



The Road To Zero Landfill

The GMI Landfill Waste Assessment

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Outline

- What is zero-landfill?
 - Definition
- Conducting your first landfill assessment
 - Safety
 - Equipment
- Establishing your baseline
 - How much of what are you throwing out?
- Material opportunities
 - Are you throwing out recyclable materials?
 - Alternative material supply chains (waste material distribution to other companies)
- Acceptable forms of material disposal.
 - Recycling, Composting, Incineration, Alt. supply chain
- Conditions for success.
 - Policies, Employee Engagement, and Supply Chain

What Is Zero Landfill?

- Definition
 - The ability to avoid diverting any excess material resources in a landfill or other non-reclamation waste center.
- Flexibility
 - Zero landfill does not have a standard definition.
 - Not all definitions are the same, but generally have the same theme.
 - Different companies will likely have different guidelines for achieving zero landfill.

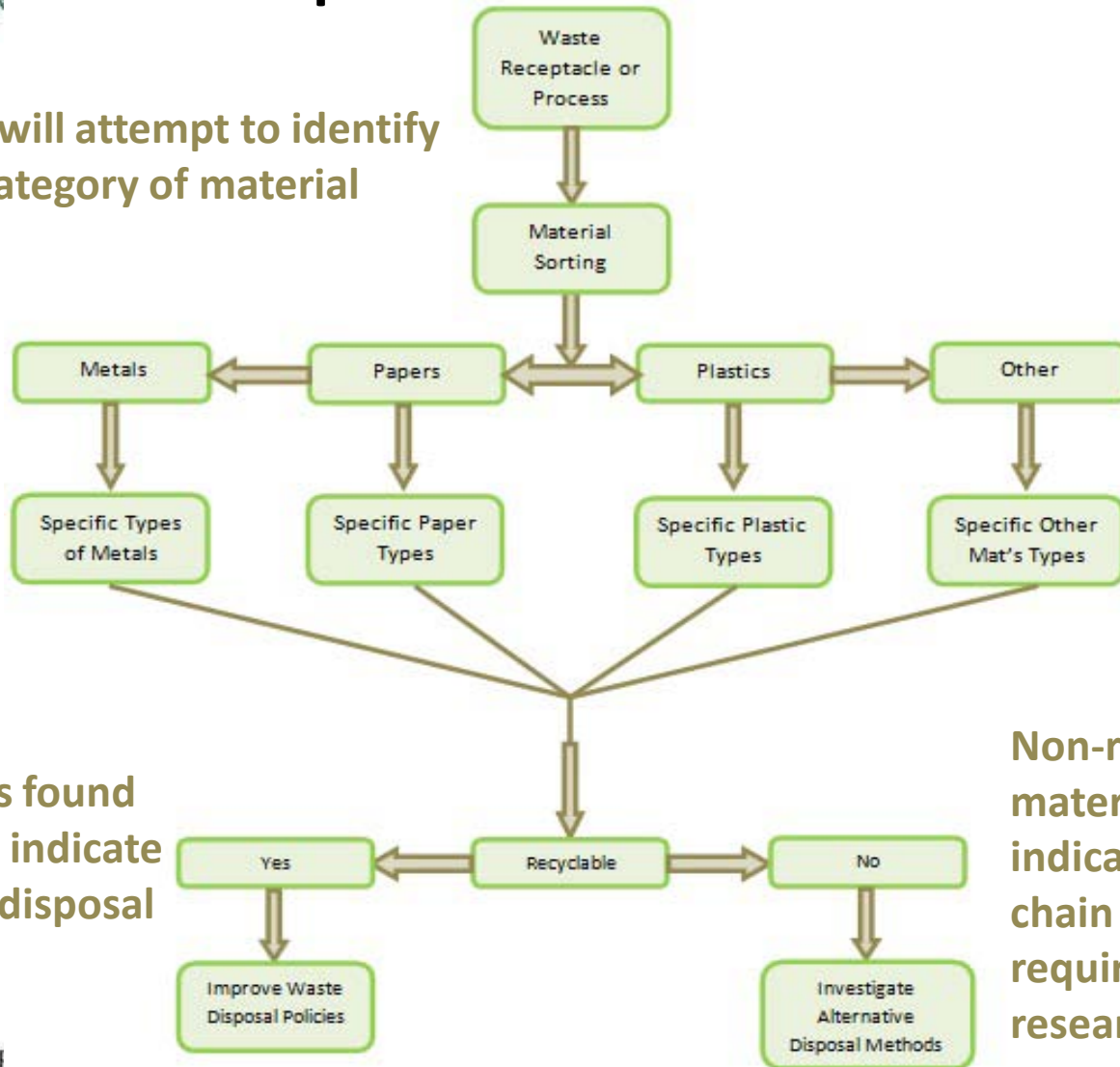


Conducting Your First Landfill Assessment

- Safety
 - Dress appropriately
 - Know what safety material should be considered...
 - Gloves, Foot Protection, Eye Glasses, Dust Mask, Proper Clothing
- Equipment
 - Tarps/Mats: used for sorting.
 - Scales: used for weighing landfill materials.
 - Protective Equipment: used for personal safety.

Dumpster Dive “Flowchart”

The process will attempt to identify the largest category of material offenders.

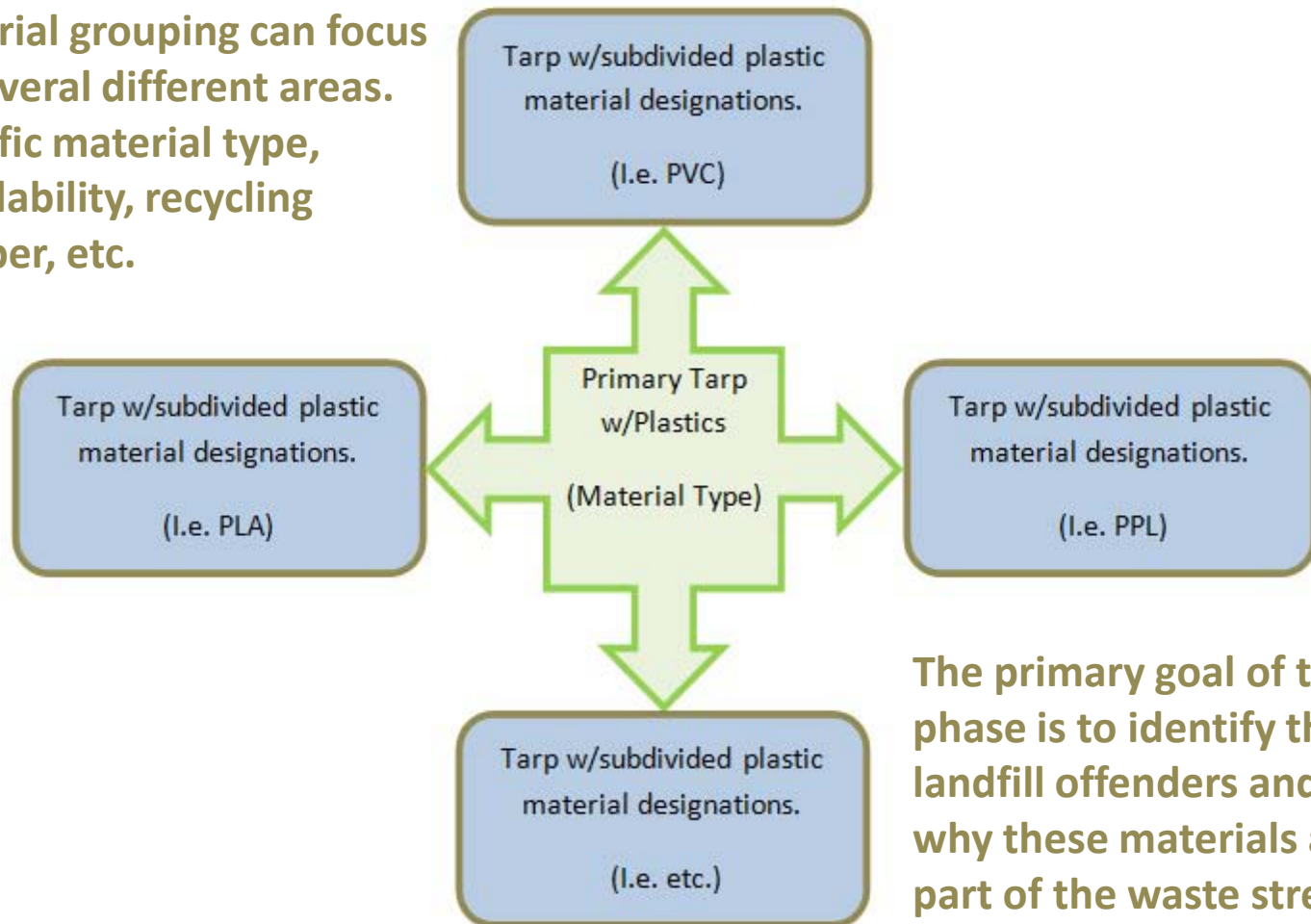


Recyclable materials found in the waste stream indicate a problem in waste disposal practices.

Non-recyclable materials may indicate a supply chain problem or require further research

Material Grouping

Material grouping can focus on several different areas. Specific material type, recyclability, recycling number, etc.



The primary goal of this phase is to identify the top landfill offenders and learn why these materials are a part of the waste stream.



Establishing Your Baseline

- Landfill Baseline
 - The quantity of waste delivered to landfill on an annual basis.
- What do you hope to accomplish?
 - Waste reduction?
 - Material inefficiency?
 - Inefficient processes or departments?
 - All of the above?

Acceptable Forms Of Material Disposal

- Recycling
 - Generally the most common form of waste reclamation.
 - Process by which waste material is broken down and reused to create new, non-virgin material.
- Composting
 - The breaking down of organic material to create enriched fertilizer that can be mixed with soil to grow plants.
- Incineration
 - Breaking down material waste by fire.
 - Considered a “fringe” means of disposal for zero landfill depending on how the ash is disposed of.
- Other



Conditions for Success

- Employee Engagement
 - Burt's Bees uses a Green Derby similar to how some companies may use an Energy Kaizen to help invoke material and energy efficiency and conservation practices.
 - Landfill waste is produced by everyone in an organization at every level. Zero landfill requires a great deal of education on correct disposal practices.



Conditions For Success

- Effective Waste Management Policies
 - Waste reduction education as part of company training.
 - Convenient recycling locations throughout the facility.
 - Commitment to do the right thing, even if it's not popular.
- Employee Participation At All Levels
- A Supply Chain Willing To Work With You
- Patience!



Zero Waste-to-Landfill

Subaru of Indiana

- Toured the Subaru of Indiana facility
 - Listened to their zero-waste policy implementation throughout the facility
 - Support of upper management (ex. President of Subaru garbage picking)
 - Learned how Subaru works with Heritage Interactive Services
 - A by-product management company
 - Collection, Sorting, and Transportation



Zero Waste-to-Landfill

Subaru of Indiana

- Steve Walker
 - Environmental Sustainability Manager at Burt's Bees
 - Talked and showed a video about Burt's Bees journey to Zero Waste to Landfill
 - Green Derby (worker incentives and competition)
 - Color coded disposal bins (making waste management easy)
 - Focus on “reduce” first (both volume & cost)



Zero Waste-to-Landfill

Subaru of Indiana

- Established contact with people and business who have similar problems. Could possibly help us with projects.
- Gave us a better understanding on how we can help companies start reducing waste to landfill
- Allowed us to fine tune our Landfill Waste Assessment paper



Questions?