Overview:
Materials Management & Waste Tracking in Portfolio Manager

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ENERGY STAR for Commercial Buildings

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Background

- **Why are we adding Materials/Waste Tracking?**
    - Many users of Portfolio Manager are responsible for sustainability at their organization, which may include:
        - Energy
        - Water
        - Waste/Materials Management
    - Partners express an interest in leveraging Portfolio Manager to help with all aspects of sustainability
    - In the spirit of One EPA, we want to work closely across media (air, water, materials) to provide a unified platform for commercial buildings
    - To introduce/standardize waste/materials reporting in commercial buildings

- **What is the timeline for this initiative?**
    - Initial Launch: Spring/Summer 2016
    - Web Services: August 2016

Inventory of Materials for Tracking

Waste/Materials	Disposed	Donated/ Reused	Recycled	Composted
Appliances	x	x	x	
Batteries	x		x	
Beverage Containers (aluminum, glass, plastic)	x		x	
Building Materials - Carpet/Carpet Padding	x	x	x	
Building Materials - Cement/Concrete	x	x	x	
Building Materials - Mixed/Other	x	x	x	
Building Materials - Steel	x	x	x	
Building Materials - Wood	x	x	x	
Cardboard/Corrugated Containers	x	x	x	x
Compostable - Mixed/Other	x			x
Electronics	x	x	x	
Fats/Oils/Grease	x		x	
Food/Food Scraps	x	x		x
Furniture	x	x		
Glass	x	x	x	
Grass/Yard Trimmings	x			x
Lamps/Light Bulbs	x			
Mixed Recyclables	x		x	
Office Supplies	x	x		
Pallets	x	x	x	
Paper - Books/Textbooks	x	x	x	
Paper - Copy Paper	x		x	x
Paper - Mixed	x		x	
Plastics - Mixed	x		x	
Plastics - Wrap/Film	x		x	
Regulated Medical Waste	x			
Textiles/Clothing	x	x	x	
Trash	x			
Other	x	x	x	x
Count of materials within each type	*29*	*16*	*21*	*6*

- 29 Material Types

- 4 Methods of Management

- *72 Unique Combinations*

Methods of Data Entry

- **Regularly** – Meters for materials that are picked up on an ongoing basis (e.g. weekly pickup of trash and recycling). There are two basic paths:
  - <u>Measured</u> – Requires a weight or volume for each entry
    - This can be marked as "estimated" if it is a weight that the user estimates on his/her own
  - <u>Container Size</u> – Is based on the size of the container
    - User enters a container size, and specifies the number of times it was emptied and the percent full

- **Intermittently** – Meters for infrequent or 1-time events (e.g. annual donation of electronics, or construction materials)

Volume Conversions

- **Volume conversions**
  - Used to convert volume into weight
  - Important because the main unit for metrics and reporting is tons

- **Materials without conversions**
  - Cannot use "container size" option
  - These materials are required to provide a weight
  - If they need to estimate the weight, there is a way to mark each entry as estimated

Materials without Volume Conversions
Appliances
Batteries
Electronics
Furniture
Lamps/Light Bulbs
Office Supplies
Regulated Medical Waste
Other

Terminology: Materials Management & Waste

- **Materials**
  - The way we think of this at EPA
  - When something is donated or recycled, it is not "wasted"
  - In the context of commercial buildings, can have other connotations
    - Environmental attributes of materials like wood and carpet used in construction or interior design

- **Waste**
  - More common terminology among building owners and operators when referring to materials management streams

- **Recommended Terminology in Portfolio Manager**
  - Waste and Materials – When there is a high profile title and we want to make sure to use the word materials
  - Waste/Material – When we are trying to say Waste *or* Materials and we need a short/scan-able word
  - Waste – When a short single word is needed to avoid long/awkward phrases:
    - e.g. Current Waste Date

Basic Terminology

- **Waste Material Type** – The 29 different categories of materials that you can track (e.g. trash, mixed recyclables, batteries, food scraps, etc.)

- **Waste Management Method** – One of 4 options for how you manage your waste and materials
  – Disposed
  – Composted
  – Recycled
  – Donated/Reused

- **Disposed Waste Destination** – One of 4 options for where your disposed waste (e.g. trash) goes:
  – Landfill
  – Incineration
  – Waste to Energy *(refers to incineration for energy recovery, not to landfill with gas recovery)*
  – Other/Unknown

- **Waste Diversion** – the sum of the Composted, Recycled, and Donated/Reused Materials (i.e. everything that is not disposed)