

WASTE AUDIT MANUAL

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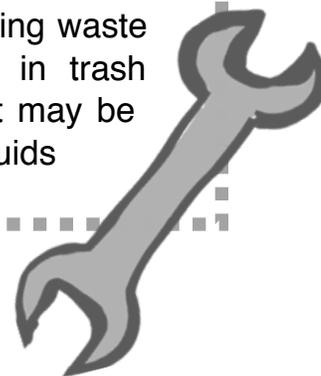
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# WEIGHT BASED ASSESSMENTS

The main component of this methodology is weighing the waste. It can be as simple as weighing all of the material in a particular waste receptacle, for example, by emptying out a dumpster bag by bag and weighing each bag to calculate a collective weight for the contents of the dumpster. There are cases where it is appropriate or necessary to calculate waste weight by a visual “guesstimate”, though this approach has a higher potential for error. This involves finding out the weight of the dumpster contents, visually estimating the proportions of each material type, and extrapolating those proportions to find the individual material category weights. Visual weight guesstimates should only be used when the individual material types of a trash receptacle are at the point where they cannot realistically be weighed - i.e. contents are wet, resulting in a “stew” of materials, or your access to an industrial scale is limited.

A weight-based assessment is an opportunity to assess all of the different material types that enter your campus’s waste stream, and their concomitant proportions. This involves deciding on waste stream categories to accommodate for all of the materials that you expect to find during your audit. You will use these categories when you physically separate out the contents of the dumpster.

A luggage weight can be a useful tool for weighing waste materials in trash bags that may be leaking fluids



It is important to note how the nature of the data that you collect is different for a volume-based assessment versus a weight-based one.



For example, a relatively light-weight material such as Styrofoam takes up a large amount of space relative to its weight. Keeping this type of information in mind is important in assessing the efficiency of your institution's waste management operations - lightweight items that take up more space in a waste receptacle requires more frequent services and more trips to the landfill. Depending on the waste infrastructure of your local municipality, this may result in higher costs to dump your trash, as some operations charge by volume dumped, while others charge by weight.

## << CONSIDERING COSTS >>

It is important to plan ahead for the cost of your waste audit. Depending on your situation you will want to account for all costs that will be changing hands throughout the project. Be sure to consider :

- Labor costs for you, your students, or hired help
- Things to keep your workers happy and healthy (i.e. food, water, safety equipment)
- Compensation from your school, grants, or fundraising
- Equipment and supply costs

*For a sample budget drafted up by PLAN, check out your campus's "Waste Audit" folder in Google Drive.*



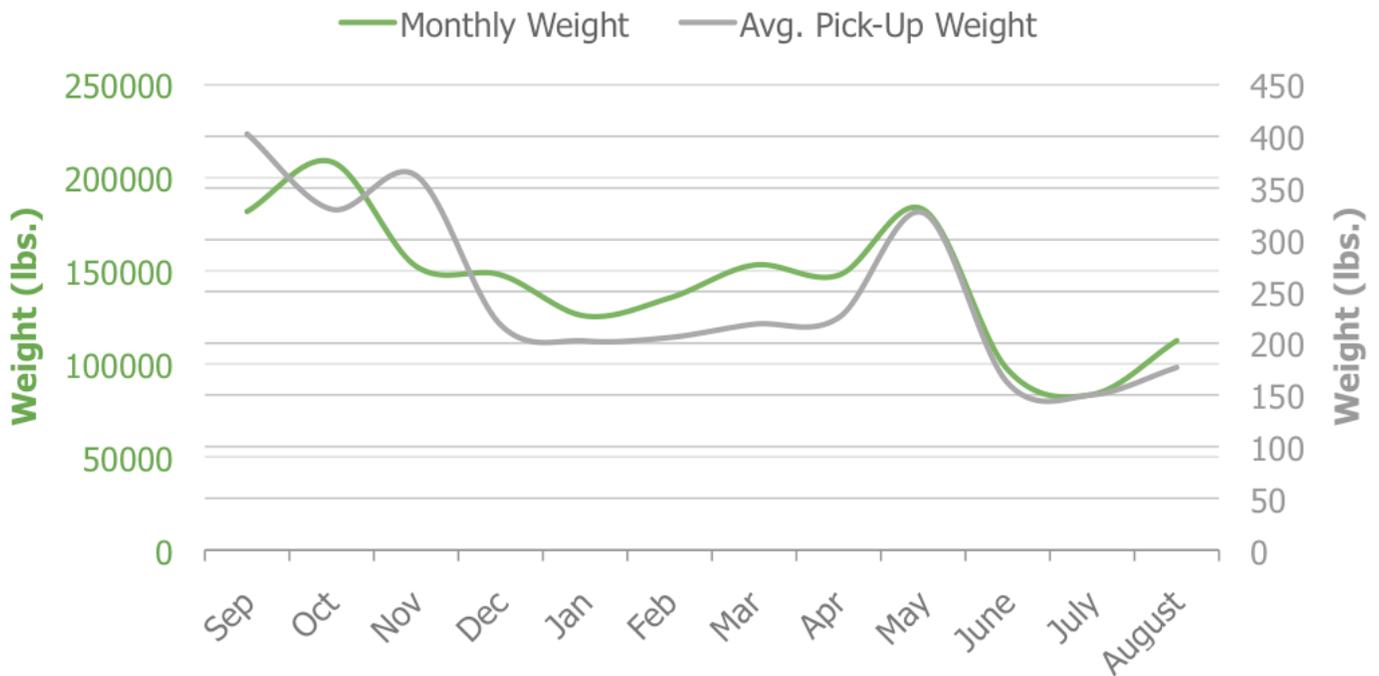
# School Year

The majority of waste audits will be most useful when conducted during regular school year operations. Likewise, hauler data for this time period should be relatively consistent. It is often beneficial to track unusual pickup-weight fluctuations with events on campus, campus tours, or visits from non-campus residents.

Examples of unusual things that can affect waste generation during the school year include:

- Weather: snow and rainwater add weight to dumpsters
- Winter sand tracked indoors and swept up by housekeeping
- Renovation Projects
- Campus-wide events

## UNH Hauler Rates



Tracking reported pick-up weights over time allowed UNH to identify periods when the most waste was generated vs. when haulers were collecting more often than was necessary.

# Case Study

In a Zero Waste Pilot of UCSC's McHenry Library, the need to reevaluate bin size surfaced early on in the project. Zero Waste stations consisting of equally sized bins for paper, container recycling, compost, and trash were placed throughout the building. Sustainability Office student employees conducted weekly visual audits of the stations and found that the compost bin was continually overflowing, mostly with compostable service-ware from the library's cafe. Students deduced that compost was the largest waste stream in McHenry Library, and that this stream's bin should have been double the size of other standard bins.

