



THE COMMUNITY ZERO WASTE ROADMAP

By Eric Lombardi
and Kate Bailey

ecocyclesolutionshub.org

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**Zero Waste is a journey, not a destination.
Where that journey takes you is all about
the choices you make along the way.**



INTRODUCTION: ON THE ROAD TO ZERO WASTE

When it comes to waste, our choice is simple: Every day we get either closer to or further from a Zero Waste future. We can choose to sustainably use our limited resources, so we can support future generations. We can choose to reduce our climate impact and build resilient communities. We can choose to invest in green jobs and our local economy. Or, we can continue to throw away our “trash” and with it all these opportunities for positive change. That is the essence of the journey and the choices we have to make.

We’re here to help you choose Zero Waste and get moving on that journey, whether you’re ready to move an inch or a mile. As a citizen, business owner, student, government official or public staff member, if you believe in the goal of Zero Waste, you can become the Zero Waste Champion in your community.

We created this *Community Zero Waste Roadmap* as a guidebook for Zero Waste champions like you to:



TAKE THE MYSTERY OUT OF ZERO WASTE PLANNING.

The Roadmap is based on proven policies, programs and facilities that are working today in communities around the U.S. and the world. Nothing exotic, nothing untested. Just tried and true strategies that you can implement in your community.



CREATE A COMMON FOUNDATION.

Zero Waste is a global movement, but it’s driven by local, community action. The Roadmap narrows down hundreds of potential Zero Waste actions into the most critical components, so we can all start from the same checklist for success.



MOBILIZE COMMUNITIES TO WORK IN TANDEM.

Public officials, citizens and businesses can learn from, collaborate with, and support each other on each step of the Zero Waste

journey. Sharing successes and lessons learned strengthens the global movement and inspires others to be the catalyst for change in their communities.



PREVENT EXPENSIVE MISTAKES.

The fastest way to close the door on our Zero Waste future is to build a new \$300 million landfill or incinerator. Communities need to know there is a credible alternative to burying or burning our future, as well as a comprehensive, viable strategy to make it happen.



HELP YOU GET MOVING.

The Roadmap is your guide to creating a Zero Waste plan that’s right for your community. You can assess where you are on the path, which steps to prioritize next, and then connect with us online to get the tools, best practices and network to make Zero Waste a reality.

WHAT YOU'LL FIND INSIDE

Some Zero Waste plans are 100+ pages. This Roadmap is brief by design. It's a high level overview of the key infrastructure, policies and programs that have been proven to work in every community that is seriously pursuing a Zero Waste goal. We've laid it out as a three-phase, 10-year plan to recover 90% of the discards in your community and to reduce waste at the source.



This Roadmap is designed to be used as the starting point for anyone who wants to get their community moving on the journey toward Zero Waste. It will help you understand your role in the community and how you can create a ripple of change wherever you call home. It is going to take all of us working together to change the existing systems where we “throw away” nearly everything into community systems where we recover nearly everything for recycling, composting and reuse. Together we can eliminate the very concept of waste as we move toward sustainable, prosperous communities.



WE'RE HERE TO HELP YOU GET MOVING IN YOUR COMMUNITY.

Join us at ecocyclesolutionshub.org for

- Webinars
- Model policies
- Action toolkits
- Connect with experts and fellow changemakers
- Much more

WHAT IS ZERO WASTE AND WHY DOES IT MATTER?

Zero Waste can be as simple as recycling everything in your home and as powerful as the complete redesign of our whole industrial approach to resource use—from product design to disposal. It starts when we change our mindset and challenge the very idea of waste: Everything we once thought of as “waste” has value and our job is to discover that value.

When we throw something away it becomes a “discard,” but that doesn’t mean it is waste.

When we move beyond our individual lifestyle choices to advocating for Zero Waste systems in our local community, we can address some of our most pressing environmental, social and economic challenges. A Zero Waste system reduces natural resource depletion, conserves energy, mitigates climate change, reduces water usage, prevents pollution and toxins creation, stops ecosystem destruction, and strengthens the local economy.

The world is now talking about creating circular economies where resources are used over and over again as long as possible, as opposed to the historical linear approach to industrial production of “take— make—waste.” This exciting paradigm shift offers a way for the people to have a rich quality of life that can be sustained over time.

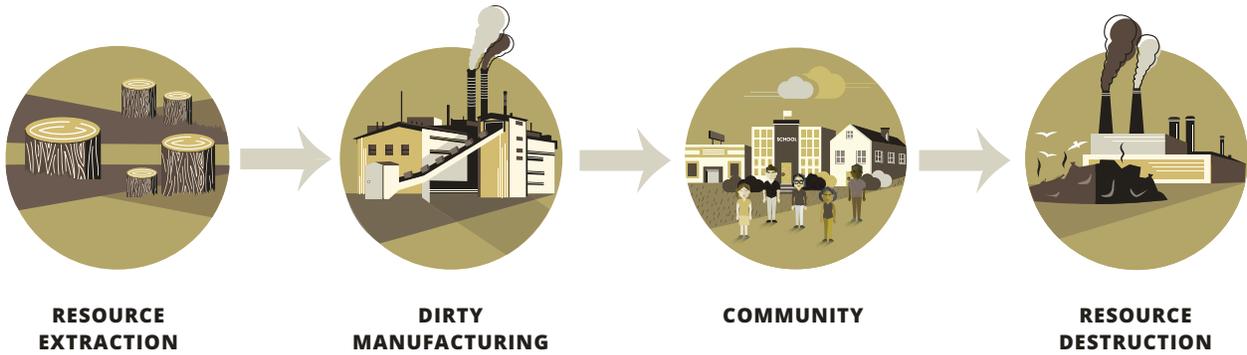


WHAT IS ZERO WASTE?

Zero Waste redesigns our systems and resource use—from product design to disposal—to prevent resource depletion, conserve energy, mitigate climate change, reduce water usage, prevent toxins creation, and stop ecosystem destruction.

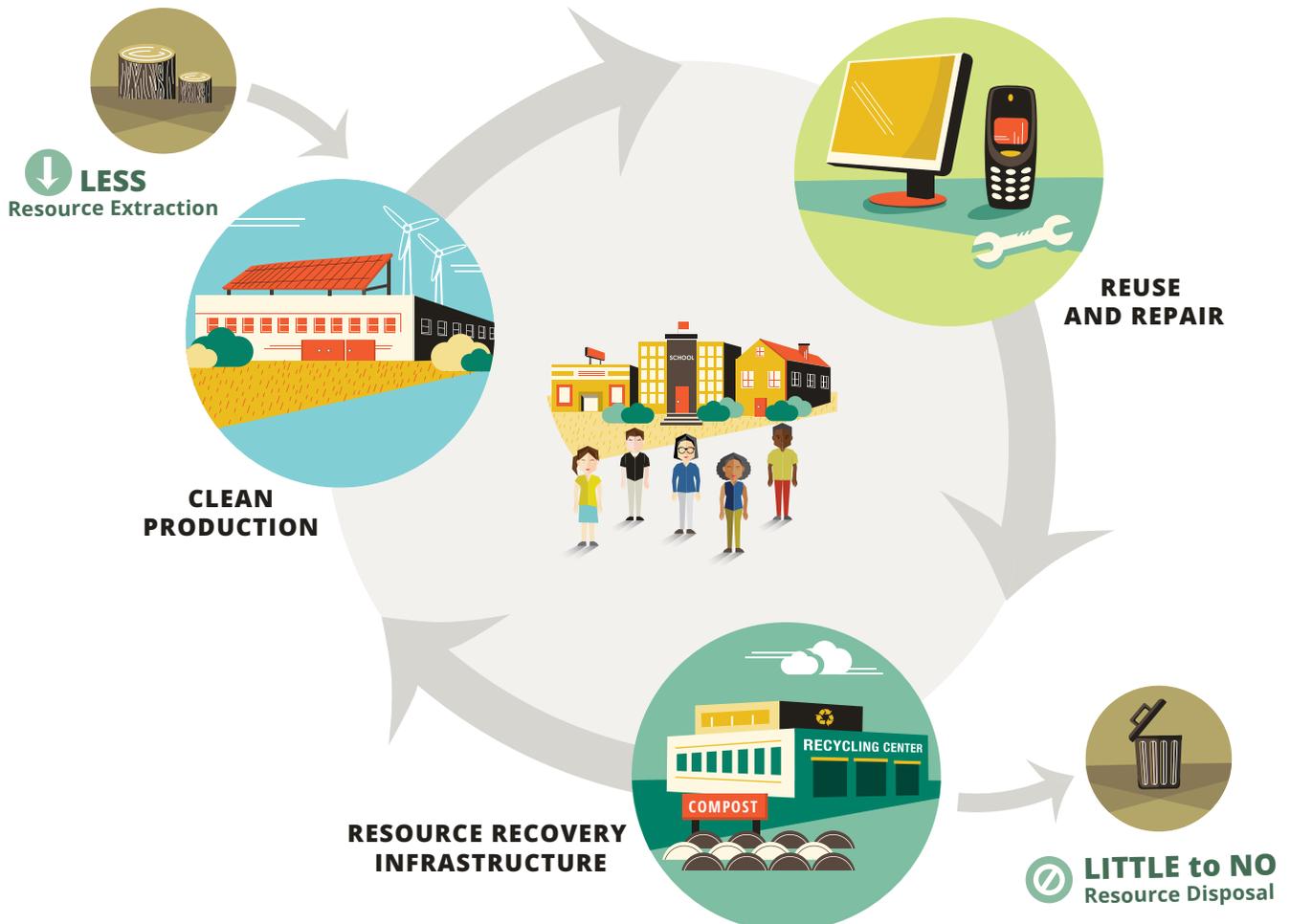
Zero Waste then captures our discards and uses them, instead of virgin natural resources, to make new products, creating far less pollution and feeding the local economy.

Our current production system goes one way - FROM THE EARTH TO THE DUMP.



A Zero Waste system is cyclical, as in nature, where there is no waste.

THE RESULT IS A THRIVING ZERO WASTE COMMUNITY.



WHY ZERO WASTE MATTERS

Do we really have a waste problem? Do we really need to pursue “zero” waste instead of just doing a bit of recycling and then burning the rest to make energy? Is all the work and political headache really worth it?

The answer is absolutely yes! The issue of “waste” in our communities is one of the most visible platforms from which to address the root causes of many of the world’s social and environmental challenges. It’s truly a local action with global impacts. Here’s what we can achieve:

The “Zero Waste Future” is one of the good news stories of our time: Instead of a waste problem, we have a resource opportunity.



SUSTAINABLE RESOURCE USE

We are 7+ billion people living on one planet. Our supplies of fresh water, fossil fuels, metals, soils and other resources are limited. Zero Waste helps us live within our planet’s means by using resources more efficiently, so we have the raw materials to sustain future generations of humans and other species.

CLIMATE RESILIENCE

The way we produce, consume and dispose of our products and our food accounts for 42% of all U.S. greenhouse gas emissions. Zero Waste planning is one of the fastest, easiest, most cost-effective ways a community can reduce this climate impact.





GREEN JOBS, STRONG LOCAL ECONOMY

Zero Waste creates ten times more jobs per ton than landfills and incinerators. By keeping dollars and materials circulating through the local area, instead of burying them in a landfill, Zero Waste strengthens the local economy. This makes Zero Waste a fundamental cornerstone of a circular economy.

HEALTHY PEOPLE, HEALTHY PLANET

Every single one of us—even polar bears—carries toxic chemicals in our bodies—toxins emitted from manufacturing plants, landfills and incinerators. Zero Waste redesigns products and manufacturing processes to be as non-toxic as possible, so that all living things, human and otherwise, are safe.



HEALTHY SOILS, HEALTHY FOOD

Our soils are a non-renewable resource that is being depleted of nutrients due to many factors—from pesticides to chemical fertilizers. By composting our biodegradable discards, such as food scraps and yard debris, we can replenish our soil with much-needed nutrients. Healthy soils grow healthier food, require fewer pesticides, conserve water, and slow climate change by storing carbon.

SOCIAL JUSTICE

As we run out of the resources that support us—like oil, minerals and even fresh water—wars will be waged. In fact, around the globe we're already fighting over these scarce supplies. Zero Waste designs products using fewer resources, so that this and future generations can live peacefully. Zero Waste is a new peace movement.



WHAT DOES IT TAKE TO GET TO ZERO WASTE?

Getting to Zero Waste doesn't mean achieving absolute zero. We often say the goal is Zero Waste...or darn near. What this means is that you're committing to pursuing the goal of zero using three strategies:



Recycling is a cornerstone of Zero Waste and a key starting point for many communities. But to truly realize the full benefits of Zero Waste, we need to **move beyond just 100% recycling and redesign our entire system of resource use**. Take bottled water, for example. We know tap water is a far more efficient system for delivering water than bottled water. Even if we recycled 100% of the bottled water containers, tap water still uses far fewer resources, produces far fewer greenhouse gas emissions, and avoids toxic emissions. In this way, Zero Waste addresses a product's entire lifecycle, not just whether it can be recycled or composted.



INTERNATIONALLY ACCEPTED DEFINITION OF ZERO WASTE

"Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use.

Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them.

Implementing Zero Waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal or plant health."

— [Zero Waste International Alliance](#)

HERE'S WHAT YOU NEED TO CREATE A ZERO WASTE FUTURE

Zero Waste is equal parts policies, programs and infrastructure. To make it all happen takes robust community engagement.

Policies

Zero Waste means changing the rules so policies and incentives reward recovery over waste. Products must be non-toxic, reusable and recyclable. The cleanest companies, not the dirtiest, reap the profits.



Programs

A Zero Waste future requires changing behavior and changing culture; it requires all hands on deck. Education, outreach and other programs engage everyone in your community on how and why to participate.



Infrastructure

Recycling and composting bins in every home, school and business are essential to Zero Waste. Six key facilities are needed to capture and convert these materials from waste to resources. When your community invests in Zero Waste facilities and businesses, it may never have to build another landfill.



Community Engagement

A Zero Waste community is not built by government alone. It's citizens, businesses and government working together to create a better future. Each of us has a role to play in creating change and actions we can take every day.



FIVE POLICY TOUCHSTONES OF A COMMUNITY ZERO WASTE SYSTEM

Each community will forge its own course toward Zero Waste based on this common foundation of policies, programs, infrastructure and community engagement. Keeping these five policy touchstones close at hand will ensure that your community is staying on the correct course:

- 1** Everyone in the community has the opportunity to recycle and compost at home, at work, at school and everywhere they go. Recycling and composting is at least as convenient as trash.
- 2** Everyone can easily access information and programs about how to reduce waste and increase recycling/composting/reuse in their own homes and businesses.
- 3** Incentives and public policies financially reward resource recovery over wasting and the use of less toxic materials in products and services.
- 4** There are facilities within a reasonable distance to recycle/compost/reuse/repair a wide range of materials.
- 5** Local Zero Waste business enterprises receive long-term public sector support to create green jobs and strengthen the local economy.



THE ROADMAP: STEPS ON YOUR ZERO WASTE JOURNEY

If you're excited by the vision of a Zero Waste future, then you're ready to get started on the Zero Waste journey. This *Community Zero Waste Roadmap* will help you get there.

We know that every community is different, so while the Roadmap shows the final destination, only you can chart the actual path you need to take toward Zero Waste. The first part of the Roadmap walks through **what** needs to be done. The next section about community partnerships and dialogue focuses on **how** to actually implement change. Combined with an assessment of your current policies, programs and infrastructure, you'll be able to figure out which first steps make sense for your community.

WHAT TO DO: THREE PHASES OF ACTION OVER 10 YEARS

The Roadmap is structured into three phases over 10 years with specific goals and objectives for each phase to benchmark your progress. Our approach is aggressive because the time to act is now: Nearly two-thirds of our materials still get buried in landfills or burned in incinerators every year in the U.S.—that's more than 165 million tons per year. We recycle and compost only about 33%. While aggressive, our approach is also feasible. Most communities will start on Phase One with a goal of getting to 50% recovery and a focus on strengthening their recycling and composting infrastructure.

And change can happen quickly. Leading communities are pushing 60-80% recovery and implementing many of the Phase Two strategies outlined below. This means we know how to—and could—double our national recycling rate over the next ten years in every community around the country.



ZERO WASTE AROUND THE GLOBE

The U.S. is the most wasteful country on Earth—if everyone consumed like the U.S., we would need five planets to support us. That's why we've chosen to focus this plan on changing our local systems here in the U.S. first.

It's our hope that a lot of what we've created will be useful to our global allies working in communities worldwide, and that someday we can collectively pen a similar roadmap from a global perspective.

PHASE 1

Access to Services

YEARS 1-5

GOALS: Set the community goal of Zero Waste, begin building infrastructure, and provide access to resource recovery services for everyone. Within five years, create a community where you can't miss the new Zero Waste approach—there are recycling and composting bins everywhere and education/outreach programs are making Zero Waste the new cultural paradigm in your community.

PHASE 2

Building Participation

YEARS 6-9

GOALS: Maximize participation in source separation and target hard-to-recycle material streams. No longer is "wasting" an acceptable social norm, and it becomes illegal to not recycle and compost.

PHASE 3

Recovering Whatever's Left

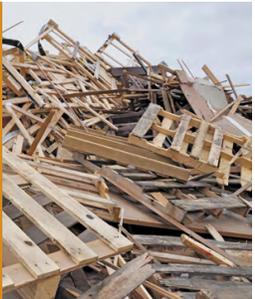
YEARS 10 AND ON—90+% DIVERSION

GOALS: Reduce amount of materials discarded per person and overall resource consumption. Refuse products and packaging "designed for the dump." Redesign community systems to share and reuse materials as part of a new circular economy.

FACILITY DEVELOPMENT TO ACHIEVE ZERO WASTE

If you're not going to throw discards into the landfill, where are you going to put them? The creation of alternative facilities is essential for your Zero Waste success.

These six facilities are required at some point in your journey to achieve a Zero Waste community:

<p>RECYCLABLES Materials recovery facility (MRF) for traditional recyclables</p>		<p>ORGANICS Organics recovery facility (ORF) for composting and energy production</p>	
<p>CONSTRUCTION Construction, demolition and deconstruction (CDD) facilities for recycling and reuse of building materials</p>		<p>HARD-TO-RECYCLE Center for hard-to-recycle materials (CHaRM) for non-traditional recycling</p>	
<p>REUSE & REPAIR Reuse and repair facilities for highest and best use before recycling</p>		<p>WHATEVER'S LEFT Materials recovery biological treatment (MRBT) facility for "whatever's left"</p>	

Although this list may seem overwhelming for your community right now, the good news is that these Zero Waste facilities all use off-the-shelf technology with established construction and operating costs. Many communities will already have some of these Zero Waste facilities, and they should be assessed for their ability to expand and handle all of the community's discards. These facilities can be built locally or they can be built as regional collaborations using a hub and spoke model.

They don't all need to be built at once, but since facility planning, siting and construction can take years, it is crucial that the facility planning process begin immediately. We've outlined which facilities are needed most for each stage of your Zero Waste journey, but, in truth, it's best to build off of the existing programs and facilities you already have in place. That might mean focusing on some action steps before others while new infrastructure comes online.

GET MOVING: 21 ESSENTIAL ACTION STEPS FOR A ZERO WASTE FUTURE

We've identified best practices for each of the steps below so you can learn more about how this strategy is working on the ground.



Find sample policies and learn more about these real-world examples at ecocyclesolutionshub.org.

PHASE 1

Access to Services YEARS 1-5

- Commit to the Zero Waste path and start measuring your progress
- Universal household recycling with unit-based pricing (PAYT)
- Universal recycling for all businesses and multi-family units (MFUs)
- Universal composting programs for households, MFUs and some businesses
- Product fees and bans
- Public space, school and government initiatives including Zero Waste events
- Incentives for construction, demolition and deconstruction (CDD) recycling
- Community education

Supporting Infrastructure:
Materials Recovery Facility,
Organics Processing Facility

PHASE 2

Building Participation YEARS 6-9

- Recycling required for all businesses, homes and MFUs
- Composting required for all businesses, homes and MFUs
- Expand waste reduction and reuse initiatives
- Biweekly trash service for residents
- Landfill and incinerator disposal bans
- Producer responsibility for hard-to-recycle (HTR) materials including electronics, paint, mattresses, carpet, batteries and other misc. products.
- Recovering materials from mixed construction loads
- Community education

Supporting Infrastructure:
Center for Hard-to-Recycle Materials (CHaRM),
CDD facilities

PHASE 3

Recovering Whatever's Left YEARS 10+

- Enforcement of source-separation requirements
- Public policy support for sustainable consumption
- Economic policy changes and full-cost accounting
- Residual waste processing and ban on incineration
- Community education

Supporting Infrastructure:
Materials Recovery Biological Treatment (MRBT) facility

PHASE 1

Access to Services YEARS 1-5

The goal in Phase One is simple yet powerful: Everyone in the community should have the opportunity to recycle and compost everywhere in your community—at home, at work and on the go. By building an equitable and universal Zero Waste system, you're making it easy and convenient for everyone to participate and inspiring them to start down the Zero Waste path.

1. COMMIT TO THE ZERO WASTE PATH AND START MEASURING YOUR PROGRESS

A critical early step for community leaders, such as a city council, is the adoption of a Zero Waste resolution that sets Zero Waste as a goal and planning principle for the community. Your community will then customize its own Zero Waste plan based on existing infrastructure, policies, programs, and any special regional considerations.

Data collection needs to begin as soon as possible to measure success over time. Focus on calculating your community's waste disposal/recovery rates per capita to ensure that waste reduction and reuse efforts are tracked. In fact, the one key number that really counts in the end is how many tons are still going to the landfill—and moving that number closer and closer to zero.

WHO'S DOING IT:

→ Teton County, Wyoming and Oakland, California adopted Zero Waste resolutions that directed staff to create a Zero Waste plan. Oakland prioritized both recycling and waste reduction by putting a cap on how much trash it will send to the landfill.

2. UNIVERSAL HOUSEHOLD RECYCLING WITH UNIT-BASED PRICING STRUCTURE

Recycling has to be easy and convenient for people to participate, which means a recycling bin in every household. Rather than having to make a special request or pay extra for recycling pickup, recycling should be provided automatically along with the basic trash service package (universal recycling). You can implement universal recycling through franchise or contract agreements (single or multiple haulers), municipal ordinance or government-run trucks.



Curbside recycling is one of the first priority actions to move your community toward Zero Waste.

PHASE 1

Pay-as-you-throw (PAYT) is an economic model that charges households according to the amount of garbage they generate, with more trash costing more money. This billing structure (either by volume or weight) creates a direct financial incentive for residents to recycle more and waste less, and it results in higher recycling rates and decreased trash generation. More than 7,000 communities in the U.S. use the PAYT system, making it one of the most effective first steps to improve recycling.

WHO'S DOING IT:

- If your local government already runs the household discard collection system, then making change will be faster and easier since you're already in control of the situation. See Loveland, Colorado as a model for a successful municipal-run collection program.
- If your community contracts or franchises its trash collection, then you dictate the terms of service and can transition to universal recycling in your next contract revision. See Lafayette, Colorado as a model for contracting with one hauler for services.
- If your local government is not in control over the household collection system, then an ordinance will be required to specify the new rules that the private sector haulers must follow to work toward the community goals. See Boulder, Colorado as a successful model in a free market hauling environment.

3. UNIVERSAL RECYCLING FOR ALL BUSINESSES AND MULTI-FAMILY UNITS (MFUS)

Universal recycling, mentioned above, means that everyone has the infrastructure and opportunity to recycle, but participation is not required (that comes in Phase Two). Making recycling convenient is paramount, especially at the business and apartments in your community. Universal recycling puts recycling bins at every business and multi-family residence that subscribes to trash service. Just like household recycling services, universal commercial recycling can be done through contracts, municipal ordinance or government-run trucks.

WHO'S DOING IT:

- Austin, Texas phased in its recycling requirements on businesses and apartments, starting first with the largest properties.

4. UNIVERSAL COMPOSTING PROGRAMS

Now that you've provide the opportunity to recycle for every home and business, it's time to introduce composting. Starting with food-generating businesses can be beneficial because most of the discards coming from restaurants, grocery stores and institutional kitchens is food waste. This relatively clean, high volume material can be the foundation for a successful local composting facility that eventually serves your entire community.



More than 200 U.S. communities collected food waste from residents in 2014.

PHASE 1

Residents also receive curbside composting service, which can begin with just collecting yard trimmings and then adding in food waste once your infrastructure is in place. It's also important to extend composting to multi-family residences, so all residents throughout your community have the opportunity to both recycle and compost. With universal composting collection, every business, home and MFU is required to have service, but the requirement to separate food waste comes in Phase Two a few years later. Universal collection services can be implemented through franchise agreements (single or multiple haulers), hauler licensing or municipal ordinance.

WHO'S DOING IT:

- Massachusetts, Connecticut and Austin, Texas are among those starting with composting requirements for large food waste generating businesses in order to build the infrastructure needed to eventually recover all their food waste and organics.
- Boulder, Colorado requires that composting and recycling services are provided at all MFUs, so all residents have equal opportunity to participate in the city's Zero Waste efforts.
- Kirkland, Washington offers composting first to MFUs that have high recycling rates and a resident recycling liaison.



Disposable plastic bags are being replaced with reusable alternatives around the world.

5. PRODUCT FEES AND BANS

Disposable packaging is polluting our oceans and streams and is an infamous symbol of our unsustainable consumption. Implementing fees or bans on disposable products, such as single-use checkout bags, polystyrene (Styrofoam) take-out containers, bottled water and paper coffee cups, will reduce waste in your community and raise awareness about the negative impacts of our throwaway society.

Fees are based on the Polluter Pays principle: Those who manufacture or use disposable single-use products and packaging (i.e. toxic, non-recyclable, non-compostable) should be held responsible for the negative environmental and economic impacts of their choices. These fees can fund education and outreach programs, litter cleanup efforts and resource recovery infrastructure.

WHO'S DOING IT:

- Governments at all levels are shifting the marketplace toward more sustainable products through disposable bans and fees:
 - National level: Disposable bag fee, Ireland
 - State level: Plastic bag ban, California
 - Local level: Polystyrene packaging ban, Seattle, Washington; disposable bag fees, Washington, D.C. and San Jose, California.

6. PUBLIC SPACE, SCHOOL AND GOVERNMENT INITIATIVES INCLUDING ZERO WASTE EVENTS

A community's Zero Waste efforts need to be front and center everywhere that people go—public events, schools, local parks and all government buildings. To start, your local government should lead by example and adopt an internal goal of Zero Waste. A good next step is recycling and

composting bins at municipal buildings and in all local schools. Being responsible for the “commons,” the government should also support a comprehensive Public Place Recycling collection program with recycling bins next to every public trash bin in your community.



Zero Waste events are a great opportunity to educate a large number of residents in one place.

Zero Waste events are a great opportunity to showcase your community's Zero Waste goals and commitments. Recycling and composting “stations” provide educational opportunities, and if the food vendors are required to use only reusable, recyclable or compostable plates, bowls, cups, etc. then it's possible to have NO trash bins at your events!

WHO'S DOING IT:

- Government leadership: Boulder County, Colorado adopted a Zero Waste goal for all government operations and rolled out composting and recycling services to all county buildings.
- Zero Waste events: Minneapolis, Minnesota has a great policy on event recycling with a focus on creating a recycling plan prior to the event and ensuring compliance. San Francisco, California is one of the few cities that requires events to both recycle and compost and offers a great training programs for event organizers to implement the program.

7. INCENTIVES FOR CONSTRUCTION, DEMOLITION AND DECONSTRUCTION RECYCLING

It's critical for your community to look beyond the traditional recycling and composting bins for other Zero Waste opportunities. Construction, demolition and deconstruction (CDD) materials are the next major target. Recycling CDD materials saves energy and greenhouse gas emissions, reduces pollution and creates jobs. Your community should establish recycling targets for CDD projects, and require a financial deposit from builders when applying for a building permit. The deposit is refunded when the project proves that the recycling goals have been met. Recycling goals should be set initially at 70% recovery for inerts (asphalt, brick, concrete, etc.) and 50% for other materials like drywall, wood, metal, cardboard, shingles, etc. These targets will help attract investments in local CDD recovery infrastructure by ensuring a flow of materials to these facilities.

WHO'S DOING IT:

- Fitchburg, Wisconsin sets specific CDD recycling requirements for commercial and residential projects.
- Santa Monica, California leads by example by including all municipal projects in its CDD recycling regulations.

8. COMMUNITY EDUCATION

Zero Waste is about changing behavior, and the single most important change is to sort your materials; there is no mixed waste trash can in the Zero Waste future. Community education programs create this long-term cultural and behavioral shift toward separating our discards—known as source separation. You should start with a focus on the benefits of recycling and composting, as well as the logistics of how to do it. Public outreach programs geared toward schools, businesses, households and events will create citizen buy-in and participation—the keys to success.

It's important that children begin participating in source-separation behavior from the earliest years in school. Local schools should implement both recycling and composting collection systems that complement a science-based curricula about waste, recycling, composting, resource conservation and disposal.

Education is a critical component throughout every phase of the transition toward a local Zero Waste culture and should be funded at a minimum of \$2 per person per year during Phase One.



Kids take their recycling knowledge home and educate their parents, helping to engage the entire community around the benefits of recycling.

WHO'S DOING IT:

- Eco-Cycle makes Zero Waste part of the daily school routine for students in Boulder County, Colorado with its [Green Star School program](#).



Find sample policies and learn more about these real-world examples at ecocyclesolutionshub.org.

SUPPORTING INFRASTRUCTURE FOR PHASE ONE

MATERIALS RECOVERY FACILITY (MRF) FOR TRADITIONAL RECYCLABLES

This is the mainstay of your Zero Waste infrastructure: a facility to recycle your paper, cardboard, newspaper and glass, metal and plastic containers—aka your “traditional” recyclables. It’s the first facility you’ll need access to, and it can be designed to process recyclables collected as single-stream, dual-stream or multi-stream, all depending on the economics of your region. In either case, your goals are to maximize material recovery, minimize processing residue, deliver quality materials to domestic, local markets (whenever possible), and sell the materials for the highest and best use. Not every town needs its own MRF since long-haul of recyclables up to 50 miles or so can be economically feasible.

→ **See how a single-stream MRF works.**

ORGANICS RECOVERY FACILITY (ORF) FOR COMPOSTING AND ENERGY PRODUCTION

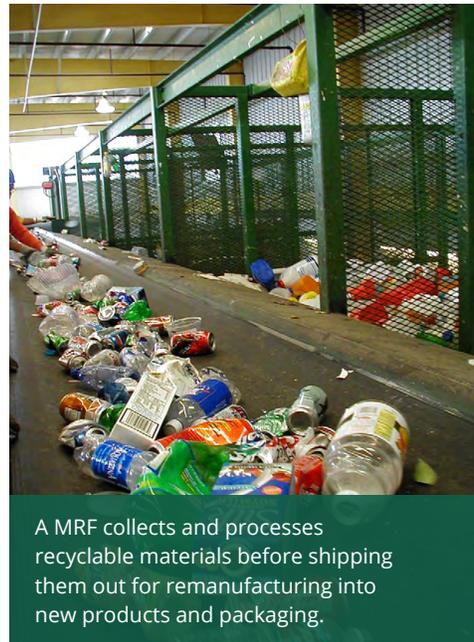
After recycling, the next big chunk of your waste stream is organic materials: food scraps, garden/yard trimmings, soiled paper products like tissues and paper towels, and bioplastics. Eventually your organics facility should be able to process all these materials, but many facilities start first with just yard trimmings.

There are thousands of facilities across the U.S. that compost yard waste, so for many communities, adding food scraps to the program is the next big step. Again, not every community needs its own composting facility since long-hauling organics can be feasible up to around 50 miles.

There are many acceptable composting technologies such as windrows, aerated static piles, vermicomposting and in-vessel systems. For energy production, the only acceptable Zero Waste technology is anaerobic digestion. Organic materials sent to landfills for gas recovery projects are not considered diversion.

A critical requirement for ALL organics collection/processing systems is that they are focused on creating source-separated organics (SSO), as opposed to mixed-waste systems. Source-separated organics will produce high quality soil amendments.

→ **Dig into the composting process, available technologies, and how to use compost products at organicstream.org and compostingcouncil.org.**



A MRF collects and processes recyclable materials before shipping them out for remanufacturing into new products and packaging.

PHASE 2

Building Participation YEARS 6-9

Changing public behavior is one of the toughest challenges in the Zero Waste journey because no one likes to be told that they have to do something. But the role of government is to provide for the general welfare of the public, and to do that we create rules that require individuals and businesses to behave in a certain way that are necessary for the good of the whole.

So it is with waste management issues. We need to move away from behaviors that harm and endanger our public and environmental health. That's what Phase Two of the Roadmap is about—creating new rules that change behavior. An effective way to implement some of the steps below is called the “rates and dates” approach. Your community sets a goal to achieve a certain level of activity (the rate) by a certain date. If voluntary efforts do not help the community reach its desired goal, new regulation kicks in that mandates the activity. For example, California very effectively used the rates and dates approach in the 1990s when it set a 50% landfill diversion goal by 2000. Communities faced steep fines or state intervention for missing the cut-off date. Today, California communities are national leaders on the road to Zero Waste, and the state has a new goal of 75% diversion by 2020.

1. RECYCLING REQUIRED FOR ALL BUSINESSES, HOMES AND MFUS

In Phase Two, all residents and businesses should now be required to separate their discards for recycling. This can be adopted as a phase two component of your initial universal recycling policy or through a new policy. Mandatory recycling programs maximize the diversion of traditional recyclables and underscore that everyone plays a part in a Zero Waste community. Enforcement should be introduced slowly, so that your community understands and feels that it is fair. The first enforcement push should focus on education and providing technical assistance to make recycling more convenient and accessible, particularly at businesses and MFUs.



San Francisco was the first U.S. city to roll out a three bin collection system for all residents and businesses.

WHO'S DOING IT:

→ All residents and businesses have been recycling in Chittenden County, Vermont since 1994.

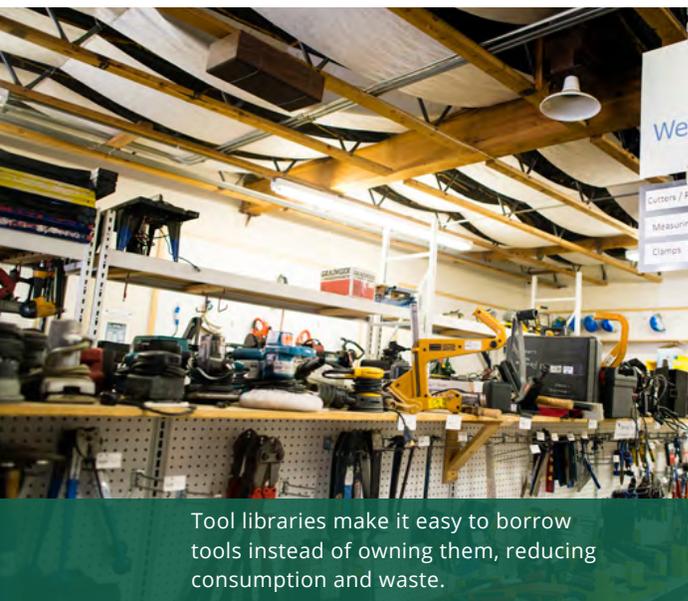
PHASE 2

2. COMPOSTING REQUIRED FOR ALL BUSINESSES, HOMES AND MFUS

Composting programs are expanding rapidly across the U.S. with more than 200 communities offering food waste collection in 2014. But participation rates lag behind that of recycling programs, which is prompting leading communities and even some states to require composting. If participation and diversion rates do not meet your community goals, it's time to require composting across all sectors. This can be done through a phased approach in your universal composting policy or through a new ordinance.

WHO'S DOING IT:

- San Francisco, California is the first city in the nation to require everyone in the community—including businesses, single family homes, multi-family units and events—to recycle and compost.



Tool libraries make it easy to borrow tools instead of owning them, reducing consumption and waste.

3. EXPAND WASTE REDUCTION AND REUSE INITIATIVES

Setting up convenient community-wide systems to recycle and compost is the first focus of your Zero Waste community plan, but reducing overall waste generation and using resources more efficiently is the ultimate goal. Now is the time to shift the focus toward waste reduction by promoting reuse and repair facilities, purchasing durable instead of disposable goods, supporting collaborative consumption through sharing rather than owning, Zero Waste purchasing for businesses and governments, and product redesign policies. Local government and institutions should lead by example and leverage public sector contracts to increase demand and reduce costs for sustainable products and practices that can benefit the entire community.

WHO'S DOING IT:

- The [Responsible Purchasing Network](#) features many great purchasing guides and models for cities, institutions and businesses.
- Community tool libraries in [Berkeley, California](#) and [Philadelphia, Pennsylvania](#) make it easy to share, rather than own, hundreds of tools and gadgets.

4. BIWEEKLY TRASH SERVICE FOR RESIDENTS

When families are actively recycling and composting, what's left in the trash is mostly dry and inert. In fact it's mostly non-recyclable plastic packaging. This means the leftover trash no longer creates odors or attracts animals, so it doesn't have to be collected every week. By collecting trash on a biweekly or monthly basis, your community can reduce the costs of providing collection service, reduce truck traffic and encourage participation in your recycling and composting programs. The cost savings can be used to offset the increased costs from adding organics collection services. Special collections can be made to some homes to accommodate young children or medical conditions.

WHO'S DOING IT:

→ Renton, Washington has run a successful biweekly trash program since 2009.

5. LANDFILL AND INCINERATOR DISPOSAL BANS

Landfill bans reinforce source-separation requirements and spur the development of facilities, businesses and markets to recover recyclable and compostable materials. A ban on the disposal of yard debris in more than 20 states jumpstarted the early composting industry. Both your local and state government can implement disposal bans for materials such as all traditional recyclables, yard debris, universal waste, inert CDD materials, electronics, appliances and commercial food waste.



Disposal bans can create new recycling markets and business opportunities.

WHO'S DOING IT:

- On a city level: Seattle, Washington boasts high participation and recovery rates in its Zero Waste programs thanks to disposal bans on numerous materials.
- On a state level: Massachusetts and North Carolina use disposal bans to develop markets and local industries as well as reduce waste.



NO PLACE FOR INCINERATION IN A ZERO WASTE COMMUNITY

Creating energy from waste can sound like a win-win, but don't be fooled. Waste-to-Energy (WTE) makes no sense environmentally, economically or socially: It has the most greenhouse gases (GHG) per fuel type; its emissions contain dangerous air pollutants including mercury and dioxins; it is the most expensive form of electricity; it creates only a fraction of the jobs compared to those created by recycling and composting; and WTE produces only a fraction of the energy that can be saved through recycling. Because WTE destroys resources forever, it is not part of a Zero Waste future.

6. PRODUCER RESPONSIBILITY FOR HARD-TO-RECYCLE (HTR) MATERIALS

Extended producer responsibility (EPR) programs recover hard-to-recycle or toxic materials and lessen the financial burden on municipalities for handling these materials. Your local government should lobby for state-level EPR laws that shift the management of discarded products and packaging from general taxpayers to the manufacturers and consumers responsible for generating this waste. Early priority EPR materials include electronics, paint, and mercury-containing products. Programs for carpet, mattresses, pharmaceuticals and batteries are evolving rapidly, as well, and should be considered.

WHO'S DOING IT:

→ There are **89 EPR laws** are now on the books across 33 U.S. states. California and Maine are national leaders.

7. RECOVERING MATERIALS FROM MIXED CONSTRUCTION LOADS

To reach high levels of CDD recovery, your community will need strong recycling targets, as well as a mixed CDD processing facility to recover additional materials. This is particularly important in urban areas where infill projects have limited space for sorting recyclable materials onsite.

WHO'S DOING IT:

→ In Los Angeles, California, licensed haulers must deliver CDD materials to certified CDD processing facilities that must meet minimum recycling requirements.

8. COMMUNITY EDUCATION

Your community awareness campaigns should now shift from a broad recycling message to more targeted efforts that address waste reduction, materials reuse, hard-to-recycle materials, climate change, industrial design, fix-it clinics, purchasing policies, collaborative consumption and special outreach to the self-haul, do-it-yourself population. Your community, education and community campaigns spending should increase to \$3 per person per year.



WHO'S DOING IT:

→ The **Resourceful PDX** campaign in Portland, Oregon aims to reduce overall waste generation to meet the city's Zero Waste and climate goals.

SUPPORTING INFRASTRUCTURE FOR PHASE TWO

CENTER FOR HARD-TO-RECYCLE MATERIALS (CHARM) FOR NON-TRADITIONAL RECYCLING

Hard-to-recycle materials can be 15% or more of the waste stream and often contain toxic materials that need to be safely managed to protect public health and our environment. A center for hard-to-recycle materials, or CHaRM, will capture a variety of household and business discards not collected through traditional recycling programs, including carpet, electronics, plastic packaging, mattresses, textiles, books and other durable goods. A CHaRM can also serve as a collection point for universal or household hazardous waste (HHW). In addition, a CHaRM creates local reuse opportunities and small-scale entrepreneur opportunities.



Visitors from around the world come to the CHaRM to learn about innovative ways to recover hard-to-recycle materials.



Explore the first and largest CHaRM in the USA in Boulder, Colorado.

CONSTRUCTION, DEMOLITION AND DECONSTRUCTION (CDD) FACILITIES FOR RECYCLING AND REUSE OF BUILDING MATERIALS

While CDD materials are not included in the EPA's definition of municipal solid waste (MSW), we include this high-volume, high-visibility waste stream because recovering these materials saves energy and greenhouse gas emissions, reduces pollution and creates jobs.

There are three types of facilities to recover CDD materials:

- Grinding facilities recycle concrete, asphalt, gravel and sand. These programs are the early foundation of a CDD recovery program and deliver high diversion results by weight.
- Resale outlets accept used building materials (UBMs) such as doors, cabinets, windows and lumber, which capture high-value reusable materials, support LEED® standards, and raise awareness of CDD recovery.
- Mixed CDD processing facilities sort recyclable materials from mixed loads of demolition debris and are most common in large urban areas.

Grinding facilities and resale outlets are fairly common around the country, and their presence is growing. Your community should focus first on these two aspects of CDD on your Zero Waste path.



Learn more about construction and demolition waste recovery at cdrecycling.org. Learn more about the deconstruction industry at bmra.org.

PHASE 2

REUSE AND REPAIR FACILITIES FOR HIGHEST AND BEST USE BEFORE RECYCLING

Most communities have a fragmented network of independent reuse and resale outlets such as thrift stores, antique shops, building material resale stores, pawn shops and online exchanges. There are also repair businesses for products like computers, clothing and appliances. These facilities are a critical but often undervalued asset to both building a Zero Waste community and supporting a thriving local economy. Your first step is to acknowledge and promote the existing infrastructure and then expand services where gaps exist. Public support for these private businesses is in your community's best interest because of the environmental, social and economic benefits they bring to the local community.



Discover the value of the reuse sector and learn about projects and services to promote reuse in your community through the Reuse Alliance.



SOCIAL ENTERPRISE: THE NEW PRIVATE SECTOR PARTNER

The management of society's discards is an essential community service. We support managing your six critical Zero Waste facilities through public ownership and private operations. This maximizes your social and environmental goals, such as pollution prevention, resource conservation and local jobs creation, over the long term, and ensures that the community benefit from the new Zero Waste system is always as important as the private benefit of profit.



Social enterprises like Detroit Dirt are springing up around the U.S. to help the environment and the local economy.

In this public/private partnership approach, we recommend the private side of this partnership be a social enterprise, which is a mission-driven business (either for-profit or non-profit) whose business model is to use the power of the marketplace to achieve social and environmental goals. This is an expansion of the system used in most communities to regulate their private utility companies. Under such an arrangement, the private operator could run a Zero Waste facility at a negotiated fixed profit margin, while the community defines the services to be provided, including benefits to the community, such as youth employment opportunities, local procurement requirements, low processing residue rates, reduced greenhouse gas emissions. Explore how social enterprises are [using business to do good](#) for local and global communities.

PHASE 3

Recovering Whatever's Left YEARS 10+

Your community now has the fundamental infrastructure, policies and programs to recycle and compost 75% or more of your waste stream. Everyone—homes, businesses, schools, events and governments—are participating. Now the focus should shift toward whatever's left in your waste stream by reducing resource consumption through larger cultural and economic systems, redesigning products that currently cannot be recovered, and implementing advanced sorting technologies to recover the remaining recyclable and compostable materials.

1. ENFORCEMENT OF SOURCE-SEPARATION REQUIREMENTS

Enforcement of source-separation requirements starts with education and technical assistance, particularly for MFU residents and businesses, as their participation tends to lag behind single-family efforts. High levels of participation are needed to reach recovery rates above 70%, so your municipality will need to enforce participation and target those that repeatedly fail to participate in recycling and composting programs. A “no sort, no pick-up” policy is an effective enforcement approach—if your materials are not separated, your discards are not picked up.

Self-haul loads will increasingly stand out as a source of mixed waste and contamination as your community adopts a comprehensive source-separation system. Requiring do-it-yourselfers and small independent haulers to use a transfer station and structuring gate fees to require pre-sorting or sorting onsite will increase recovery rates in this sector and ensure everyone participates in the new community Zero Waste system.

WHO'S DOING IT:

- Seattle, Washington enforces both recycling and composting at residences.
- Montgomery County, Maryland has a team of specialists that works with businesses to ensure compliance with their mandatory recycling law.



Find sample policies and learn more about these real-world examples at ecocyclesolutionshub.org.

PHASE 3

2. PUBLIC POLICY SUPPORT FOR SUSTAINABLE CONSUMPTION

It's time the focus on waste reduction and sustainable consumption moves beyond a voluntary education program to become part of the community planning process. This means making these core tenets of Zero Waste part of community policies and programs outside of the traditional waste sector. For example, by implementing green building and deconstruction policies your community can reduce the impacts of your built environment and living spaces both in the construction and use phases. Downsizing should be incorporated into home ownership through planning policies that encourage accessory dwelling units, cooperative housing and tiny homes. Policies should support a sharing economy that maximizes the use of existing material assets, such as homes, cars, tools and office space, through services like Airbnb, Uber, tool libraries and impact hubs.



Yard sales are a commonplace example of the informal sharing economy.

WHO'S DOING IT:

- Portland, Oregon helps families build or convert living spaces to accessory dwelling units so they can generate income or downsize after the kids have left home.



PAYT pricing structures are a popular example of how to use economic incentives to change behavior.

3. ECONOMIC POLICY CHANGES AND FULL-COST ACCOUNTING

In a Zero Waste future, economic policies at every level—from local to global—need to create stronger financial rewards for sustainable practices and stronger financial penalties for wasteful behavior. This means raising the costs of mixed-waste disposal to account for environmental externalities such as air and water pollution. Likewise, we need to give financial credit to Zero Waste systems by accounting for the environmental benefits of reduced pollution and climate emissions and the social and economic benefits, such as creating new local jobs.

PAYT (see Phase One) is an example of an effective and popular economic policy that promotes resource efficiency. Many communities already use disposal taxes or product taxes to account for the negative impacts of products on society. More advanced policies will include tax shifting to increase taxes on public “bads” like pollution while decreasing taxes on public “goods” like wages. Communities should utilize a full-cost accounting method when making decisions to assess the financial, social and environmental costs and benefits of their Zero Waste actions.

PHASE 3

WHO'S DOING IT:

- Many states and local communities add a surcharge on top of the landfill fee to support Zero Waste programs. **Wisconsin adds a surcharge** of \$13/ton to its landfill rates to fund recycling and other environmental management programs.
- The environmental benefits of recycling and composting were estimated at **\$120 per ton in Portland, Oregon** using a full-cost accounting methodology.

4. RESIDUAL WASTE PROCESSING AND BAN ON INCINERATION

Zero Waste is slowly putting an end to the mixed waste trash can, and this may be the final nail in the coffin. No longer does trash go straight to the dump—everything must be sorted first for any additional recyclable or compostable materials. By adding a pre-processing facility (see MRBT infrastructure below) you will increase the overall diversion rate by 10-20% and help move your community closer to 90+% recovery. There is no role for waste incineration in our Zero Waste future since it destroys resources and moves us further away from, not closer to, a circular economy. Existing trash incinerators should be shuttered and no new incineration plants built.

WHO'S DOING IT:

- Germany leads the world in requiring that all waste is pre-processed and calling for the end of landfilling as we know it.

5. COMMUNITY EDUCATION

Your community should continue to invest in creative and targeted education campaigns that propel households and businesses toward Zero Waste with spending increasing to \$4 per person per year. New campaigns should focus on promoting a circular economy, collaborative consumption, and reuse and repair opportunities. Ongoing campaigns emphasize the benefits of Zero Waste and how to participate.

WHO'S DOING IT:

- See how the state of Oregon looks at their use of materials in their **2050 vision**.
- New organizations like the **Ellen MacArthur Foundation** are working with businesses on the highest level to rethink how we use materials and envision a circular economy.



Repair clinics such as this one extend the life of products and bring the community together.

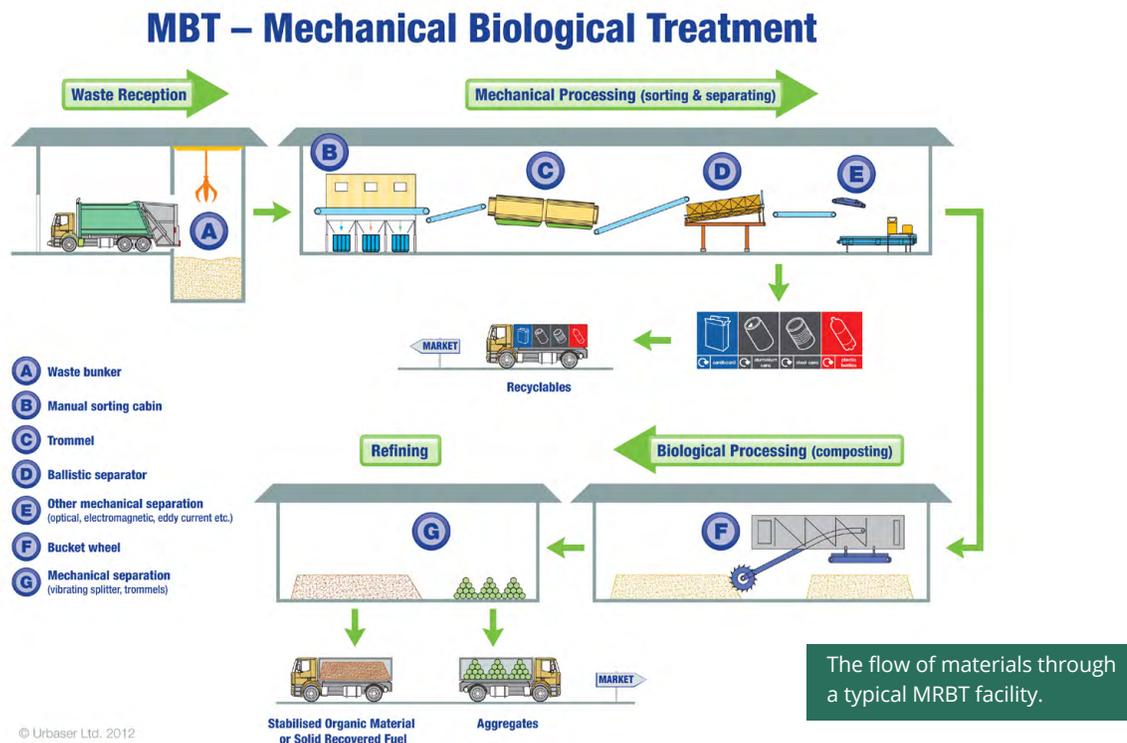


Find sample policies and learn more about these real-world examples at ecocyclesolutionshub.org.

SUPPORTING INFRASTRUCTURE FOR PHASE THREE

MATERIALS RECOVERY BIOLOGICAL TREATMENT (MRBT) FACILITY FOR "WHATEVER'S LEFT"

No matter where you are on the road to Zero Waste, there will still be materials that cannot be recycled, composted, reused or avoided. We call these the "leftovers." The leftovers, or residuals, are currently buried in the landfill, but doing so adversely impacts environmental and public health. The safest way to manage these materials is through a materials recovery biological treatment (MRBT) facility.



An MRBT facility manages the leftovers in four steps:

- 1 Materials are sorted to recover any additional recyclables such as metal, wood and plastics.
- 2 The remaining products and packaging are then surveyed to identify toxic and/or non-recyclable items that should be redesigned for a Zero Waste system.
- 3 The remaining biodegradable materials are stabilized through either a simple aerated composting process or an anaerobic digestion system.
- 4 The inert materials are buried in a landfill. Because the materials were stabilized first, there is little to no landfill gas or leachate produced.

PHASE 3

It is important to note that an MRBT facility is only meant to process the leftovers after your community has sorted out for recycling and composting. It does not replace the need for recycling and composting at home, work and school; it only recovers the materials that were not captured by these programs first.

→ Learn more about the benefits of an MRBT and its role in a Zero Waste community.

→ THE ZERO WASTE PARK

In Eco-Cycle's model "Zero Waste Park," all six Zero Waste facilities are co-located in one convenient place. One good location for this facility would be at your existing landfill since it is appropriately zoned, a remote location and already the destination for most of your materials. The trucks that previously headed straight to the landfill must now first go through the Zero Waste Park where they can drop off source-separated materials for recycling, composting or reuse. The cost of dropping off material will financially reward source-separated items by either paying for materials or taking them for no charge. But in every case, the Zero Waste drop-off options need to be significantly cheaper than the final option of delivering mixed-waste to the MRBT facility. We call this new system the new "landfill gate."



HOW TO FIND YOUR ROLE AND MAKE CHANGE

Now that we've laid out "what" to do on the road to Zero Waste, we need to focus on "how" your community should move forward and begin implementing the needed policies, programs and infrastructure. Anyone who has ever tried to pass a law or create a new community program knows how challenging this thing called "social change" really is. And, we know it well. Eco-Cycle has nearly 40 years of experience working in the trenches on community organizing and developing innovative services to help every sector of the community move toward Zero Waste. Most experts in the world are very good at cooking up good ideas on how the world could function better, but few of them have ever been on the ground doing the hard work of actually turning an idea into a reality.



Find out more about Eco-Cycle's hands-on experience and award-winning programs for residents, businesses, government, schools and events.

HOW TO DO IT: A ZERO WASTE COMMUNITY IS NOT BUILT BY GOVERNMENT ALONE

We often look to government to create change. Back in the days of kings and queens, creating change was as simple as waving your scepter. Today, we still have many governments that lead toward Zero Waste through top-down programs. The European Union has numerous high-level initiatives to reduce waste, recover high levels of recyclable and compostable materials, redesign products without the use of toxic materials, and foster a transition toward a circular economy. But here in the U.S., Zero Waste and the larger environmental movement has been about creating change from the ground up—citizens rallying together and working with government to enact programs, policies and infrastructure.

MOVING FORWARD TOWARD ZERO WASTE



Grassroots change usually starts when someone has an idea about something that “could” be different in the community. (If you’re reading this document, then you may be that someone, a local champion for change and growing Zero Waste in your town.) The idea for “community change” could be anything. Maybe it’s something you saw that’s working in another town—a convenient curbside recycling program, a ban on plastic bags, a community tool library. Whatever it is, the idea sticks, and you start to poke around the internet or talk to people about what it would take and what’s possible.

As an individual, you may not have the power to change the world, but groups of individuals do. Groups are a stronger reflection of the community’s interests and have more power to collaborate with public officials and staff. Plus, groups help you maintain the momentum in creating change when you hit bumps in the road.

And, to be the most successful, you need a community group, working in partnership with local government. We call this the inside-outside partnership strategy.

Changing our individual behavior is a great first step, but to achieve Zero Waste we need to engage with our fellow citizens and our public officials to change our community systems.

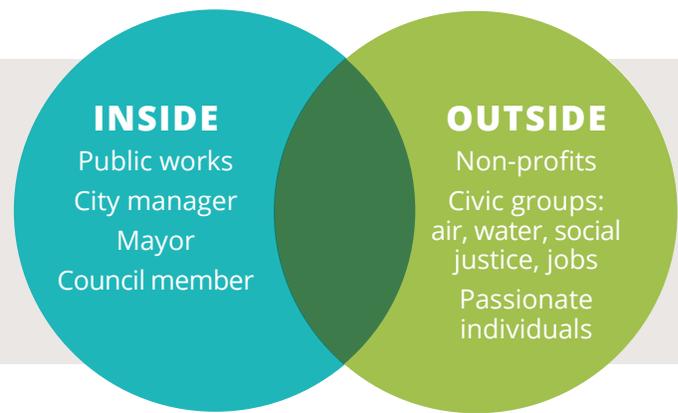
THE INSIDE-OUTSIDE PARTNERSHIP

The Zero Waste journey should ideally be spearheaded by at least two Zero Waste Champions working together from both sides of the table. We call this the “inside-outside” partnership strategy. The inside Champion is from the public sector (either staff or elected) and the outside Champion is a citizen or citizen group. Let’s call them the Government Champion and the Community Champion. We recommended this strategy for four reasons:

- 1** We have first-hand experience in how successful it can be (see case study on next page).
- 2** It is one of the most effective ways to bring together the two largest “interest groups” in a community that are proponents for community improvement.
- 3** It is a powerful community organizing tool because each side brings to the table unique power and ability for creating and communicating a new vision for the future.
- 4** It establishes a platform for creating change that helps sustain momentum over time as the community progresses toward Zero Waste.

THE INSIDE-OUTSIDE PARTNERSHIP STRATEGY

Look for these people to be your government or community champions.



Eco-Cycle has used the inside-outside partnership strategy successfully for decades to grow our local recycling programs in a region where the economics are truly stacked against us—our costs to landfill are among the lowest in the U.S. and still less than \$20/ton. So, it certainly wasn't the free market that helped us achieve success in diverting material from the landfill. Our success has come from the partnerships between grassroots citizens' groups, Eco-Cycle and our local governments.

Over the past four decades Eco-Cycle has brought to the table large numbers of citizens demanding change, as well as the technical expertise needed to execute that vision. Government brought its unique abilities to fund and regulate the local marketplace and support nonprofit organizations like Eco-Cycle, so that new programs could be created and supported for the long-term.

Here's how our inside-outside partnership worked to bring curbside recycling to a Colorado town of 20,000 in 2006.

INSIDE-OUTSIDE PARTNERSHIP CASE STUDY: LAFAYETTE CURBSIDE RECYCLING

If you want curbside recycling in most of Colorado, you have to pay extra for it. But not in Lafayette, where local citizens and a nonprofit organization worked together with the local government to bring a curbside recycling program to all residents.

The story begins with Eco-Cycle, a local nonprofit environmental organization that wanted a better, cheaper community curbside recycling system for local residents. Eco-Cycle pulled together some research about how other towns do it, and then met with the Lafayette Public Works Director (PWD). The PWD agreed with the vision Eco-Cycle presented, and suddenly there were two Zero Waste Champions in town, one inside the government (PWD) and one outside (Eco-Cycle).

Eco-Cycle, along with five local citizens who also wanted better recycling, organized a neighborhood house party where each person invited five other people, friends and family, thus resulting in a larger group meeting of over 25 people. At that house party, food, drink and cookies were served, and Eco-Cycle made a presentation about their vision for creating a better local recycling system. After the house party, 15 people officially joined together to create a new citizens' group called "Lafayette Recycles." The group decided that the next step was to host a community meeting in a local church to get more residents to join them. As this was all happening, the Lafayette PWD was in touch with the citizen group and was meeting with the City Manager and explaining what the new group was up to and what they were seeking. The PWD made it clear to the City Manager that he was supportive of the call for a better recycling system in their town.

Partnership case study continued...

Before the big community meeting, members of the citizens' group met individually with Lafayette City Council members at a local coffee shop to explain what they wanted and why. They also invited the City Council members to come to the community meeting and speak in support if they wished. All the City Council members declined the invitation to speak, but many said they would try to attend.

At the community meeting, about 70 people showed up and presentations were made by Eco-Cycle, Lafayette citizens and a few high school students. The energy in the room was very positive, with only one citizen raising a concern about "government interference" with the marketplace. Half the members of Lafayette City Council showed up to listen, and, by the end of the meeting, each of them had stood up to proclaim their support for the project.

The next step was for the Lafayette PWD to present the City Council with a proposal on how to move forward. The Lafayette Recycles citizens' group and Eco-Cycle worked with City staff to develop a proposal. The City Manager worked with the Mayor and other City Council Members to discuss the draft proposal before it was officially presented, which is standard City operating procedure. The proposal was presented and discussed at a City Council meeting, and a public hearing was scheduled for the next Council session.

By this time, the local trash hauling community had learned about what was happening, and they were not in support of it. There were many reasons for that, and Eco-Cycle had an educational session with the Lafayette City Council to discuss the relative merits of the trash industry concerns. By the time the public hearing happened, and the trash haulers protested publicly about the changes proposed, the City Council members felt well-prepared to discuss and, in some cases, to counter their arguments.

At the public hearing, the concerns of the trash haulers and a few Lafayette citizens were aired, but the Lafayette Recycles citizens' group had made sure that supporters of recycling also showed up to speak publicly. For every negative speaker, there were ten positive voices urging the Lafayette City Council to move forward. By the end of the evening, the City Council had made an educated and popular decision to move forward with the new program. The Mayor proclaimed that although they knew not 100% of the community supported this, they were elected to bring the greatest good to the greatest numbers, and the council believes this new recycling program will benefit over 90% of the community, and that makes it worth doing.

The Lafayette City Council, staff and community have been extremely happy with their new curbside recycling program. In 2014, the inside-outside partnership strategy was engaged again to implement a new curbside composting collection program for the community. Today, Lafayette, Colorado has great civic pride in their commitment to building a Zero Waste community. The inside-outside partnership is still strong, and together they continue to create new Zero Waste programs, such as very successful community Zero Waste events.



The foundation of the inside-outside partnership strategy is twofold: a trusting relationship and a common vision and goal. That vision can be as discreet as any of the steps of this Zero Waste Roadmap or as comprehensive as a community Zero Waste plan. The vision and goal of the partnership can evolve over time as the community expands its policies, programs and infrastructure toward Zero Waste.



Learn more about finding or creating a citizens' group and building your inside-outside partnership at ecocyclesolutionshub.org.

The inside-outside partnership is an important relationship for creating change in your community since it will become the reliable source for people to turn as the situation evolves over time. Since building a Zero Waste community takes many years, there needs to be a “home base” within local government where historical actions and knowledge about the journey can be preserved and referenced to help inform the next step proposed by the Government or Community Champion.

CREATING A ZERO WASTE VISION: THE COMMUNITY TABLE

Once you have an inside-outside partnership, it's time to refine your vision for the community. Traditionally that means coordinating stakeholder meetings to hear everyone's input on the vision and its implementation. However, stakeholder groups often stop many good ideas from moving forward because private companies profiting from the status quo lobby heavily against any proposed change. To move forward with the systemic change needed to create Zero Waste communities, we need a new approach that strengthens the community vision so it can't be weakened by the private interests at the Stakeholder Table. We first need the Community Table.

WHAT IS THE COMMUNITY TABLE?

It is an organized process where a small group of people come together for an education and visioning process about improving their community in a specific way. This can be any specific Zero Waste action or the broad goal of creating a Zero Waste community. The process can take just a couple of meetings or longer depending upon the complexity of the issue and the goals of the group. In the context of this *Community Zero Waste Roadmap*, the Community Table would be convened by the two Zero Waste Champions (the government and community champion), and they would each recruit more members from within the government and within the community.

This is not the same as the traditional stakeholder approach because for-profit businesses with a vested interest in the outcome are not at the Community Table. Those who stand to gain financially from the group discussion will get their chance to give their input at the next stage, the Stakeholder Table. Why is this important? The traditional Stakeholder Table process brings three groups to the table: the citizen activists who are pushing for change, the business interests that will be impacted by that change, and the local government that feels obliged to play a neutral role and help mediate the two sides to find an acceptable middle ground. At the Stakeholder Table, the three groups may struggle to find consensus, and, if they do, the resulting action is often just the least controversial solution and not the one that generates the most benefit to the community.

CHANGE STARTS FIRST WITH THE INSIDE-OUTSIDE PARTNERSHIP.

It then expands out to the Community Table where the vision is refined before it reaches the larger Stakeholder Table.



When larger systemic change is needed—as it is for moving toward Zero Waste—then the Stakeholder Table has shown itself to be an inadequate process, since small incremental improvements aren't what is needed. Only the Community Table can create the bold community vision that ignites systemic change, public benefit and sustainable prosperity.

The Community Table is not meant to replace the Stakeholder Table. Rather it is meant to serve as a pre-stakeholder process where people come together to study and envision large-scale local change. Local businesses will get their chance to participate at the Stakeholder Table, but only after the Community Table has completed its process and written up a Zero Waste Vision Plan for community benefit related to the topic at hand.

WHY THE COMMUNITY TABLE IS ESSENTIAL TO OUR ZERO WASTE FUTURE

Is the stakeholder process really broken? Is this just something cooked up to exclude a certain voice from the discussion table?

Here's the reality check: There are many private companies heavily invested in maintaining the status quo and making a handsome profit on burying and burning our discards in landfills and incinerators. While these companies are few in number, their financial stature should not be underestimated—waste is a \$400 billion global industry. That's means there is a lot of money being made in trash. It is understandable that established waste companies wouldn't be too excited about local government teaming up with a group of citizen activists who are aiming to bring fundamental systemic change that could seriously impact their business models. Holding tight to their business model means people are paid to sit at the Stakeholder Table to make sure change doesn't happen.

The Community Table ensures that private profits do not dilute the community's commitment to Zero Waste. It's hard to create a big, aspirational vision if there are voices in the room committed to maintaining the status quo. A community needs time to dream before confronting the conflicting interests and perspectives of the Stakeholder Table.

THE ROLE OF GOVERNMENT

There is one more major difference between the Community Table and the Stakeholder Table: the role of government. The Community Table is not driven by the government alone but is a shared responsibility between the Community Champion and the Government Champion. In other words, the government is not neutral on the issue—they stand in support of Zero Waste because of its economic, social and environmental benefits. This requires a degree of advocacy on the part of local government that some staff and elected officials may find new and uncomfortable, but it is actually an act of leadership that's sorely needed for our cities and towns to address large-scale systemic problems.



ONLINE HELP AND EDUCATION FOR YOUR COMMUNITY TABLE AT [ECOCYCLESOLUTIONSHUB.ORG](https://ecocyclesolutionshub.org):

- Tools and resources you need to prove the value of Zero Waste to your community
- Best practices and case studies from other communities
- Networking with changemakers who have implemented similar programs
- Access to experts and much more

USING THE STAKEHOLDER TABLE TO FURTHER YOUR ZERO WASTE VISION

In the traditional stakeholder process there are usually a limited in the number of seats at the table. If the issue being discussed is a controversial one, trying to balance the “pro” voices against the “con” voices at the table can be a real problem, and even who is chosen for the seats at the table can be a contentious debate. Suddenly, public staff is put “in the middle” and end up just trying to keep the community peace by finding a middle ground. This is not effective leadership, nor does it produce the type of innovative solutions required to achieve beneficial systems change.



The Community Table can create the bold community vision that ignites systemic change, public benefit and sustainable prosperity.

We propose instead that the Stakeholder Table be clearly established as the place that financial interests come together to discuss the Zero Waste Vision Plan written by the Community Table participants. The idea here is that the Community Table goal is to maximize the “community benefit” over anyone’s “private benefit.” Once that is documented in a Vision Plan, then the private benefit players, like for-profit businesses or consultants, can come together to learn and discuss the proposed changes and decide for themselves how, or if, they want to participate in fulfilling the community goals. The Stakeholder Table process should be structured to emphasize innovation and design thinking, which is something that the business world is very good at delivering. The goal is to bring diverse viewpoints together in a constructive, creative way to further the community vision.



SOLUTIONS FOR WHEN THE STAKEHOLDER PROCESS STALLS

Let's say the proposed community system change being proposed at the Stakeholder Table is a new curbside recycling program. Then a local hauler who collects only garbage has a choice: either fight the proposed change or join the effort and expand their business plan to include collecting recyclables.

In larger communities where there may be many private service providers in the waste industry, this approach can work since the competitive nature of the marketplace will enable change. However, since there are often only a small number of trash haulers in any town, there is no guarantee that the companies won't just collude with each other and undermine this step toward Zero Waste. This is not an idle thought since history has shown that the handful of "Big Trash" companies that dominate in the U.S. have, in the past, been found guilty of collusion and unfair business practices. But for now, we'll assume the best, while always keeping our eye on the possibility of funny business.

In many smaller communities, there may only be one trash hauler, so there is no competitive environment, and the situation is much more difficult. Without competition, what reason would a private company have to change their successful business plan? When there is no competition in the private sector, then the only remedy left is for the public sector to create some. That can be accomplished in one of two ways in the waste industry: (1) the local government steps in and creates a municipal service that offers the program desired, such as curbside recycling collection; or (2) the local government creates a Public Private Partnership (PPP) where a private sector company offers the service desired under a negotiated contract with a limited profit rate, such as cities commonly do with "investor-owned electric utilities" where the profit margin guaranteed is around 10%.

Taking a new approach to the stakeholder process is a critical step for local government and citizen advocates. Your community Zero Waste Vision Plan, built off of this *Community Zero Waste Roadmap*, should be a public document that holds both the citizens and the government accountable for staying on track. When the community is actively kept in the dialogue with public staff, the community support will remain strong for new policies or investments. But when the community loses sight of why city staff is taking action, then it's easy to get derailed by annual budget fights and shifting local priorities. The public staff is less likely to continue to support new policies or allocate funding for Zero Waste projects if the citizen involvement goes away. It's in that void that the traditional waste business sector will exert quiet pressure to maintain the status quo and slowly squelch the movement toward systemic change.



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Working to Build Zero Waste Communities

GET MOVING: SIX STEPS TOWARD ZERO WASTE

Are you ready to dig in? Moving toward Zero Waste boils down to six key steps:

1

Get inspired by Zero Waste and understand what it takes to get there by reading—and going back to—this Roadmap and diving deeper online at ecocyclesolutionshub.org.

2

Share this vision and find other Zero Waste Champions to join you. If you are a citizen, you'll need to first find or create a citizens' group and then partner together with a public staff member or elected official (your Government Champion). If you are a government staffer or elected official, you'll need to find a Community Champion or citizens' group to support your efforts. This is the start of the "inside-outside" partnership strategy for community change.

3

With your new partner, assess where your community is on the road to Zero Waste and prioritize your next steps.

4

Gather key community members in a Community Table process to create a Zero Waste Vision Plan. Declare what goals are desirable for your community and on what timeline.

5

Create a Stakeholder Table and invite those local businesses and others with a special interest in the waste issue to discuss how they will participate to help fulfill the Community Table's Zero Waste Vision Plan.

6

Work collectively to implement your Zero Waste Vision Plan, returning to the Community Table and your vision as you move forward with new Zero Waste policies, programs and infrastructure.

We've laid this out neatly in six steps, but let's be honest—creating community change is hard, not only for Zero Waste but also for a myriad environmental and social causes. That's why we've built an online platform to support you and connect you with other Zero Waste changemakers across the country.



**With help from experts and peers,
you'll never feel like you're going it alone.
Join us at ecocyclesolutionshub.org.**



CONCLUSION

Zero Waste is a journey, and we hope you choose to join us. Our goal with this Roadmap is to help your community get moving on the Zero Waste path and take measurable steps forward. The key is to just get started, no matter where you are, because the sooner we choose Zero Waste, the faster we all move in the right direction for our planet and our future.



GAIA is the leading global organization fighting against waste incineration. They are one of hundreds of organizations around the globe working to build a healthy, sustainable, prosperous and resilient future through Zero Waste.

Adopting Zero Waste personally will touch many aspects of your daily life because it's a mindset, a way of living, a design principle, a personal ethic and a community responsibility. But, most importantly, it's a life-affirming and hopeful example on how to live in a healthy, joyful and constructive way.

Adopting Zero Waste as a community means expanding "the power of one" so that eventually millions of people will live where the public systems are set up to support our personal convictions to live within our means on our one shared planet, Earth. Simply by replacing the trash can with recycling and composting bins we are transforming the community system and enabling everyone to participate.

Zero Waste is one of the fastest, easiest and most cost-effective ways our local communities can take meaningful action to create a more sustainable, resilient and prosperous world for future generations. Get started today! Your children and grandchildren will thank you for it.

ACKNOWLEDGEMENTS

There are a lot of people around the world who are working hard to end the era of wasting, and I count myself lucky to stand with the pioneers of the U.S. Zero Waste Movement who, in the mid-1990s, proclaimed a daring new vision for the future. We stood on the shoulders of recycling pioneers like Pete Grogan and Jerry Powell, but we wanted to go beyond recycling. We were controversial and suffered the full cycle of being laughed at, ignored, and then attacked for the first ten years. But then something shifted, and the truth about the pursuit of a waste-free world emerged as something that was almost a “Duh!” moment—of course we should be shooting for zero! As one of the early leaders Gary Liss said, “If you’re not for zero waste, how much waste are you for?”

I want to thank my friends with whom I’ve worked closely with, who I care deeply for, built a career with, and will always appreciate. The following people have worked tirelessly to bring the Zero Waste vision into reality and offering all of us, especially the next generation, hope for building a better world. A list like this is dangerous because I know I’m leaving off people that should be on it, and for that I apologize.

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From left to right: Robert Gedert, Kate Bailey, Eric Lombardi, Clarissa Morawski, Peter Slote, Richard Anthony, Jeffrey Morris, Resa Dimino, Dan Noble, Jack Macy, Donna Barlow Casey and Marti Matsch.

In gratitude to all the rainbow warriors and planet mechanics of the world,

Eric Lombardi

Kate Bailey