

How to decrease your carbon footprint and environmental impact

Based on *Green Living
Handbook* and *Carbon Diet*
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**The average American generates about 16-20
tons of carbon dioxide per year.**

The average European generates 6-10 tons.

The average African generates .13 tons.

This guide is intended to help you assess where you can make changes in your life to decrease your environmental impact. Changing behaviors and lifestyle can take time, effort, and, sometimes, money.

Every action helps.

Pick one or two ideas to get started on your own journey to support the environment!

We have included:

- Data to help you learn more about the impact of our behaviors
- Links and telephone numbers for local resources
- Links to useful articles and websites

Focus Sections

This list is set up by six focus sections and has the easiest and lowest-cost ideas at the top of each section with the more expensive and/or time-consuming at the bottom.



Home Energy



Transportation



Food



Waste



Water



Environmental Contamination



Community Engagement



Xcel Energy Resources:

- Order an Energy Audit from [Xcel](#) for your home for \$150. This audit includes changing light bulbs to LEDs, weather-stripping doors, and wind-testing the house for leaks. Call 1-800-895-4999 for details and to schedule an audit. You can also have an audit done by an energy contractor approved by Xcel. Xcel offers [rebates](#) for certain home improvement projects based on the results of the audit.
- Purchase renewable energy as part of your [Xcel Energy package](#).

Heating

- Set thermostat no higher than 65-68 degrees Fahrenheit during cold months.
- Install a programmable thermostat. Turn temperature down at night when sleeping and up during the day when no one is home.
- Seal air leaks by weatherizing with weather strips, door sweeps, caulking, and insulation for outlets/ light switches.
- Tune-up your furnace on a regular basis and replace the air filter every month or so.
- Insulate and air-seal attic ([See Xcel for a list of contractors](#)).
- Install shades or curtains that insulate windows when closed.
- Install storm windows or double-paned energy-saving windows.
- Install a high-efficiency furnace and/or add a heat pump to your system.

Energy Facts

Heating is the largest energy expense in most homes.

Cooling

- Pull shades/ draw curtains during the day and open windows in the evening at the time that the outside air is cooler than inside.
- Use fans.
- Install a whole house fan, an evaporative cooler, or a heating/ cooling pump.
- If you do use AC, purchase an [Energy Star](#) rated model and turn off when you are not at home and during cooler hours of the day. Replace the filter on a regular basis.



Home Energy (Continued)

Water Heating

- Set water heater at no higher than 120 degrees Fahrenheit.
- Set water heater on "pilot" or "off" when you are on a trip.
- Insulate your water heater if it is electric.
- Have water heater serviced on a regular basis.
- Install a high-efficiency, solar, or tankless water heater.

Appliances

- Plug appliances into a power-strip and turn completely off when not in use. Many appliances "leak" energy even when not in use through operating a clock or staying connected to the internet.
- Have your computer use energy-efficient sleep mode and turn completely off when not in use for more than two hours.
- If available, use ECO or Energy-Saving setting for running the dishwasher.
- Clean the condenser coils on refrigerator twice per year.
- Only wash full loads. Wear your clothes more than once and only wash them when dirty.
- Wash your laundry on cold.
- Dry on a clothesline or drying rack.
- Replace your washer, dryer, and other appliances with [Energy Star rated appliances](#). Energy Star washers use about 25% less energy and 33% less water and dryers use 20% less energy.

Energy Facts

90% of the energy a washing machine uses goes to heating water.

One calculation estimated that a household could cut its emissions by [864 pounds](#) of carbon per year by washing four out of five loads in cold water.



Home Energy (Continued)

Lighting

- Turn off lights when not in use.
- Change light bulbs to LED, particularly any lights used more than 3 hours per day.

Solar

- Purchase solar panels in a [solar farm/ garden](#).
- Join the [Denver Solar Co-op](#). Learn more through [Solar United Neighbors](#).
- Install [solar](#) on your house/ garage roof.

Yard and Lawn Care

- Plant trees. In addition to drawing carbon out of the atmosphere, trees can cool your home during the hot summer months.
- Decrease the amount of lawn and replace with low-water perennials. [Denver Water](#) offers a garden-in-a-box to help you get started.
- Plant native plants to support pollinators and birds.
- Use a push mower or electric mower.
- Use a broom and rake instead of a blower
- Use compost to keep your plants and lawn healthy. Remember to aerate. Use mulch.

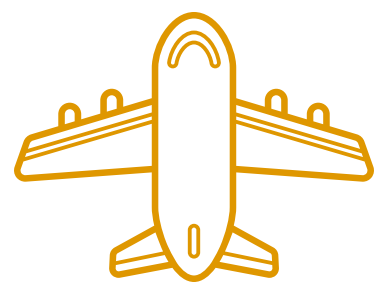
Energy Facts

LEDs use 80 - 95% less energy and last ten years or more.

Gas mowers produce at least 5% of our air pollution.

According to a Swedish study, using a gas mower for one hour has the same carbon footprint as a 100-mile car trip.

The EPA estimates that over 17 million gallons of fuel are spilled each year filling lawn equipment. That's more than the oil spilled by Exxon Valdez!



Transportation

Daily Commute

- Use alternative transportation such as [RTD](#) or a bicycle.
- Decrease mileage by planning and combining trips that involve car travel.
- Check tire pressure on your car once per month.
- Turn car off when you are waiting rather than idling.
- Drive at steady speeds and slow down before stops.
- Fill your tank in the evening and stop on the first click.
- Tune-up car on a regular basis.
- Purchase a fuel-efficient; hybrid; or electric vehicle.
- Consider living car-free.

Air Travel

- Decrease air travel.
- Purchase carbon offsets when you fly.

Transportation Facts

Transportation is the largest source of planet-warming greenhouse gases in the U.S. and the bulk of emissions comes from cars and trucks.

Contrary to popular belief, restarting your car does not burn more fuel than leaving it idling. In fact, idling for just 10 seconds wastes more gas than restarting the engine.

Aviation contributes about 2% of the world's global carbon emissions.

Only 20% of people on the planet travel by air.

One third of all air traffic globally takes place in the U.S.

One cross-country flight produces a minimum of 1 metric ton of CO₂.

If you skip 1 or 2 flights per year, you can reduce your footprint by 10-20%.



What you eat makes a difference

- Reduce how much beef, pork, lamb, and chicken you eat. Beef has the highest environmental impact, often estimated as five times higher than chicken. Cheese and some shellfish (such as farm-raised shrimp) also have a higher environmental impact than plant-based foods.
- Use the [Seafood Watch](#) website sponsored by the Monterey Bay Aquarium to check for sustainability of fish and sea food.
- Purchase locally grown food.
- Grow your own food!

Food Facts

The average American eats 215 pounds of meat per year.

According to a [study in the journal Scientific Reports](#), if everyone in the country reduced their consumption of beef, pork, and poultry by a quarter and substituted plant proteins, we'd save about 82 million metric tons of greenhouse gas emissions per year.

A [new study](#) has found that the environmental impact of beef production is significantly worse than that of dairy, poultry, pork, and eggs. According to one expert, cutting down on red meat would actually have more impact on carbon emissions than abandoning cars. The study has been published in [Proceedings of the National Academy in Sciences](#).

A study published in [Science](#) found that eliminating meat and dairy is the "single biggest way" to reduce your impact on the planet.



Reduce

- Think about your purchases and look at ways to decrease consumption.
- Purchase clothing that will last. Donate clothes you no longer use or turn old clothes in to cleaning rags.
- Plan your meals to reduce food waste. Freeze items that you don't eat right away.
- Create an inventory of all the plastic you use and try to reduce starting with single use plastics.
- Buy large economy sizes rather than small and individually wrapped items.
- Use kitchen towels and cloth napkins rather than paper towels and napkins.
- Carry reusable bags to the grocery store and on other errands.
- Take a reusable container when you go to restaurants to take your leftovers home.
- Tell waitstaff "no straw please" when ordering drinks at a restaurant.
- Carry your own water bottle and travel mug.
- Reduce the amount of junk mail you receive by going to the [Ecocycle website](#).
- Call to cancel catalogs that are shipped to your house.
- Read newspapers online and cancel home delivery.
- Use both sides of paper rather than single-sided.
- Avoid purchases that have a major negative impact on the environment, such as palm oil.
- Purchase items made from recycled materials.
- Participate in loop economies where the company reuses the packaging.

Waste Facts

The textile industry (includes clothing) is the second most polluting industry, only behind oil and gas.

On average, Americans get rid of 75 pounds of textiles per year, typically in the landfill.

Every clothing item donated keeps 7 pounds of CO2 from the atmosphere and 2,700 liters of water.

Approximately 40% of food in the U.S. is wasted and most ends up in the landfill.

The average American wastes 290 pounds of food per year.

Each year the average American family of four loses \$1,500 to uneaten food.

Every year 8 million metric tons of plastics enter the ocean.



Waste (Continued)

Recycling

- Do not bag your recycling. Never put a plastic bag in the purple cart. [Visit www.denvergov.org/recycling](http://www.denvergov.org/recycling).
- Rinse food and other products off containers before placing in the cart.
- Use the [Congress Park Hard-to-Recycle Guide](#) to learn where to take items that the City does not accept in the cart.

Compost

- Denver offers a service to pick-up your organic materials. If you don't yet have a cart, call 311 or go to www.denvergov.org/compost to order (The cost is about \$9.75 per month.)
- Put all food waste, yard waste (including branches up to 4 inches thick), paper towels, paper napkins, facial tissue paper, greasy pizza boxes, take-out chopsticks, non-coated paper plates, AND items marked BPI Compostable in the green compost cart.
- If you like to garden, start a compost pile in your backyard. The City offers free classes on backyard composting.
- Take leaves to drop-off locations during [Leaf Drop](#) (October and November). ACE Hardware sells compostable 30-gallon paper leaf bags and the City gives out coupons for a free 5-pack. Call 720-913-1311 or 311 for more information. You can also put leaves in your green cart or use as winter mulch on garden beds!
- Leave your Christmas tree out on the days specified for [TreeCycle](#).

Waste Facts

Americans use up to 390 million straws per day.

When restaurants only provide straws upon request, they reduce their straw use by 50-90%.

25% of what currently goes into the Denver landfill [could be recycled](#).

Recycling half a household's waste can save 2,400 pounds of CO2 per year.

50% of what goes in the Denver landfill is food and yard waste which creates methane contributing to greenhouse gases in the atmosphere.



Indoor Water

- Take showers instead of baths. Reduce time in shower to 5 minutes.
- If the water takes time to heat up, put a bucket in the tub to collect water to reuse.
- Defrost food overnight in the fridge rather than under running water.
- Only wash full loads in both the dishwasher and the washing machine.
- Only wash clothes when they are actually dirty. Wear clothes more than once.
- Don't rinse dishes before putting them into the dishwasher.
- When you brush your teeth, wash your face, hands, or hair in the sink, turn off water while you brush or wash.
- Decrease the number of times you flush the toilet.
- Check faucets for leaks and fix immediately.
- Put food coloring in toilet tank and let sit for 10-15 minutes to see if it leaks into the bowl. [Replace the toilet flapper](#) if there is a leak.
- Composting rather than using a garbage disposal saves 50-150 gallons of water per month.
- Install low-flow shower heads and low-flow aerators on sinks. Look for the [WaterSense label](#).
- Install low-flow toilets. [Denver Water](#) has a list of options that qualify for rebates.

Water Facts

Denver Water considers 40 gallons per person to be efficient indoor water use which is approximately 2,400 gallons for two people over a month.

Your winter statements provide a picture of your indoor water use.

One trillion gallons of water are wasted every year through household leaks.

A leak of just 10 drops per minute wastes 300-500 gallons per year.

Toilets use 24% of our water consumption.

Low-flow toilets can save as much as 4,000 gallons per person per year.

Denver now allows installation of up to two [55-gallon rain barrels](#) per house and the installation of [gray water systems](#).



Water (Continued)

Outdoor Water

- Decrease amount of lawn. Landscape with low-water perennials. Include native plants that support pollinator populations.
- Only water before 10 AM or after 6 PM. Water 3 times per week or less.
- Use a bucket and sponge when you wash your car at home rather than a hose or go to a car wash that recycles water.
- Install smart irrigation controllers with efficient technology like drip irrigation or rotary spray nozzles.

Environmental Contamination

- Use biodegradable cleaning products.
- Make your own natural cleaning products.
- Use microfiber cloths that only require water for cleaning.
- Buy environmentally friendly paint and related products.
- Recycle paint through [PaintCare](#).
- Use the City's hazardous waste program to dispose of any hazardous materials.
- Recycle electronics at [Blue Star Recycling](#) or [SustainAbility](#).
- Never flush medications down the toilet. Use the [Colorado Household Medication Take-back](#) website to find locations for safely disposing of medications.
- Avoid pesticides, herbicides, and chemical fertilizers when taking care of your lawn.



Community Engagement

- Talk to children, neighbors, family, and friends about environmental issues.
- Vote for candidates who support the environment and donate/ volunteer to their campaign.
- Pay attention to local (and national) policy discussions relating to the environment.
- Contact elected officials to express your opinion.
- Donate money to environmental organizations and organizations that plant trees and support other carbon reduction activities
- Get involved in your local green team through [Sustainable Neighborhoods Program](#), community sustainability initiatives, or local environmental groups.
- Call companies where you shop to ask them to reduce single-use plastic use; start composting and recycling; or to discuss another environmental issue.
- Shop at businesses that are certified through the [Certifiably Green Denver](#) program.



Average Carbon Emissions:

- www.ourworldindata.org/grapher/co-emissions-per-capita

Home Energy:

- www.c2es.org/content/home-energy-use/

Plastics, Recycling, and Composting:

- www.nationalgeographic.com/environment/planetorplastic/
- www.nationalgeographic.com/magazines/l/plastic/index-ps.html
- www.globalcitizen.org/en/content/wins-fight-against-plastic/
- www.ecocycle.org
- www.recyclecolorado.org

Food & Food Waste:

- www.savethefood.com
- www.usda.gov/foodlossandwaste
- www.theguardian.com/environment/2018/may/31/avoiding-meat-and-dairy-is-single-biggest-way-to-reduce-your-impact-on-earth

DIY Cleaning Products:

- www.wellnessmama.com/6244/natural-cleaning/
- www.greatist.com/health/27-chemical-free-products-diy-spring-cleaning
- www.moneycrashers.com/homemade-natural-cleaning-products-diy-recipes/

Water-Saving, Native Plants, and Pollinators:

- www.peopleandpollinators.org
- www.frontrangewildones.wordpress.com
- www.coloradowaterwise.org

Loop Systems & Zero Waste Markets:

- Global Citizen
- www.thebetterworldcompany.com
- www.thezeromarket.com
- www.ecomtn.com
- www.joyfill.co
- www.terracycle.com/en-US/

Carbon Offsets and Flying Tips:

- www.nrdc.org/stories/should-you-buy-carbon-offsets
- www.co2.myclimate.org/en/cart (A nonprofit that sells Gold Standard carbon offsets.)
- www.usatoday.com/story/news/2018/12/26/flying-bad-environment-heres-what-do/2350488002/