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SOLID WASTE MANAGEMENT CONSULTANTS

# Circular Economy / Eco-Industrial Park Planning & Development

## Overview

Communities across North America are looking for innovative and ambitious solutions that fulfill their waste diversion and zero waste objectives, develop local/domestic capacity for sustainable materials management, and further their goals to enhance local sustainability and resilience. One powerful response is the advancement of circular economy models that keep markets, materials, and resources local – in contrast to the linear economy, which is based on a 'take, make, waste' model of consumption – with the development of eco-industrial parks (EIPs).

In a circular economy, resources are not simply materials to be consumed, and waste is not just a burden to be managed. Rather, resources and waste are both valued nutrients throughout the economic production lifecycle. Circular economies aim to keep as many resources as possible within circulation at their highest level of utility, including what one would normally think of as waste. Waste is an important material input, or "food," for the production cycle of a circular economy.

EIPs bring together businesses and manufacturing processes in a local value-added system where virgin resource inputs, waste and emission outputs, and energy leakages are minimized by slowing, narrowing, and ideally closing material and energy loops to eliminate loss. The development of successful circular economy projects is achieved through thoughtful design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling, which narrow the material and energy loops to reduce resource loss with disposal as a small component used only as a last resort.

## Multi-Disciplinary Teams Led by GBB

Focused on helping communities plan and implement innovative, economically sound solid waste management solutions that protect the environment, GBB is uniquely qualified and positioned to help develop circular economy solutions. With its strategic approach, extensive experience, wide range of resources, and partnerships with firms specialized in areas of expertise key to the development of circular economy initiatives, GBB leads multi-disciplinary teams that can assist local governments and organizations in evaluating options, setting a long-term vision, developing plans, and implementing EIPs that will benefit their host community.

**GBB understands how to successfully navigate the process:**

- Life-cycle analysis/environmental impact assessments
- Facilitation of public-private partnerships
- Policies and strategies to drive market demand
- Long-term circular design thinking/strategy
- Project / Multi-disciplinary team management
- Technical / Economic feasibility studies & procurements
- Stakeholder and cross-sector engagement, education, and partnership facilitation and collaboration
- Waste stream and Market & Existing Conditions analyses
- Public infrastructure evaluation and options analysis
- Conceptual site development plan & Project implementation


*Image courtesy of the European Parliament*

# Past Performance

GBB is a proud development and planning partner of these two ambitious circular economy projects expected to have major economic, social, and environmental impacts (all 3 pillars of sustainability) to their communities – bringing in investments, creating local jobs, and providing significant environmental benefits.

### Development of Sustainable Business Park - Kent County, MI

The County has set a bold goal to divert 90% of the trash that goes to landfills by 2030. Building a Sustainable Business Park, with the assistance of GBB as a planning partner, is an essential part of reaching that goal, helping to significantly reduce trash buried in landfills and attract investment and jobs from companies that can convert waste into usable products. The Sustainable Business Park will co-locate the processing of the existing waste stream supply (intake) with new processing and manufacturing opportunities to bridge the gap between waste and "food" for industrial processes. For the latest info on the project, see: www.gbbinc.com/KentCounty

### Development of Prince William County Eco-Park - Prince William County, VA

GBB is assisting the County transform its landfill into an Eco-Park, a community resource producing energy, recovering valuable materials and providing unique opportunities for education. Latest info on the project: www.gbbinc.com/PrinceWilliamCounty


# Thought Leadership

GBB consultants author and present often on this topic. Recent articles and presentations include:

- MRF Capabilities and Circular Economy Off-Ramps, Brad Kelley, presented at the REMADE Circular Economy Tech Summit & Conference, Washington, DC (April 2024).
- Advancing the Circular Economy in Western Michigan – The Kent County Sustainable Business Park Story, Steve Simmons, presented at WasteExpo, Las Vegas, NV (May 2022).
- Circular Economy Case Study: Kent County's Sustainable Business Park, Steve Simmons, Jennifer Porter, and Brad Kelley, presented at the GBB Access! Webinar (May 2022).
- Building Something Sustainable, Ashlea Smith and Steve Faber; published in Waste Today (April 2019).
- Kent County, Michigan's Sustainable Business Park, Steve Simmons, presented at the Ohio By-Product Synergy Network (December 2020).
- The Circular Economy: How Local Governments Can Close the Resource Loop, Corinne Rico, presented at the Illinois Counties Solid Waste Management Association Conference, Oglesby, IL (November 2018)/
- Sustainable Business Parks – A Circular Economy, Chris Lund, presented at the Virginia Recycling Association/SWANA Old Dominion Joint Solid Waste & Recycling Conference, Virginia Beach, VA (May 2018).
- Key Lessons to Draw from the Development of the Prince William Energy Park, Tom Reardon; presented at the North American Waste-to-Energy Conference, Sanibel Island, FL (April 2013).