

**Webinar**

Presented by:  **geocycle**

# Confused About How to Deliver Your Sustainability Targets? We Can Help!





[WWW.GEOCYCLE.COM](http://WWW.GEOCYCLE.COM)

1

**Speaker**

# Jennifer Porter

VICE PRESIDENT  
*GERSHMAN, BRICKNER & BRATTON, INC.*



[WWW.GEOCYCLE.COM](http://WWW.GEOCYCLE.COM)

2



*We believe in a world where discarded materials are used as resources rather than wasted.*

3

## Today's Agenda

○○○

© 2017 ALL RIGHTS RESERVED



- ✓ Introduction
- ✓ Waste Management Practices for Corporations, Cities and Municipalities
- ✓ Recycling/Up-Cycling, Co-Processing, Recovery and Disposal Roles in Sustainable Integrated Solutions
- ✓ Q&A
- ✓ Reference Tools for Decision Makers

4



Our  
Story

○ ○ ○

GBB is an international solid waste management consulting firm that helps public- and private-sector organizations craft practical, customized and technically sound solutions for complex solid waste management challenges.

Since 1980, GBB has been a trusted resource at the forefront of the industry, creating success stories that integrate smart planning with effective management of solid waste services. Our staff enables our clients to do more with less.

5

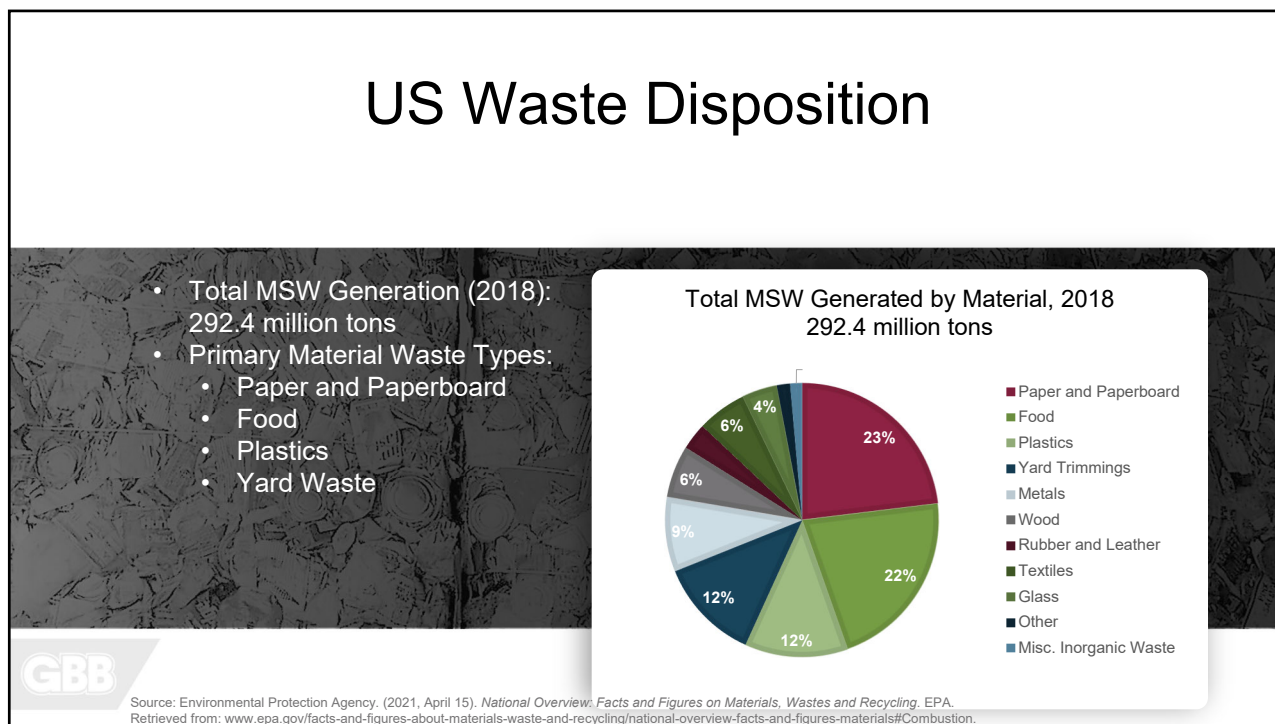


Waste  
Management  
Practices

for corporations, cities and municipalities

○ ○ ○

6



7

## U.S. Solid Waste Infrastructure

Infrastructure	Number
Curbside Recycling Programs	9,000+
Material Recovery Facilities (MRF)	586
Transfer Stations	3,350
Composting	2,300
Mixed Waste Processing Facilities & Hybrid MRFs	70*
Anaerobic Digestion (Stand-alone)	25
WTE	76
Landfills	1,908

### Solid Waste Management Options

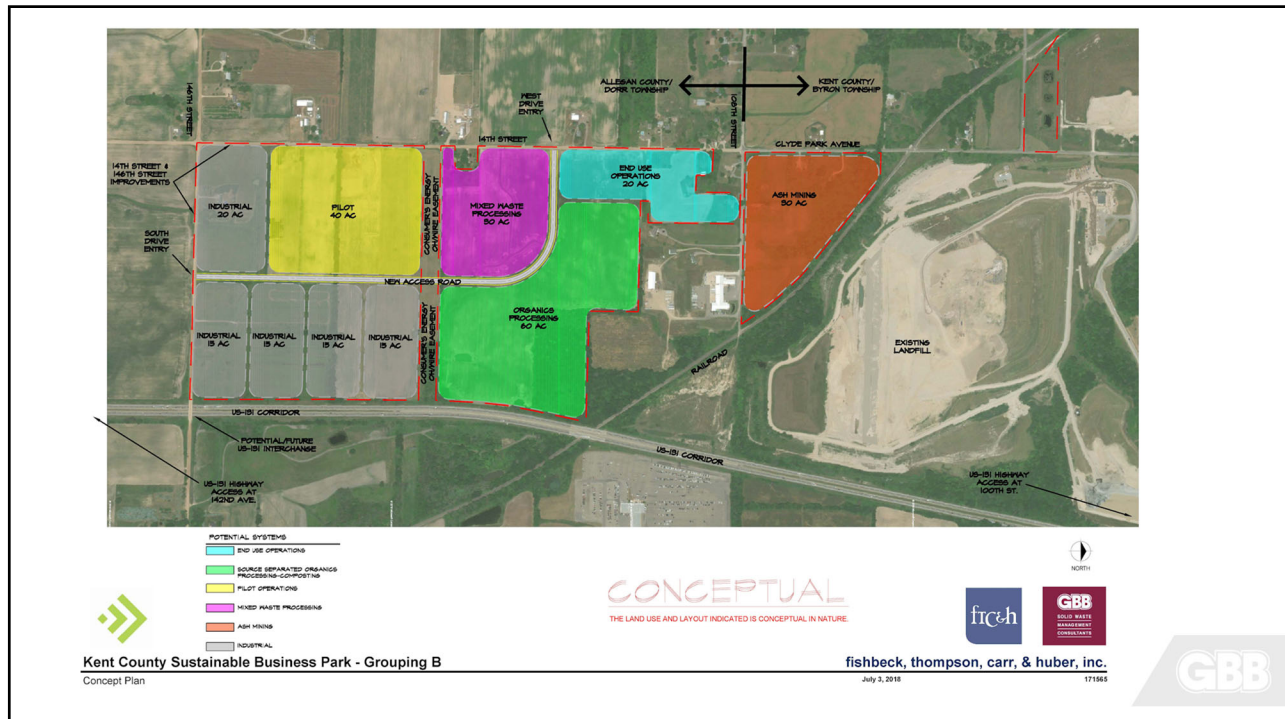
- Solid waste collection
- Recycling
- Organics
- Waste conversion
- Landfilling

\*Excludes facilities that solely produce RDF  
Source: GBB, 2017 from various.

8



9



10

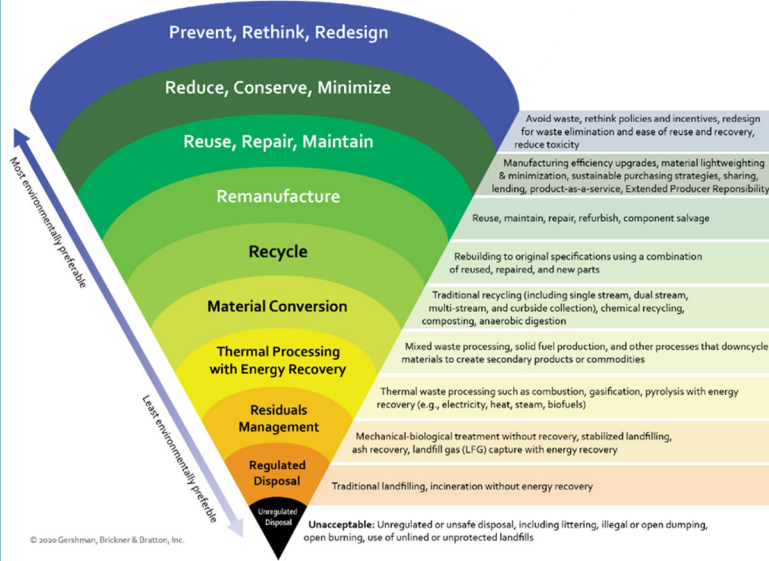
# Sustainable Integrated Planning Components

- Sustainable Business Parks stimulate the paradigm shift towards a Circular Economy
- Circular Economy can be achieved through:
  - Thoughtful design
  - Maintenance
  - Repair
  - Reuse
  - Remanufacturing
  - Refurbishing
  - Recycling of stocks and materials flow



11


# Sustainable Materials Management Hierarchy



The diagram is a funnel-shaped hierarchy with 10 levels, from most environmentally preferable at the top to least at the bottom. Each level includes a title and a brief description of the practices involved.

Level	Practice	Description
10	Prevent, Rethink, Redesign	Avoid waste, rethink policies and incentives, redesign for waste elimination and ease of reuse and recovery, reduce toxicity
9	Reduce, Conserve, Minimize	Manufacturing efficiency upgrades, material lightweighting & minimization, sustainable purchasing strategies, sharing, lending, product-as-a-service, Extended Producer Responsibility
8	Reuse, Repair, Maintain	Reuse, maintain, repair, refurbish, component salvage
7	Remanufacture	Rebuilding to original specifications using a combination of reused, repaired, and new parts
6	Recycle	Traditional recycling (including single stream, dual stream, multi-stream, and curbside collection), chemical recycling, composting, anaerobic digestion
5	Material Conversion	Mixed waste processing, solid fuel production, and other processes that downcycle materials to create secondary products or commodities
4	Thermal Processing with Energy Recovery	Thermal waste processing such as combustion, gasification, pyrolysis with energy recovery (e.g., electricity, heat, steam, biofuels)
3	Residuals Management	Mechanical-biological treatment without recovery, stabilized landfilling, ash recovery, landfill gas (LFG) capture with energy recovery
2	Regulated Disposal	Traditional landfilling, incineration without energy recovery
1	Unregulated Disposal	Unacceptable: Unregulated or unsafe disposal, including littering, illegal or open dumping, open burning, use of unlined or unprotected landfills

© 2020 Gershman, Brickner & Bratton, Inc.



12

## Sustainable Business Park: Maximizing Diversion




<b>Inputs</b>	<b>Processes</b>	<b>Outputs</b>
Recyclables, yard waste, food scraps, construction waste, trash, industrial manufacturing by-products	Mixed waste processing, recycling processing, baling & distribution, digestion/composting	Commodities, soil amendments, refuse-derived fuel, biofuel, energy-from-waste, few finished products like mulch or gravel



13


## Public Involvement



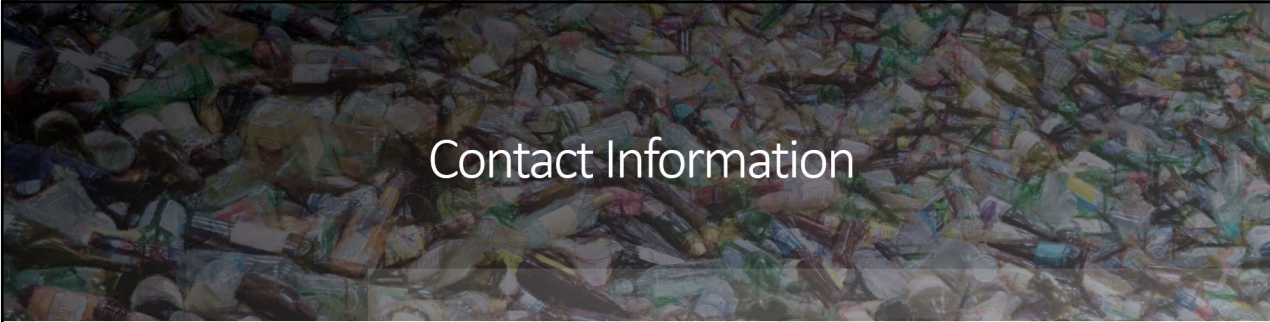
**Stakeholder Review Committee**

Stakeholders contributing to the committee include: Chambers of Commerce, Environmental and NGO communities, Municipal Officials, Non-profit social services organizations, Open public session, Private waste companies, Regional manufacturers.


Steps in the process include: Communicate Department's vision, Build support for change, Identify potential suppliers of waste materials, Identify users of recovered materials, Identify objectionable project elements.



14

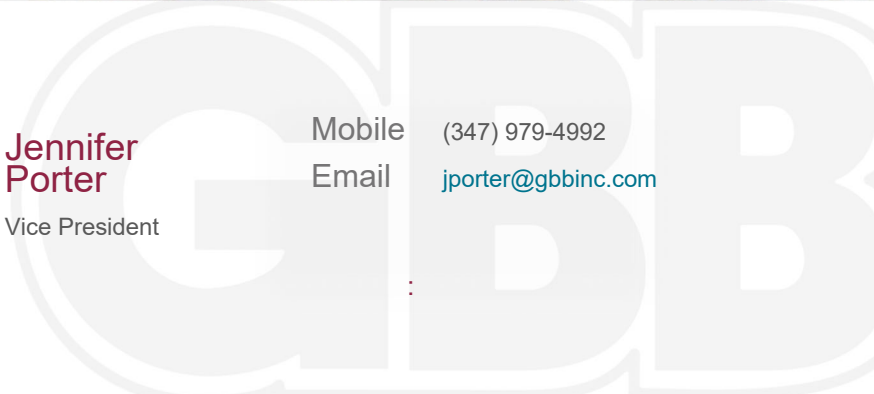


## Contact Information



**Jennifer Porter**  
Vice President


Mobile (347) 979-4992  
Email [jporter@gbbinc.com](mailto:jporter@gbbinc.com)



15

## Reference Tools for Decision Makers

- Managing and Reducing Wastes: A Guide for Commercial Buildings.  
<https://www.epa.gov/smm/managing-and-reducing-wastes-guide-commercial-buildings>
- Tools for Preventing and Diverting Wasted Food.  
<https://www.epa.gov/sustainable-management-food/tools-preventing-and-diverting-wasted-food>
- Assessment Tools for Electronics Stewardship.  
<https://www.epa.gov/smm-electronics/assessment-tools-electronics-stewardship>
- Sustainable Materials Management Tools.  
<https://www.epa.gov/smm/sustainable-materials-management-tools>
- EPA Center for Corporate Climate Leadership.  
<https://www.epa.gov/climateleadership/scope-3-inventory-guidance>
- Gold Standard for the Global Goals.  
<https://www.goldstandard.org/articles/gold-standard-global-goals>



16