of the sustainable business park in order for the DPW to realize its aggressive waste reduction goal by 2030.

After a year of community engagement and planning, Kent County DPW and its waste management planning team received unanimous approval in October 2018 from the Kent County Board of Public Works for the Sustainable Business Park Master Plan.

"The sustainable business park is an important step in the right direction to find alternatives to landfilling waste," Kent County DPW Director Dar Baas says. "The Board of Public Works' approval of this master plan indicates broad support for moving toward implementing a practical, innovative approach to managing our waste while creating jobs in our region."

To better understand potential businesses that could become tenants of the sustainable business park, Kent County DPW issued a Request for Information (RFI) to gauge interest from a variety of companies. The RFI generated 23 responses from businesses around the world.

Now in spring 2019, Kent County DPW is continuing the business development process as it formally evaluates relationships with companies that bring the right combination of experience and solutions to the park, including those who already responded to the RFI.

BENEFITS TO THE REGION

According to the Michigan Manufacturers Association (MMA), Michigan is home to one of the largest manufacturing hubs in America. The state's economic impact exceeded \$2 trillion in the first quarter of 2018 and more than 600,000 people are employed in the manufacturing sector alone. Grand Rapids, once known as "Furniture City," is the county seat of Kent County and is now commonly referred to as "Beer City USA" based on the growing number of craft breweries and craft beer retailers. Thanks to the associated waste streams from manufacturing, breweries and other major industries in West Michigan, such as healthcare and agriculture (there are nearly 1,500 dairy farms in the state), the park will have diverse material inputs and the ability to provide broad community benefits through SMM.

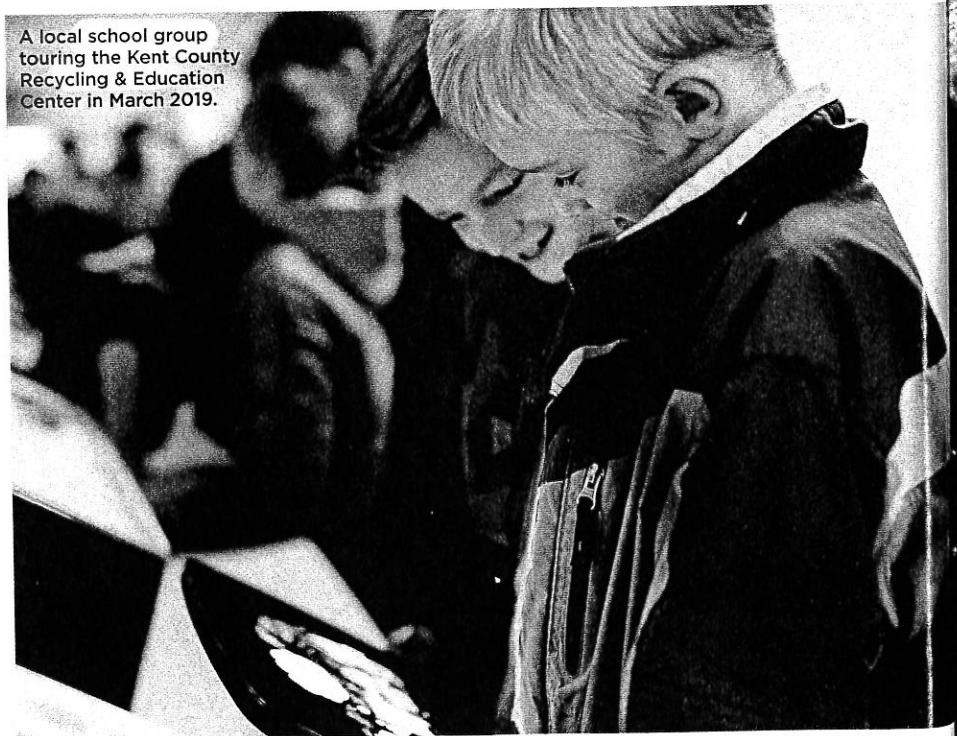
Kent County sees three main benefits for the local community stemming from the park. First, Kent County projects opportunities for economic development, research, education, agriculture and recreation. Attracting park tenants that will cooperatively reuse, recycle and recover the energy of the discarded materials will spark complementary research and entrepreneurial companies that will be able to tap into the synergy of the park and create intermediate or

final products from the products or byproducts of others.

For a sense of the scale of magnitude, the value of the MSW disposed in Michigan is in the hundreds of millions of dollars. Per a study released by the West Michigan Sustainable Business Forum and Grand Valley State University, "If all material of value was recovered and sold to the market, it would have an estimated total economic impact of up to \$399 million per year and an employment impact of up to 2,619 jobs." In Kent County alone, the Sustainable Business Park Master Plan estimates \$130 million in local economic impact and 150 new jobs if a processing and waste sorting component of the park is implemented.

Second, by diverting most of the recoverable material, the sustainable business park will help Kent County maintain or extend its disposal capacity at its current landfill, which at its current rate is expected to be full in less than eight years. Siting new landfills can be difficult, so lengthening the life of its existing landfill will be a key for future disposal security of unrecyclable materials for the county. It will also help the DPW turn toward a new model to manage its waste, which could be a model for replication elsewhere.

Third, the park will be a destination to directly experience a localized SMM system.





Left to right: Dar Baas, Kristen Wieland, and Jennifer Porter

However, the park will not be an island. It will be complemented by tours of the county's waste-to-energy (WTE) facility operated by Covanta, its landfill and the Kent County Recycling and Education Center, which is a material recovery facility (MRF) complete with a recycling exhibit.

Kent County turned to Xibitz, a national exhibition design and installation firm located in Grand Rapids, to put together an interactive, engaging and accessible recycling exhibit experience for both children and adults. In 2018, almost 8,400 people came through the exhibit and toured the county's WTE, landfill and MRF facilities, which are all provided to the community free of charge.

When the sustainable business park is complete, attendees will be able to expand their learning experience to include the full loop of resource management—from collection, sorting and processing to recycling, manufacturing and capturing energy.

THE PEOPLE BEHIND THE PLAN

A talented team was involved in the Kent County Sustainable Business Park Master Plan development process. Three key individuals spearheading the plan include Baas, Kent County DPW Marketing and Communications Manager Kristen Wieland and GBB Senior Project Manager Jennifer Porter. They all took a bold step to begin the journey to not only think about waste differently, but also do something about it.

"It's an incredible experience to work on such a profound and potentially impactful project with such a great team whose goals you fully support and believe in. I have been able to bring my passions and profes-

sional interest to this project," Porter says. Local engineering firm FTC&H, regional partner Sustainable Research Group, national financial experts PFM and communications firm Byrum & Fisk were on the master plan team.

Today, the sustainable business park project team continues to work together in conjunction with other stakeholders to further enact the park's development strategy. In March, the Kent County DPW announced a multi-year strategic partnership with The Right Place Inc., West Michigan, to support business development and infrastructure planning efforts. The Right Place will also assist with managing community partnerships and identifying new sources of funding for the sustainable business park. Together, Kent County DPW and The Right Place will continue to identify potential tenants as they formally evaluate relationships with companies that bring the right combination of experience and solutions to the park, including those who already responded to the RFI.

REPLICATING THE PROCESS

A confluence of factors was critical in the advancement of the Kent County Sustainable Business Park, including political will, population density, proximity to transportation corridors, prevalence of local manufacturing, favorable regulatory environment, sufficient land for the site and an integrated waste management system (MRF, WTE and landfill) that is managed by local government. Another key element of the park that will be critical to its success will be the diversity of its tenants. While the mix of tenants will need to change from park to park, this localized model

THE SUSTAINABLE BUSINESS PARK IS AN IMPORTANT STEP IN THE RIGHT DIRECTION TO FINDING ALTERNATIVES TO LANDFILLING WASTE."

—DAR BAAS, KENT COUNTY DPW DIRECTOR

of SMM can be replicated elsewhere. Like other such parks—and the concept of a circular economy writ large—the Kent County project emphasizes interconnectivity.

In the beginning planning stages, gathering the right mix of experts is essential to consider right-sizing and feasibility, as well as for putting together a framework to solicit stakeholder input. As other communities look to develop similar plans, soliciting community engagement (e.g., through the development of a stakeholder advisory committee) and identifying champions and leaders of the project should be prioritized. Community engagement was an important part of ensuring all stakeholders had the opportunity to voice their opinions during the planning process in Kent County and develop ownership over the plan when it came time for official approval—this is sure to be true elsewhere.

While every community is different, the sustainable business park model is one worth replicating. However, variables such as park size and tenants can, and should, be tailored to fit the host community. In the face of larger international recycling market challenges, the concept of a stable and local waste management infrastructure is an attractive one—not only to benefit us in the present, but also to benefit future generations. The key is taking the time on the front end to develop a strategy, bring together experts and engage with local residents in a way that maximizes the potential of each community. **WT**

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