



A COLLABORATIVE NETWORK
sustainablejc.org

Personal Trash Inventory (PTI)

Action Item List

1. Find out what is allowed in trash, composting, and recycling
2. Preparation for Collecting Recyclables and Trash
3. Collect a week's worth of trash and recycling
4. Sort trash into piles
 1. Recyclable paper
 2. Cardboard
 3. Glass metal and recyclable plastic
 4. Not recyclable, not allowed in trash.
 5. Compostable
 6. Trash Stream
5. Analyze the results
6. Can we do better?
7. Take Photos & Short Video Chats for Social Media Posts of your piles, offering comments on your experience! [Add your Photos & Videos here](#)

Introduction



The United States has a major trash problem. The Personal Trash Inventory (PTI) examines the trash that passes through your home on its way to its final destination. This is the municipal solid waste stream. In 2017 the United States generated almost 270 million tonnes of trash in the municipal solid waste stream (MSW).¹ Over 50% of this trash ended up in landfills and just about 25% was recycled. The rest was composted or incinerated.

Doing a PTI is the first step in reducing the trash problem. The approach taken here is pragmatic: let's learn as we go. At a minimum we should be a responsible municipal citizen. Taking a trash inventory will help you understand and meet the municipal requirements. It can also uncover a series of small steps that will reduce the amount of trash you produce. It might even save you some money.

The keys to reduce the amount of trash can be summarized as the "R"s of trash: refuse, reduce, reuse, repair, repurpose, and recycle. Refuse as in, don't purchase environmentally harmful products. Reduce your consumption of products that are environmentally harmful. Reuse, avoid single use products as much as you can. Repair things that are broken rather than throw them away. Repurpose the items that no longer serve their original purpose. And, as a last resort, recycle those items that remain.

The level of engagement depends on you. Some changes are both easy and can save money. Others might take significant life style changes. Recycling correctly is a relatively easy first step.

¹ <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials>, 2020 Accessed May 22, 2020

The responsible citizen that recycles correctly

Step 1: What does my municipality allow in the trash, composting, and recycling?

Most municipalities have rules on what you are allowed to throw away in the trash. It is not unusual for municipalities to have places, perhaps at specific times, where you can take items that are not allowed in the trash. Examples of things not usually allowed in the trash are rechargeable batteries, electronic trash, etc. Find these rules for your municipality. Here is the link for Jersey City, NJ.²

Not all plastics can be recycled. In Jersey City, at present, only number 1 and 2 plastics can be recycled. There are often limits on the metals that can be recycled, for instance aluminum foil may not be accepted.

Organic matter naturally decomposes and under the right conditions can be safely turned into a rich soil for growing things. This process is called composting. Some individuals compost their organic waste themselves to provide fertilizer for their gardens. In some locations the organic ingredients are collected and processed on a larger scale. Here is a [link to composting in Jersey City](#).³ Please be careful to follow the guidelines given.

Step 2: Preparing to collect the trash

You will be collecting one week of trash and one week of recycling. Prepare a spot where you can collect a full week's worth of both. I would recommend at this stage you collect all plastic, glass, metal, paper, and cardboard separately from the other trash. So, you should have 4 containers that can hold: a week's worth of paper & cardboard, a week's worth of glass-metal-plastic, a week's worth of compostable material, and a week's worth of the rest of the trash (you might want to use two containers for this, see below). If your recycle pick up day is different from your trash pick-up day then it is recommended you start the two streams separately, right after your trash/recycling is picked up.

Step 3: Collect what you throw away

Collect all your trash for a week. Our lives are governed by a weekly cycle, so we need to include the full week. We are gathering data for later analysis so don't be critical of yourself or over analyze while you data gather. Here are some suggestions that will make what follows easier.

- 1) Collect any paper, cardboard, envelopes, junk mail, etc. into a separate container.
- 2) Thoroughly rinse out any food containers (bottles, cans, plastic bottles, milk cartons, etc) so that they do not attract unwanted visitors to your house, or generate undesirable odors. Put these in the appropriate bin. You can choose to put all of this into the glass-metal-plastic container for now and separate out what is and what is not recyclable later.

² <https://jerseycitynj.gov/cms/one.aspx?pagelid=7221869> This is the site for Jersey City,

³ Here is the link as well <https://jcmakeitgreen.org/composting/>

- 3) Put any compostable material into a separate container, being careful to follow the guidelines as to what is and what is not compostable.
- 4) If it isn't recyclable, compostable, or not allowed in the trash, it goes in the trash bin. I would recommend that where possible you do not include any food wrappers in the trash stream yet. Rather wash them thoroughly and put them in with the recyclables. Later you can then examine how much of this material ends up in a landfill. This is not always possible. The blood soaked pad under the chicken needs to go into the trash stream.
- 5) Did something break this week that you want to throw away? Is there something you no longer want and are considering throwing it out (or into the back of a closet)? This includes clothes, shoes, socks, pens? Put this into a pile.
- 6) Start your inventory the day after recycling collection. Choose the size of the containers larger than you think you need.

Just for fun you might want to take a picture of your set up before you begin and your trash pile at the end of the week.



Step 4: Preliminary Analysis: Sorting the trash.

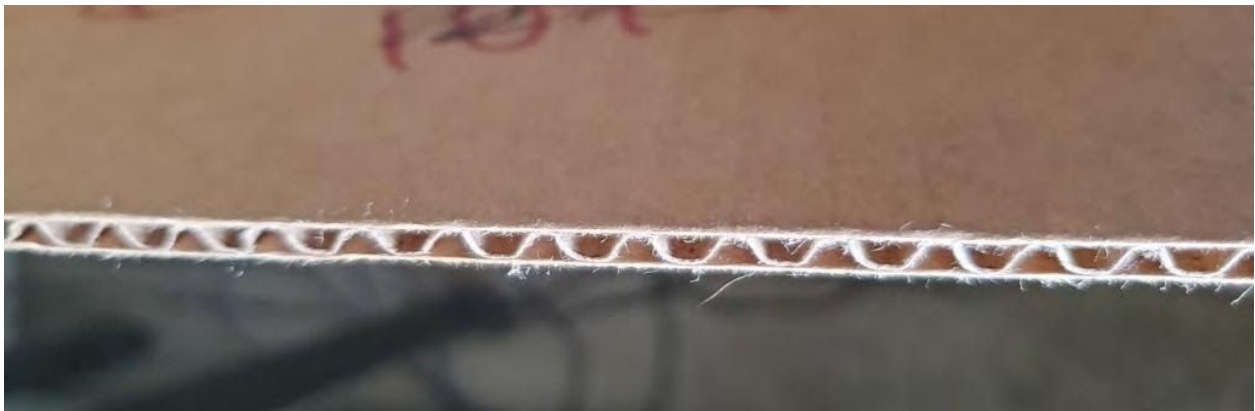
You have been collecting the trash and the recycling and tomorrow is recycling day. Time to do a quick inventory of your trash/recycling.

In step 1 you learned what is required by your municipality. In step 3 you collected your trash. In step 4 we sort the trash into the “streams” required by the municipality. I will be using Jersey City, NJ’s trash program as an example. If you live elsewhere you might have to make modifications.

Jersey City has one stream that picks up glass, plastic and metal and another stream that picks up paper and cardboard. Therefore we need to sort the trash into five piles. Pile 1 contains the corrugated cardboard. Pile two contains the paper. Pile three contains the glass, plastic and metal stream. The fourth pile contains those items that do not go into either the trash or recycling stream. The fifth pile contains the traditional trash, which will go to the landfill or incinerator.

Paper and Cardboard streams; piles 1 and 2.

Separate the corrugated cardboard from the other paper. Corrugated cardboard has smooth outer layers with an inner layer that goes back and forth creating spaces within. Flatten the cardboard and put all the corrugated cardboard together. This can be bound together with twine.



Take the non-corrugated card stock and paper together. If the envelope has plastic in it, you can't put the plastic into the paper stream. If there are staples in the paper, they should be removed. Put this together into another recycle pile.

Glass, metal, plastic pile: Pile 3

Pull out all the glass from the trash pile, make sure it is clean, remove the cap and add it to this stream. If the cap is metal it can be added, if it is plastic, put it back in the trash pile (for now).

Pull out all metal cans from the trash pile, make sure they are clean, and add them to the glass metal plastic pile. In Jersey City there are metal items that are not recyclable.

- Leave the metal foil in the trash pile, even if it isn't contaminated by food.
- Metal utensils (like forks, knives, etc) are not recyclable.
- Coat hangers are not recyclable. Paint cans are not recyclable
- The old metal motor in the basement is not recyclable...

Basically food cans are recyclable.

Now start pulling out all plastic items. Look for the small triangle with a small number in it. Unfortunately some manufacturers make it small and difficult to read. The number identifies the plastic "resin", the base material of the plastic. In Jersey City only # 1 and #2 are recyclable. Other municipalities may add additional resins to their recyclables. Only add to the recyclable pile those items

for which you can find the triangle with the 1 or 2 within it. No other items are recyclable in Jersey City. No triangle, no recycling. Even if the plastic tableware you bought claims to be recyclable, it isn't; at least in Jersey City.



These are all number 1 plastics and all labeled with a small 1 within a triangle.

Not recyclable or trash: pile 4

Look through the trash for items that are not allowed in the waste stream. Examples are rechargeable batteries, tires, refrigerators, etc. ⁴ Jersey City has special instructions for some items (see the link).

Compostable: Pile 5

This is the material that you can deliver to the composting pick up sites (or compost yourself).

What left: The actual trash: Pile 6

What is left after this sorting is what belongs in the municipal trash.

The first time through this might take you awhile, especially looking for the triangle markers on the plastic. Sometimes it seems that companies go out of their way to make the triangles small and difficult to find. I admit to using a magnifying glass at times.

You have now separated the trash into 6 piles, cardboard, paper, glass-plastic-metal, not recyclable or trash, compostable, and trash. This is what the city requires of you. The recycling can now go out!

⁴ (you may have to copy the link below directly into you're your browser, auto redirect doesn't seem to always work with this file)

https://jerseycitynj.gov/UserFiles/Servers/Server_6189660/Image/City%20Hall/Depart.%20of%20Public%20Works/Sanitation/WasteGUIDELINES.pdf



This picture contains items that are not recyclable but are allowed in the trash. These items will either end up in a landfill or be incinerated (burnt up). Paper containers that have a wax coating on the inside are generally not recyclable. However, there are other possible uses for these containers.

Step 5: Analyze the results

Now return to the trash pile. This is what is either headed to a landfill or being incinerated. Now is an opportunity to take stock of the trash you generate.

The average amount of trash generated per person is 4.51 pound per person per day. That's 31.5 pounds per person per week, to keep the math simple let's call it 32 pounds. Typically this is about ¼ paper (8 pounds), ¼ glass-plastic-metal (8 pounds), 15% food (about 5 pounds), 20% other stuff (like rubber gloves, broken toys, etc. about 6 pounds). These don't add up to 100% because there is also a seasonal item that may or may not apply to you 13% of the MSW is yard trimmings.⁵ If you have a scale, you can see how you stack up vs the national average. If you only have a bathroom scale you can weigh yourself while holding the trash, and then weigh yourself without the trash. The difference is the weight of the trash.

How does your trash compare with the national averages?

- Weekly paper stream 8 pounds per person (paper and cardboard)
- Weekly glass-metal-plastic: 8 pounds per person (including non-recyclable plastics)
- Food and household: 11 pounds per person.

Step 6: Can we do better?

You might have found that you were putting non-recyclable materials into the recyclable stream. This contaminates the recyclable stream. The recycler has to remove these items from the stream before they can be processed. This has two effects. First it costs extra dollars. Dollars that raise the cost the city has to pay the recycler. That's right we pay to have the material recycled. That money of course

⁵ <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials>

comes from taxes. Even if you rent, part of your rent is going to taxes. Contaminating the recycling stream costs you money. The second effect is that contaminated material is not recycled but ends up in the landfill anyway.

The city also has to pay to dispose of your trash, either in a landfill, or in an incinerator. The more trash the more tax dollars are spent. In addition landfills are sources of methane, a powerful greenhouse gas that contributes to climate change. Landfills account for about 15% of the United States methane emissions.⁶

The best way of eliminating these effects is to reduce the amount of trash you generate. So now it the time to look through your trash and make a note of:

- 1) Is there anything in the trash that might have another use? (Repurposing)
- 2) Is there anything in the trash that is broke that you can fix, avoiding purchasing a replacement (repair)
- 3) Is there anything in the trash that was only used once, but for which you could purchase something next time that can be used many times? (Reuse)
- 4) Approximately 30% of the food produced in the United States is thrown away.⁷ This included food thrown away by supermarkets, restaurants, as well as individuals. When food is put in the landfill, it will decay producing methane. How much food was in your trash? Make a note of the reason. Did you simply not use it in time so it spoiled? When you purchased it, was it already near the point of spoilage? This is money spent that is squandered, generating trash that costs money to dispose, that creates methane that contributes to climate change, and raises the price of food by creating excess demand. In an era when many people suffer from food insecurity, it is a needed resource that shouldn't be squandered. Only purchasing what is needed is an example of reducing.
- 5) What is the source of plastics that cannot be recycled? Is there a competing product that comes in a recyclable container? Perhaps it is something you can simply do without. Not purchasing these items is an example of refusing.

We challenge you to choose one of these categories and see if you can reduce the trash it generates in the next month. Perhaps you can repeat the exercise then and see how well you did.

Some examples

What can you Repurpose?

You can repurpose clothing by donating the clothing you no longer need.

You can repurpose clothing by creating rags you use in the workshop.

⁶ <https://www.epa.gov/lmop/basic-information-about-landfill-gas>. Accessed May 22, 2020.

⁷ <https://www.usda.gov/foodwaste/faqs>. Accessed May 22, 2020/

You can repurpose envelopes by using them as scrap paper.

You can repurpose paper printed on one side by turning it into note pads.

Repurpose that sock with a hole in it by using it to shine your shoes.

Becoming a repair technician: Fix what is broken

Do you have a sewing kit? Learn how to darn socks or a simple rip.

Is something broken? There may be a youtube video on how to repair it.

Reuse: avoiding single use

We live in a throw away economy. Companies make more money if you throw their product away and by another one. Some products are inherently single use; you can only eat a carrot once. Some products are designed to be used once. That plastic bottle of soda can only be used once. True you might use it as a water bottle (repurpose), but how many water bottles do you need? You can purchase a reusable water bottle and stop purchasing bottled water all together. Your PTI will help reveal what you are purchasing that is single use.

Reduce your consumption of products that contribute to your trash stream.

Going through the supermarket, do you have a choice between coffee packaged in a non-recyclable plastic container, or one in a paper bag, or a metal container?

Refuse to purchase some products that are not recyclable

Depending on the purchasing options around you, this may or may not be possible. Such lifestyle changes can be difficult. But difficult is not impossible.

Helpful Links

If you need a scale you might want to consider buying something like [this one from Amazon](#).

We would love to hear your results; you can report the results of your Personal Trash Inventory on this [Google Form](#)

We would be really grateful if you would record [Photos and Videos of your Inventory here](#)

There is an app that might help you in your efforts: [Recycle Coach \(click here for link\)](#)

Here is [the Privacy Policy](#) associated with all SJC's surveys.