



**RESILIENT
TOGETHER**

OUR BRIDGE TO A STRONGER TOMORROW

RESILIENT TOGETHER CLIMATE ACTION TOOLKIT

FOR RESIDENTS

UPDATED 04.14.2021





PURPOSE OF THIS TOOLKIT

This toolkit brings together tips, how-to guides and financial resources to help your family prepare for climate change.

You can reduce your utility bills and plan for the future, while also helping your neighbors and communities to thrive, by lowering your carbon footprint, reducing waste, conserving resources, and investing in our local economy.

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WHAT'S INSIDE

Learn about how climate change impacts us in Beverly and Salem, then explore five resilience topics. Each Topic includes:

1.

WHY the topic is important – both how our current behaviors are driving climate change and how our homes and families are being affected.

2.

WHAT you can do personally – strategies that will reduce carbon pollution, reduce your bills, and increase resilience in the community.

3.

HOW you can take action at home right now – look for tools, quick-start strategies, and tips especially for renters.



TOOLS – guides and resources to help you create a sustainable home.



START HERE – the quickest and simplest ways to start taking action. The full checklist of basic strategies is on page 20 for easy printing.



JUST FOR RENTERS
– tips to live sustainably and save money when you don't own your home.

As a resident, you have the power to make choices that will help secure this safe and sustainable future. This toolkit provides resources and education on simple shifts you can make. Join us!

WELCOME



RESILIENCE (NOUN)

The ability to prepare for, recover from, and adapt to climate impacts.

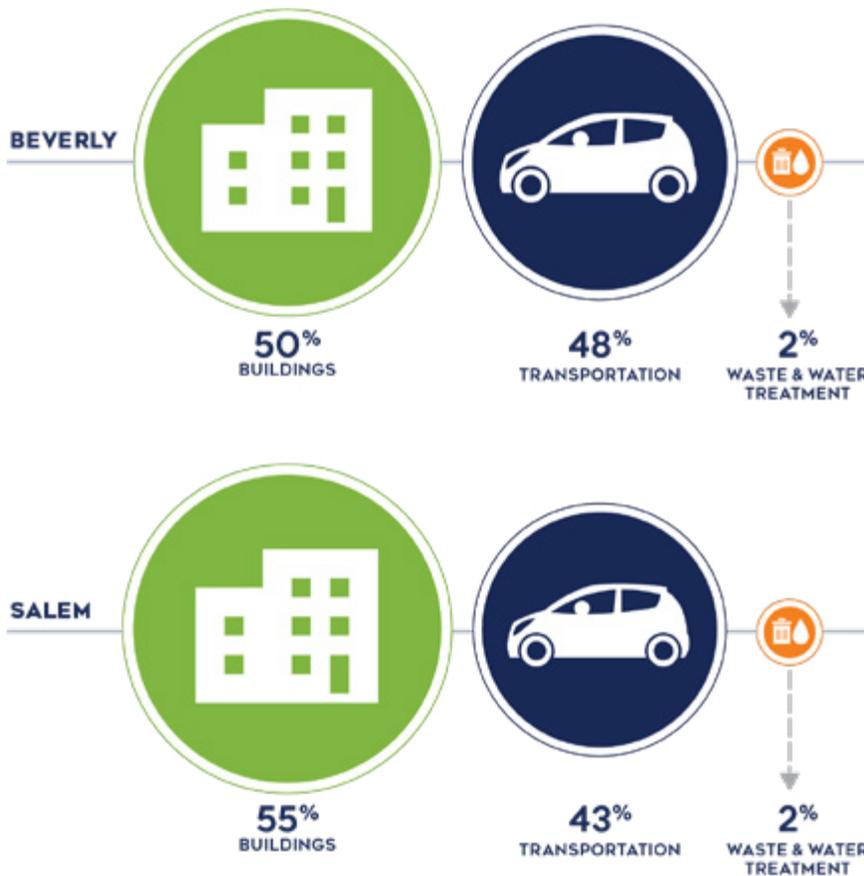
Beverly and Salem have come together to develop Resilient Together, our plan to take collective action in the face of the climate crisis.

We are embracing a proactive, collaborative approach to mitigating climate change and building resilience to its impacts, ensuring that we remain inclusive and thriving communities for all residents and businesses for hundreds of years to come.

We all need to work together to reach our collective goal of carbon neutrality by 2050. Our Cities are leading by example, with bold policies and programs to reduce greenhouse gas emissions and build community resilience to intense storms, sea level rise, droughts, floods, and heat waves. As a resident, you have the power to make choices that will help secure this safe and sustainable future. This toolkit provides resources and education on simple shifts you can make. Join us!

We studied which activities in our communities contribute the most greenhouse gas emissions, to see where we need to make the most changes. In both Beverly and Salem, energy used in our buildings were the biggest source of climate-warming GHGs. Transportation was the second-biggest source of emissions. The resources in this toolkit will help you reduce your own emissions in these two major categories, as well as in water, wastewater, and waste.

Community Emissions by Sector



WHAT ARE GREENHOUSE GASES?

Greenhouse gases (GHGs) are essential to life on Earth. They provide a “blanket” in our atmosphere, trapping heat and regulating the Earth’s temperature. However, by burning fossil fuels to power our homes, businesses, and automobiles, we have increased the concentration of GHGs in the atmosphere to levels that have led to disruptions in the Earth’s climate.

1 U.S. Climate Resilience Toolkit. (n.d.). Retrieved October 29, 2020, from <https://toolkit.climate.gov/image/762>

2 National Oceanographic and Atmospheric Association. Storm Events Database. 2016

3 Climate Change: Global Sea Level: NOAA Climate.gov. (2020, August 14)

4 NOAA National Centers for Environmental Information - State Climate Summaries

- Switch the three most-used lights in your home to LEDs, which use 80-90% less energy than incandescent.
- Schedule a [free energy assessment](#) – renters too!
- In Salem, opt into PowerChoice Plus for 100% New England renewable energy.



ENERGY

Greenhouse Gas (GHG) Usage in Residential Buildings



Homes use a lot of energy! Residential buildings in Beverly and Salem account for more than a quarter of our greenhouse gas emissions (GHGs). One of the greatest opportunities to reduce our carbon footprint also increases your comfort at home, lowers your energy bill, and reduces strain on our electrical grid - energy efficiency. Energy efficiency simply means using less energy to perform the same task – eliminating energy waste by swapping in more efficient lights and appliances, upgrading heating/cooling systems, insulating walls and ceilings, and blocking air leaks.

WHAT IS AN AIR-SOURCE HEAT PUMP?

While traditional heating systems burn fuel to create heat, a heat pump works by moving heat into or out of a building, using electricity to operate. Advances in technology over the past few years have made air-source heat pumps an efficient source of heating in cold climates like Massachusetts. If your home uses an electric heating system, **heat pumps can reduce your electricity use for heating by approximately 50%.**

Most homes in Beverly and Salem are heated with fuel oil or natural gas – switching to electric heat like an air-source heat pump will lower your carbon footprint immediately and your home will continue to get greener over time!



JUST FOR RENTERS

MassSave offers no-cost home energy assessments for renters too!

Assessments include free improvements like LED lightbulbs and low-flow showerheads, plus other strategies to cut your energy costs.

If you rent in a building with 4 or fewer units, you can schedule an [assessment](#) today!

If your building has 5 or more units, your entire building will need to be assessed to optimize energy and water savings. Let your building manager or landlord know about [this opportunity](#) for cost savings.

ENERGY EFFICIENCY

A smart first step for improving energy efficiency is a visit from a home energy auditor. A [home energy assessment](#) will find low-cost ways to reduce your energy bills, and even some changes that cost nothing!

Upgrade your home's [insulation](#) and air sealing to decrease your energy use and costs and increase home comfort year-round. These steps can save ~15% of heating and cooling costs annually.¹ For even more savings, install a programmable [thermostat](#).

Switch to [LED bulbs](#), which use 80-90% less electricity than incandescent lightbulbs. [Advanced power strips](#) can also cut out the sneaky power drain from electronics like TVs and game systems.

Replacing appliances? This is a great time to consider energy efficiency. [Efficient washing machines](#), for example, can reduce energy use by 25%. Always look for the EPA ENERGY STAR label.



TOOL: MASS SAVE



Mass Save (www.masssave.com) is a utility-sponsored program that helps residents save energy and money through rebates, incentives, and free equipment. There are special programs and extra [financial support](#) for lower-income households. Mass Save promotions change regularly, so start with their [online assessment tool](#) or schedule a [free home energy assessment](#) to get personalized, up-to-date recommendations for energy saving opportunities. Below are highlights of the many rebates and incentives they offer.

Financing: The [Mass Save HEAT Loan](#) offers interest-free financing up to \$25,000 for energy-efficient home upgrades like heating and water heating equipment, central A/C and heat pumps, insulation and more.

Heating, Cooling, and Water

Heating: Rebates are available for installing [electric heating and cooling](#), [electric heat pump water heaters](#), replacing [gas/oil/propane water heaters](#), and more!

Smart Energy Use: Install a [programmable thermostat](#) to save on energy costs, or go with a smart, connected thermostat to earn even more cash back for reducing your electric use during high energy demand with the [ConnectedSolutions](#) program.

Looking for more ways to lower your energy costs? Check out the full list of [Mass Save product rebates/incentives](#).



JUST FOR RENTERS

While some energy upgrades may not be possible if you rent, there is still plenty you can do. Think of small actions to conserve energy – these add up to large benefits!



Switch the three most-used lightbulbs in your home to LEDs.



Install a programmable thermostat (rebates available) to keep your home comfortable throughout the year.



During the winter, open the shades to let in outdoor light to naturally warm your home. In the summer, do the opposite to help keep your home cool and comfortable when it's hot outside.



Make sure you're opted in to community choice aggregation! This clean energy strategy is available to anyone who receives an electric bill, no matter home-ownership status.

With [community solar](#), you can subscribe to a share of a solar farm—or other types of renewable energy projects near you. If you have an electric bill, you can support renewables without installing anything on your property – and save money!

CLEAN ENERGY OPTIONS

Once you have minimized your energy waste, it may be time to go straight to the source! Renewable energy, like wind and solar, are emissions-free ways to generate electricity, and every year more of our region's power is coming from renewables instead of fossil fuels. Renewables are affordable and reliable, and pay for themselves! Household savings after 20 years of solar panels can reach \$20,000!² Homeowners interested in installing solar can use National Grid's [Massachusetts Solar Marketplace](#) to learn your options and compare quotes from pre-vetted solar installers.

Even better, you don't need to wait for the energy grid to change gradually – you may already be using 100% renewable electricity in your home! Beverly and Salem both offer aggregation options through National Grid. Community choice aggregation is an electricity program run by your City, that makes renewable energy available to city residents and businesses, while also offering stable, predictable pricing.

TOOL: COMMUNITY CHOICE AGGREGATION



[Salem PowerChoice](#) launched in 2019, and all National Grid customers in Salem were automatically enrolled unless they opted out. Your basic service, PowerChoice Standard, includes 100% renewable energy, sourced outside of New England. You can champion local clean energy by opting up to PowerChoice Plus, which provides 100% from New England renewable energy projects, and supports local jobs and renewable energy growth in our region.

[Beverly Community Electric](#) plans to launch in winter 2022.

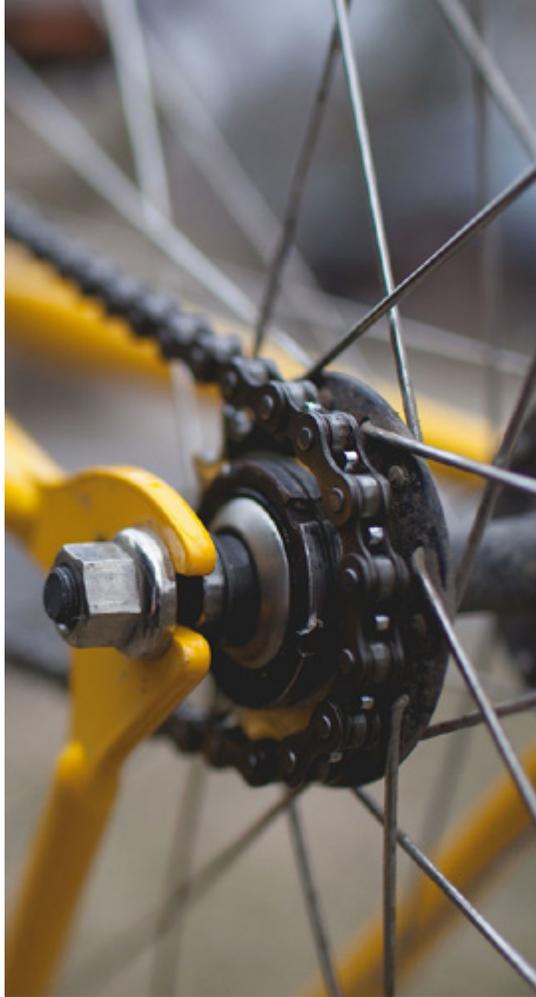
An electricity supplier selected by Beverly buys cleaner electricity for you

National Grid continues to deliver your electricity

The City of Beverly

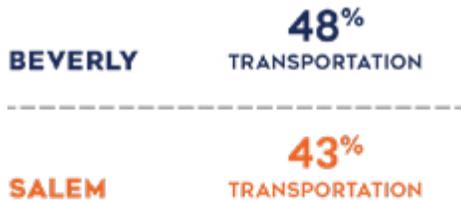


- Bike or walk to some of your favorite destinations around town.
- Heading to Boston? Take the commuter rail instead of your car.
- Take a ride on our local public transit options, the [Salem Skipper](#), [CATA bus](#), and [The Ride](#).



TRANSPORTATION

GHG Emissions Caused by Transportation



Transportation accounts for nearly half of both Cities' total emissions. Alternative transportation modes are critical to reducing GHG emissions while creating cleaner, safer, and more connected travel for you and your family. In both cities, these emissions often result from just one person traveling alone in a personal car. As residents, we can reduce community emissions significantly by switching to less carbon-intensive transportation modes.

TOOL: NORTH SHORE TMA



The North Shore Transportation Management Association offers a menu of [programs](#) to help people in Beverly and Salem find low-carbon commuting options.



TRANSIT

Beverly and Salem both offer public transit options that can help you get around the cities. See if you can use the [Salem Skipper](#), [CATA bus](#), or [The Ride](#) to get to your next destination! Need to get to Boston? Consider taking the commuter rail instead of your car.

TOOL: BIKING AND WALKING ROUTES



Use MPAC's [Trailmap](#), an interactive map of paths and bike lanes, to find routes to your next destination!

ACTIVE TRANSPORTATION

Active transportation is simply using your bike, skateboard, or feet to get where you want to go.

Beverly and Salem both have Complete Streets policies to make our roads safer and easier for users of all ages, abilities, and modes to get around. Complete Streets could include design features like bus lanes, bike lanes, sidewalks, accessible signaling, and curb extensions.

Could you bike or walk to your next destination? Maybe so, knowing that Salem has approximately seven miles of paths around the City!

TOOL: EV FINANCIAL INCENTIVES



Massachusetts offers [rebates](#) for purchasing or leasing an electric vehicle.

You can get a big [rebate](#) on your federal taxes when you purchase a new EV.

ELECTRIC VEHICLES

Electric vehicles (EVs) are becoming more affordable, accessible, and most car manufacturers now carry electric and plug-in hybrid models. There are new public charging stations being added all the time by the Cities of [Beverly](#) and [Salem](#) as well as third-party companies.

TOOL: EV CHARGING STATION LOCATIONS



Use [PlugShare](#), an EV Charging search engine to find the most convenient place to charge your EV!



- ❑ Swap out an old showerhead for a [low flow version](#), to reduce water waste.
- ❑ Only run the dishwasher and clothes washer when they are fully loaded.
- ❑ In your yard and garden, water in the morning to minimize evaporation.



DID YOU KNOW?

Salem's wastewater treatment facility, which serves multiple municipalities, processes 1.8 million gallons per day, with 29 miles of pipes to get the job done! Read up on local water treatment [here](#).



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WATER

As climate impacts intensify, natural resources such as our water source, the Ipswich River, can be strained by water quality threats and drought. Water and energy are connected too - energy is used to treat and distribute water, as well as to heat in your homes. Energy is also needed to treat wastewater leaving our homes and stormwater running along our streets.

If your home has leaks, you could be wasting up to 180 gallons per week, or 9,400 gallons of water annually. That's equivalent to the amount of water needed to wash more than 300 loads of laundry!³ Conserving water, through water-efficient appliances and fixtures, can save money on your water and energy bills.

Using water efficiently helps to:

- › Save money from energy and water bills
- › Minimize excessive outdoor water waste
- › Keep our ecosystems healthy by reducing our demand on water supply
- › Reduce community wide emissions



SUSTAINABLE LANDSCAPING BENEFITS

Cost-Effective: These landscapes are self-sustaining, need less tending than traditional landscapes, saving you time and money in the long run.

Fewer Pesticides: By using native plants and trees with their own defenses against pests, sustainable landscapes don't need harsh pesticides to survive.

Less Watering: Sustainable landscapes do great with very little watering because they're designed with local rain levels in mind.

Consider Grass Alternatives: If you're tired of mowing the lawn, ditch grass altogether. Moss, ground cover, or even turf are great no-mow lawn solutions. Consider [xeriscapes](#) -- drought-tolerant gardens -- designed for sustainability and resilience with New England's climate in mind.



WATER SAVING TIPS

Take time to ensure leaks and drips don't spike your water bill.

INDOORS

- > Swap out an old faucet or showerhead for a low flow [version](#), which can reduce water waste.
- > Shorter showers save money! If you like long showers (20 min), try to take a shorter one (5-10 mins) a few times a week!
- > Replace inefficient toilets with [WaterSense](#) labeled models. The average family can reduce water used for toilets by 20 to 60%—that's nearly 13,000 gallons of water savings for your home every year!⁴ That's about \$150 a year!
- > Only run the dishwasher and clothes washer when they are fully loaded. Use a dishwasher instead of handwashing dishes – the EPA estimates they use half as much water.

OUTDOORS

- > Simple [shifts](#) in outdoor watering practices can save money and water! Water in the early morning to reduce the amount of evaporation and avoid mid-day or night watering! Learn more [here](#).
- > Use [rain barrels](#) to collect rainwater to water plants, which can be purchased by Salem residents at the City's Department of Public Works.
- > Include native species when gardening to support a thriving ecosystem and community resilience. Learn about Massachusetts's local varieties [here](#).

TOOL: WATERSENSE



The EPA's [WaterSense program](#) guide has tips to reduce outdoor water use, including landscaping tips, [drought-tolerant plant suggestions](#), [watering tips](#), and [sprinkler maintenance recommendations](#).



- Join a local Buy Nothing group on Facebook!
- Shop at farmers markets to support the local economy and cut down on food packaging and transportation.
- Learn the ABCs of recycling right with guides for [Salem](#) and [Beverly](#).



WASTE REDUCTION

Waste Disposed of per Person per Day (lbs)



BEVERLY

3.4 lbs

PERSON/DAY



SALEM

3.1 lbs

PERSON/DAY



US AVERAGE

2.9 lbs

PERSON/DAY

Beverly and Salem's waste goes to an incinerator [facility](#) in North Andover and helps generate power for the local utility. While this is a more energy-efficient and climate friendly solution to dumping waste in landfills, there are still emissions generated through incineration, and our goal as a community is to reduce the amount of waste delivered to the incinerator in the first place.

Our communities can save time, energy, money, and, of course, raw materials when we reuse or recycle instead. Other benefits include:

- > Reduce impacts, including GHG emissions, from the extraction, production, transportation, and disposal of materials
- > Support a healthy ecosystem by using fewer natural resources
- > Save money by reusing or repurposing items

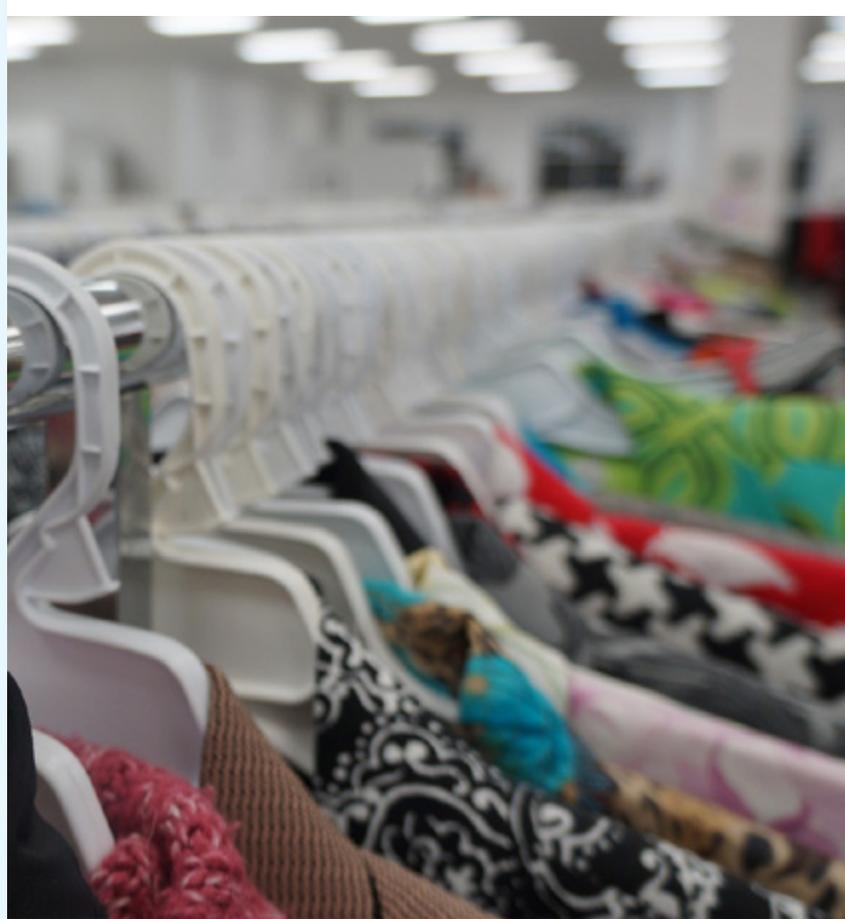
Both Salem and Beverly generate more waste per person per day than the U.S. average. Reducing, recycling, and reusing will help lower these rates.



JUST FOR RENTERS

There are lots of ways you, as a renter, can minimize your waste!

Discover your local thrift shops, invest in reusable bags, and buy local - all simple steps to reduce waste. Composting is also a great way to cut down on food waste, and options like Beverly's city-run program or Salem's discounted bins through Black Earth Compost make composting possible for many renters!



TOOL: LIBRARY OF THINGS



Explore [Beverly's Library of Things](#), a collection of nontraditional items you can borrow from the Beverly Public Library. It's free. All you need is a library card!

TOOL: BUY NOTHING GROUPS



Join these groups (on Facebook) or launch your own!

[Buy Nothing \(West Beverly\)](#)

[Buy Nothing \(North Beverly\)](#)

[https://
buynothingproject.org/
start-a-group/](https://buynothingproject.org/start-a-group/)

TIPS TO REDUCE CONSUMPTION

The simplest way to keep waste out of the incinerator is to consume less. Below are some easy ways to reduce your consumption.

- > **Reduce packaging and single use plastics.** Reusable bags, straws, utensils, and cups are easy ways to cut out single use plastics. Did you know that less than 9% of all plastic gets recycled?⁵ Switching to reusable items can reduce plastic waste!
- > **Buy local.** Locally produced products have not been shipped across the country or world, which means they have a much smaller carbon footprint.
- > **Trade with neighbors.** Build community and reduce clutter by swapping toys, Halloween costumes, and books with neighbors.
- > **Buy secondhand.** This can turn up some unexpected treasures and especially makes sense for growing kids!

**TOOL:
NOT SURE WHAT
CAN BE RECYCLED?**

 For specifics on what each city collects, refer to guides for [Salem](#) and [Beverly](#). "Recycling right" and avoiding contamination is important to keep recycling costs low. For help recycling almost everything else, check out [Green Salem's Recycling A-Z guide](#).

RECYCLING

Making a habit out of recycling is an easy way to help the environment and make sure Beverly and Salem spend their resources on the things you value most.

Recycling is the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products. Recycling benefits the community and environment by reducing emissions, saving money, creating jobs, and preserving natural resources.



NO PLASTIC BAGS!
DO NOT BAG
Recyclables



Collecting recyclables in a bag?
Empty the contents into the container.
Return plastic bags to retailers.
Recycle to Smart
Thank you for recycling. Funded in part by MassDEP.
Min. 90% recycled paper.



**NO STYROFOAM
IN THE RECYCLING**
**No Styrofoam
of any kind.**



RECYCLING FAST FACTS

50%

of the plastic we use is used just once and then thrown away.

1,200 LBS

of waste, on average, is disposed of by Beverly and Salem residents each year!



Enough plastic is thrown away each year to encircle the earth four times!

BEVERLY

29%

WASTE DIVERTED INTO RECYCLING (2019)

SALEM

24%

WASTE DIVERTED INTO RECYCLING (2019)

By continuing to add more to our recycling streams, we can increase this percentage, while reducing our total waste.

COMPOSTING

Did you know composting can divert as much as a third of household waste away from the incinerator? The process also creates nutrient-rich soil and is an effective natural alternative to chemical fertilizers.

- › Beverly offers a [free compost bin](#) and trash bill rebate for residents and business owners who sign up for a curbside composting service, while Salem has [discounted compost bins](#) and supports curbside through a company called Black .
- › If you have the space for it, setting up a backyard composting system is easier than you think. This [Earth Easy guide](#) provides all the information you need to pick the right composting system, learn what can and cannot be composted, and get tips on how to create the richest soil. Choosing an enclosed system will help ensure pests and smells are not an issue. Consult the [MassDEP's composting guide](#) for more information.
- › Salem has its own [Transfer Station](#) that allows residents to recycle yard waste, keeping it out of the incinerator and nourishing our community parks.



URBAN AGRICULTURE

As a resident of Beverly or Salem, there are many opportunities to source local food! Supporting our local food systems not only reduces transportation emissions, but supports thriving natural resources and ecosystems, enhances our local economy, and, most importantly, local food is healthy and tastes great!

- › **Farmers' Markets:** Both Cities host farmers markets throughout the warm months. Stop by the [Beverly](#) or [Salem](#) farmers market for some locally grown produce and for further opportunities to get involved in local sustainability efforts.
- › Support markets and “farm-to-table” restaurants that sell locally-sourced food.
- › **Grow your own!** If you want to try your hand at growing your own herbs or vegetables, check out this handy [guide](#) for when to plant!
- › [Beverly Bees](#) is a catch-all place for all things pollinator! Host a hive in your backyard, purchase locally made beeswax candles and soaps, or contact for bee removal services that are sustainable and humane. They also have a store in Salem!

- Talk with your friends, family, and neighbors about climate change and preparing for its impacts.
- Gather supplies for a simple [preparedness kit](#) for your home.
- Stay informed. Sign up for [Beverly](#) and [Salem's](#) emergency alert systems.



PREPARE OUR COMMUNITY FOR EXTREMES

With weather becoming less predictable, it is essential to be prepared for weather related emergencies. Thinking ahead will help us keep ourselves, our pets, and our families safe and helps the community as a whole by freeing up City resources to help those who are most vulnerable. **It makes our community more resilient, improves public health and safety, can reduce impacts of hazardous events, and save money by preparing now rather than later.** The following resources will help you create and communicate your plans with your household and will ensure you are never caught unprepared during any kind of emergency.

TOOL: CREATE AN EMERGENCY PLAN



Guided by Ready.gov resources, talk with your household and plan for any kind of emergency. [Beverly](#) and [Salem](#) both have emergency alert systems: Sign up to be informed for timely updates on local heating/cooling stations, emergency routes, and more.

TOOL: MAKE A PREPAREDNESS KIT



For storm events, extreme weather, and more, the Federal Emergency Management Agency (FEMA) recommends being ready to survive for 72 hours in your home without power. Creating a [preparedness kit](#) with all the essentials will ensure you are ready for an emergency.



When you use this toolkit to save money, weatherize your home, save more water, reduce waste, and switch to renewable, reliable energy, **our community will be more resilient and prepared for climate threats, extreme weather, and other stress.**

COMMUNICATE WITH YOUR FAMILY AND FRIENDS.

If you have kids, talking about climate change and disasters can be a daunting task. Be honest and focus on solutions when talking with young children. Ready.gov has also created resources to help prepare kids for disasters in a non-frightening way.

If you've already taken steps to make your home more sustainable, here are some ways to channel that energy toward your community:

- › Host a movie night for your family and friends and show a climate change documentary.
- › There are countless books on climate change and resilience in different genres! Start a book club and bring the conversation local.
- › Share what you've learned with neighbors.
- › Start a phone tree in your neighborhood to support each other during times of stress.

TOOL: FRIENDS AND FAMILY GUIDE



Climate conversations can be difficult. Our [“Engaging Friends and Family Over the Holidays” guide](#) gives tips on starting conversations, finding common ground, and overcoming common challenges.

ENDNOTES

- 1 https://www.energystar.gov/campaign/seal_insulate/methodology
- 2 <https://www.mentalfloss.com/article/75525/how-long-it-takes-11-big-purchases-pay-themselves#:~:text=The%20savings%20you%20earn%20by,adding%20value%20to%20your%20home.>
- 3 <https://www.epa.gov/watersense/statistics-and-facts#>
- 4 <https://www.epa.gov/watersense/residential-toilets#tab-2>
- 5 <https://plasticoceans.org/the-facts/>



PRINT THIS PAGE

START HERE! CHECKLIST

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WASTE REDUCTIONS

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PREPARING FOR EXTREMES

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- Stay informed. Sign up for Beverly and Salem’s emergency alert systems.



STAY CONNECTED

Your local government supports you in adopting a more sustainable lifestyle. Stay up to date with *Resilient Together* and all Beverly and Salem’s sustainability efforts.

FOLLOW US!

Planning Efforts:   

City of Salem:  

City of Beverly:  

OR VISIT: [Resilient Together Dashboard](#)

Questions? Comments? Stories to share?

Reach out via email to:

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