Circular Economy
“An economy that is restorative by design, and which aims to keep products, components and materials at their highest utility and value at all times, distinguishing between technical and biological cycles.” definition from Ellen MacArthur Foundation

Closed Loop Fund
A fund that gives money to recycling companies and municipalities for recycling infrastructure. Funders include Walmart, Walmart Foundation, Coca-Cola, Goldman Sachs, Unilever, 3M, PepsiCo, and Johnson & Johnson. See also the Recycling Partnership.

Contamination
Occurs when non-recyclable items are mixed in with recyclables items. Contaminates can be anything from dirty diapers toilet seats to motor parts to dead animals. Cross contamination is when unlike recyclables end up in the same bale. An example would be smashed plastic or metal in a paper bale. Single stream causes cross contamination issues.

Cost of recycling
Hopefully your community did not pay an out of town consultant big bucks to use this equation. Cost of recycling = total costs (that’s your trucks, fuel, maintenance, employee salaries, workers comp, etc.) divided by recyclables collected. Just because an item was collected at the curb, does not mean it got recycled, made into a new product that re-enters the market place. This is why transparency is very, very important. You need to know how much of what was collected actually got recycled, in order to get an accurate cost of recycling.

Curb-sort collection
When the items you place in your recycle bin get sorted at the curb into a truck that is segregated by like-material, paper with paper, glass with glass, aluminum with aluminum, cardboard with cardboard. Curb-sort provides re-manufacturers, (companies making new products), with clean usable feedstock. Contamination is almost zero as each bin is checked before items go in the truck. When workers leave contaminants in the recycle bin it sends a message to citizens about what cannot be recycled in their community.

Diversion
According to American Heritage Dictionary, diversion means “to turn aside from a course or direction”. Unfortunately, that’s exactly what’s happened with recycling, diverted thinking. Recycling was originally the last of the Three Rs: Reduce; Reuse; lastly Recycle. Recycling has become so politicized, corporatized, and compromised that citizens are now led to believe over-consumption is okay as long as you recycle. The reality is our planet cannot sustain 8-10 billion humans consuming and discarding at the rate we do in the United States. As resources become more scarce, violence will increase in all nations.
Down-cycle
means an item can be recycled only once. A water bottle made into a fleece jacket is an example of down-cycling. Once the jacket is worn out it’s destined for a landfill or incinerator. Recycling means the item is going to have a new life in the marketplace several times. Down-cycling can be used as a marketing gimmick to justify disposable products. If kept clean during the collection process (high grade white) paper can be recycled about 7 times. A glass bottle can be rewashed and reused, OR recycled an infinite number of times. Obviously purchasing products that can be recycled rather than down-cycled is best.

End-users
Also called re-manufacturers, end-users are the companies that make new products from our recyclables. Examples of end-users: a metal company that makes new aluminum cans from old ones; or a glass plant that makes new glass bottles from old ones. End-users did not instigate single stream, major garbage hauling companies did. That is critical to remember.

Extended Producer Responsibility (EPR)
from The Guardian, “Extended producer responsibility (EPR) is a form of product stewardship. Under EPR, manufacturers and brand owners (known as producers) are responsible for the products they make or sell, and any associated packaging, when they become waste.”

Green Fence/National Sword/Blue Sky
Terms for the Chinese ban of American’s highly contaminated recycling. America’s recycle stream began to resemble garbage with the advent of single stream collection. Single stream is the collection method whereby recyclables are handled in the same way as garbage, all different kinds of recyclables are mixed together into a single compartment truck.

Greenwash
from the Cambridge English Dictionary “an attempt to make people believe that your company is doing more to protect the environment than it really is”. Greenwashing is not limited to companies. This is why transparency is very important in all “sustainable” or recycling projects.

Haulers
Garbage haulers saw an opportunity (in the 1990s) to regain market share (recyclables) lost to volunteers who, in the 1970s and 80s, began separating paper, plastic, and metals from their household garbage. Recycling reduced the volume the garbage haulers were collecting, thus reducing their profit margin. The recycling volunteers, overwhelmed with success, turned their programs over to municipalities. Municipalities did not want to fool with separating materials and thus the door was open for the garbage haulers to regain the lost market share as they took over municipal recycling programs. 2001 saw the advent of major garbage haulers promoting single stream collection.

Material Recovery Facility (MRF)
Materials Recovery Facility, a facility that sorts and bales recyclables. Recyclables are called feedstock. Feedstock is sold to re-manufacturers/end-users to make new products.
Clean MRF the recyclables come into the facility already segregated, plastic with plastic, glass with glass, metals with metals, thus contamination is in low single digits.
Dirty MRF the recyclables are literally mixed in with garbage. NO JOKE, there are actually programs where citizens leave the recyclables mixed in with garbage. The recyclables supposedly get separated from the garbage at the MRF. Try visiting one of
these facilities unannounced. Unannounced visits allow you to see what is really going on in any facility. Unannounced visits are the key to transparency. **Single Stream MRF** tossing unlike recyclables all together in a single compartment truck. The recyclables are all mixed up together and have to be “separated”. Food and liquids cause stuff to stick together, creating an inseparable mess. Paper is contaminated by wayward debris, motor oil, urine, juices, food, etc. Single Stream was pushed by the garbage hauling industry, an industry financially dependent on our continual generation of waste. Single stream is similar to a dirty MRF. **JUNO MRF** a project by the Koch Brothers’ owned company Georgia Pacific (GP). It will be like a dirty MRF in that food-coated paper products from cafeterias, stadiums, etc. will be collected and recycled into new paper products. GP plans to separate and sell the plastic and metals that are mixed in with the food coated papers. GP is privately owned, so transparency will be even more problematic than it is now with major garbage haulers. This is very, very important to note.

**Monopoly**

According to American Heritage Dictionary, monopoly means “exclusive control or ownership of a commodity or service.” Communities with a conservation ethic see their recyclables as resources, and they value those assets enough to maintain control of them and keep them sorted and clean. They do not allow another entity total control of their recyclable assets. If you allow an entity total control of your recyclables, you can expect to see continually rising costs for recycling. Smart communities will pass a recycling transparency ordinance.

**Multi-sort recycling**

Multi-stream is a curbside collection method in which citizens place recyclables into segregated bins or a single small 18-gallon bin. A recycling employee sorts the recyclables, at your curb, into multi-compartment truck, of like-only recyclables, glass with glass, paper with paper, aluminum with aluminum. Multi-sort is the opposite of single stream, which mixes unlike materials all together in a single compartment truck. Multi-sort results in almost no contamination. End-users love multi-sort, as it provides them with clean feedstock.

**Participation rates**

The number or percentage of citizens that set a recycle bin on the curb. You can have high participation rates simply because high numbers of people put a recycle bin at the curb. So what, if the contents are cat feces, food waste, broken glass, engine parts, dead animals, adult as well as baby diapers. Don’t be fooled by high participation rates. Every community needs a recycling transparency ordinance.

**Pre-consumer**

Pre-consumer means before the consumer even gets a product. Pre-consumer waste is waste that occurs in the original production of a product, like trimmings of paper cut to size before being packaged. “Recycled” paper did not come from a recycle bin, it came from scrap paper on the floor of the mill. That scrap paper was made from tree pulp. It’s swept off the floor and tossed back in the blender and called “recycled”.

**Post-consumer**

Post-consumer recycled paper is that which was used by the consumer, then placed in a recycle bin. That paper, if uncontaminated is baled and sent to a paper mill to be made into new paper. Before single stream you could find lots of sources of post-consumer paper. You don’t see
much post-consumer paper these days, because single stream has contaminated our paper stream so badly. If paper is contaminated like it is in single stream programs, it could be down-cycled into fuel pellets. See the definition of **Down-cycling**. If you want to save trees, energy, and water resources, then keep your paper separate and clean in your recycling collection program.

**Processing**

is when our recyclables get baled for shipping. If your community is (unfortunately) using single stream collection, then processing means the attempt to separate the varied recyclables and bale them. Lots of secondary contamination happens in single stream facilities, that means the wrong stuff ends up in bales. The Chinese are fed up with our secondary contamination.

**Recycling is NOT** incineration or making fuel pellets or using glass as daily landfill cover. These are all examples of DOWNcycling. Recycling is when a collected material is made into something new and re-enters the economic loop multiple times. Don’t be fooled, if you care about preserving restoring planet Earth for future generations!

**Recycling Partnership**

The Recycling Partnership gives grants for recycling programs. A few of their funding partners include Coca Cola, Exxon Mobile, Keurig Dr. Pepper, Pepsico, Amazon, American Chemical Council, Waste Management, Inc., and DOW.

**Recycling rate**

EPA's recycling measurement method calculates a recycling rate that requires dividing the total amount of Municipal Solid Waste (MSW) recycled in a given year by the total amount of MSW generated. This is tricky because of the lack of transparency in most programs. Every community needs a recycling transparency ordinance.

**Recyclable Resource Stream**

The recyclables in your community: cardboard, paper, plastic, metals, glass, etc., make up your recyclable resource stream. They are valuable assets if kept clean, sorted, and uncontaminated.

**Re-manufacturers (see called End-users)**

The companies that make new products from our recyclables. Examples include a glass company that makes new bottles from old ones, a “lumber” company that makes plastic lumber from your laundry detergent containers, an egg carton company that uses paper pulp to make egg cartons, a metal company that makes new aluminum cans from old ones. End-users were not the instigators of single stream, major garbage hauling companies were. This is critical to remember. **Without end-users /re-manufacturers there is no recycling.**

**Roll-Out carts**

Recycling bins on wheels. They are often 90-96 gallons and used in single stream collection programs. They look just like garbage cans. Hmm.

**Single Stream Collection**

When unlike recyclables are tossed all together in a **single compartment** truck. Single stream collection was initiated and promoted by major garbage hauling companies as a way to regain market share lost to volunteers who started recycling programs in an effort to keep paper,
plastic, glass, and metals out of landfills and incinerators, and instead reintroduce them multiple times in the market place.

**Standardized**

Merriam Webster definition... “to bring about conformity with a standard especially in order to assure consistency and regularity”. Remember “No Child Left Behind”? So, how did standardization work out for students and teachers? Garbage haulers pushed conformity with single stream. If you’ve woken up to the problems created by single stream, such as contamination, lack of transparency, trashing foreign countries lacking in labor and environmental laws, and higher recycling fees for U.S. citizens, just wait ‘til recycling is “standardized” and a handful of corporations have total control our recyclable resources.

**The Three Rs**

Reduce, Reuse, Recycle, in that order. The order has flipped to Recycle, then Reduce, Reuse. This is a marketing gimmick to convince U.S. citizens that if we recycle it’s okay to consume as much as we want. Planet Earth cannot sustain 8-10 billion people consuming and discarding at the rate we do in the U.S. It’s only natural that people living in developing countries want to live with our conveniences. As resource shortages increase so will the level of violence worldwide.

**Zero Waste,**

Back in the previous century, I served on the Tennessee Governor’s Round Table, creating a state solid waste plan. This was before cell phones so we actually looked at and talked to one another, activists, retailers, environmentalists, government employees, politicians. When I complained to Eastman Kodak about their new disposable cameras. They said to me, “As long as you buy it, we will make it.”

*As consumers we have the power and responsibility to restore this planet, way more power than we are currently using. If we don’t buy it, they won’t make it.*

The following is from U.S. Conference of Mayors Excerpts from 2015 Adopted Resolution - U.S. Conference of Mayors: In Support of Municipal Zero Waste Principles and a Hierarchy of Materials Management.

WHEREAS, the concept of zero waste goes beyond recycling and composting at the end of a product's life cycle, to encompass the entire life cycle of a product, beginning with product design, and envisioning the use and management of materials in ways that preserve value, minimize environmental impacts, and conserve natural resources; and

WHEREAS, materials management through zero waste can begin to shift the fiscal burden of waste and empower industry to embrace resource responsibility by rewarding stewardship through purchasing and economic development incentives; and

WHEREAS, while industry and the federal government have variously defined and categorized zero waste strategies, it behooves the nation's cities, with primary responsibility for waste management, to devise a definition that encourages shared fiscal responsibility and legislative innovations,

NOW, THEREFORE BE IT RESOLVED, that The United States Conference of Mayors adopts a definition of Zero Waste, and set of Zero Waste principles, that recognizes a…
Hierarchy of Material Management

1. Extended Producer Responsibility and Product Redesign
2. Reduce Waste, Toxicity, Consumption, and Packaging
3. Repair, Reuse and Donate
4. Recycle
5. Compost
6. Down Cycle and Beneficial Reuse
7. Waste-Based Energy as disposal
8. Landfill Waste as disposal

This glossary will be updated as new information becomes available. Thank you for caring enough to think beyond your recycle bin!