

Recycling 101: Reduce, Reuse, Recycle RIGHT

City of Albany, CA
Cascadia Consulting Group
February 11, 2020



Agenda

- Introductions
- Circular economy overview
- Recycling 101
- Composting 101
- Albany sustainability initiatives
- Tips for waste reduction & reuse



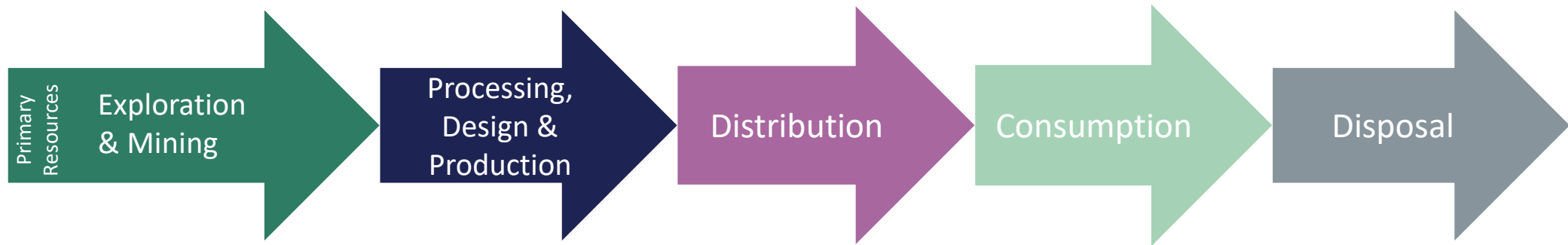
Introductions



The Broader Context



Linear Economy

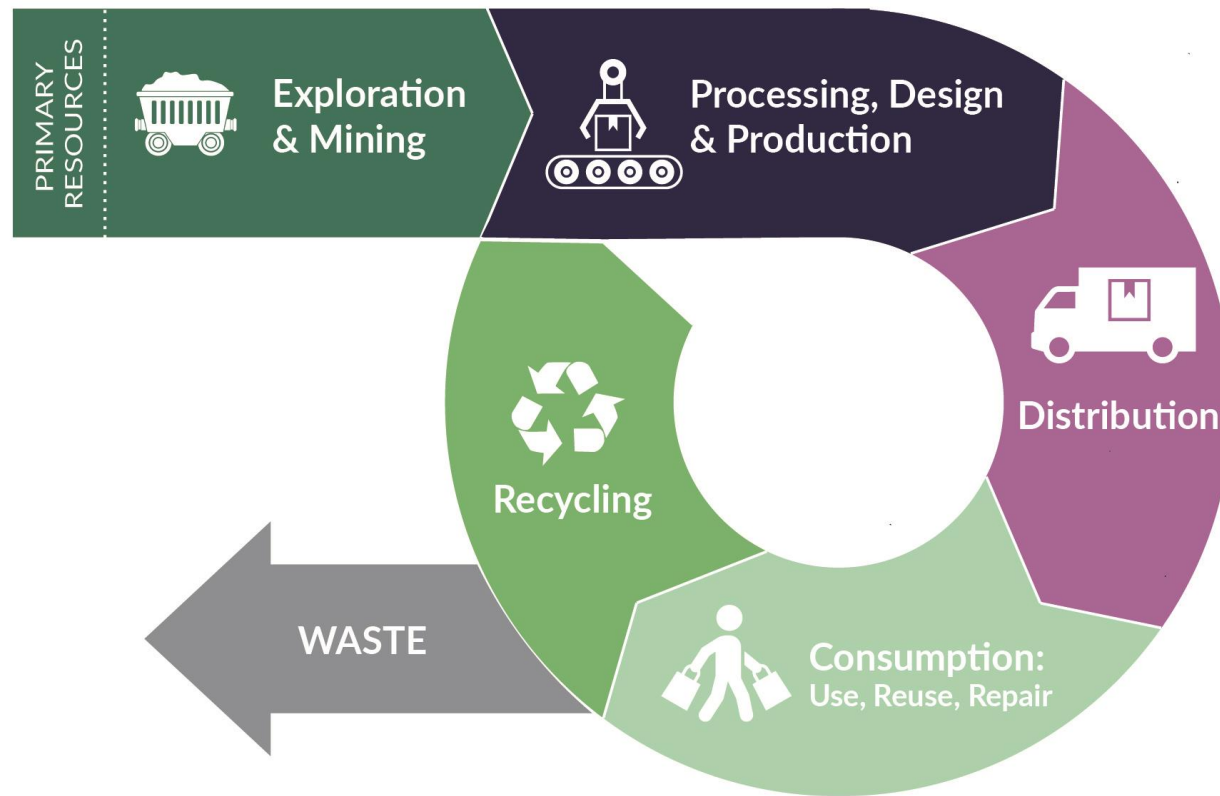


Where Does Your Waste Go?

- Altamont Landfill – Livermore, CA



Circular Economy



The 4 R's

REDUCE

REUSE

RECYCLE

ROT

The 4 R's



Recycling 101



Why Recycle?

- Limits the reliance on raw natural resources including reducing the reliance on forests, mining, and petroleum
- Using recycled materials in manufacturing requires less energy
- Turns waste into new products
- Reduces pollution caused by waste in the landfill



Where Does Your Recycling Go?

- Material Recovery Facility - San Leandro, CA



- Mixed recyclables are loaded on conveyer belt
- Employees manually remove contaminants
- Series of mechanical sorters (screens, optical eyes, blowers & magnets) separate materials by type
- Employees remove contaminants from sorted materials (paper, aluminum, cardboard, PET, HDPE, mixed plastics) *glass is not touched



Where Does Your Recycling Go?

Bailed with similar materials for shipping to processors

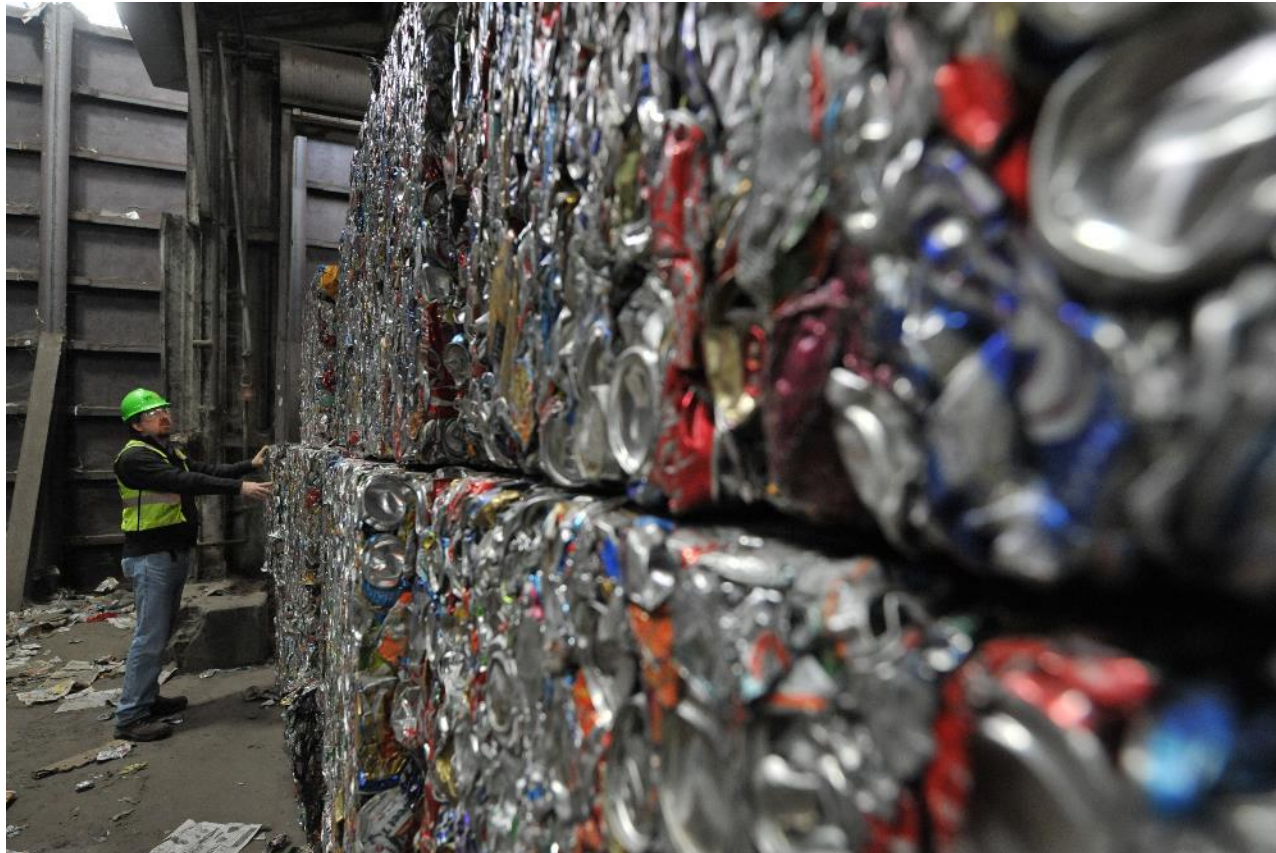


Sent to local and international processors



What Makes Something Recyclable?

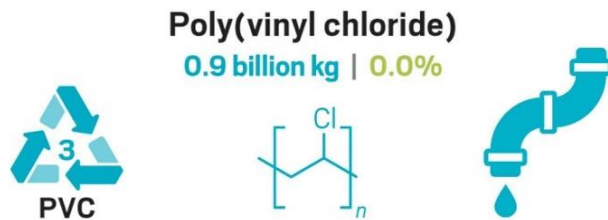
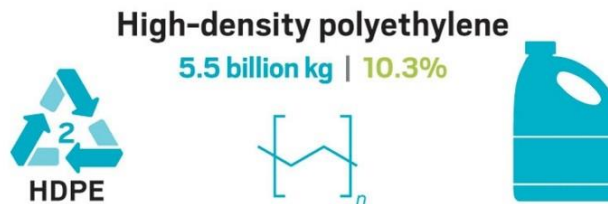
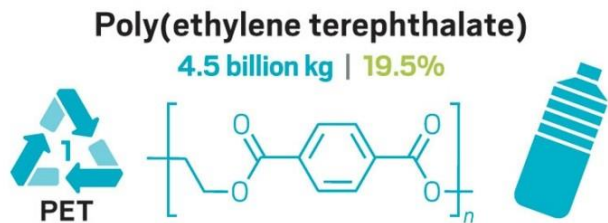
- LOCAL CONDITIONS: Will people source separate it? Can we collect it with like materials? Will people pay for it to be taken away and processed? Can we sort it?



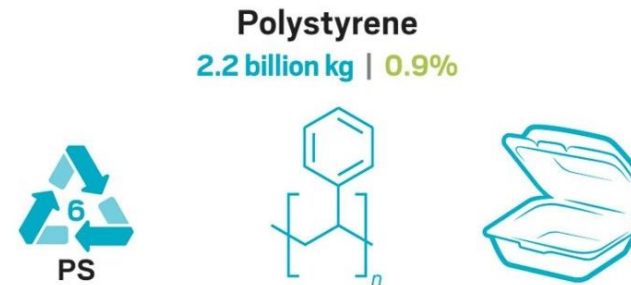
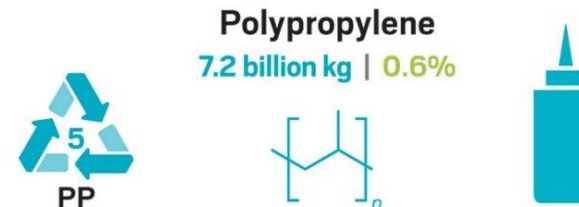
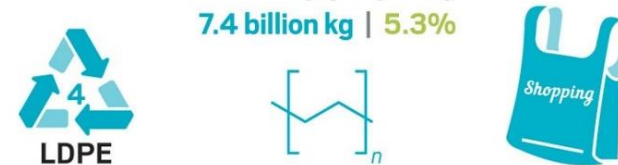
What Makes Something Recyclable?

- CHEMICAL PROPERTIES: Can it be made into something new?

Key: Mass-produced | Percentage recycled

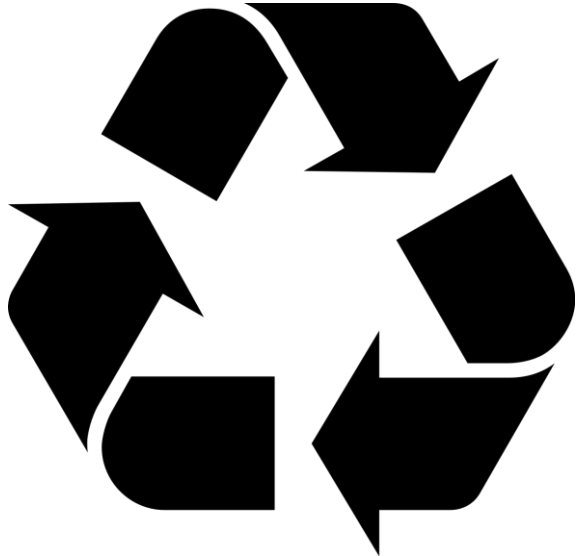


Low-density polyethylene

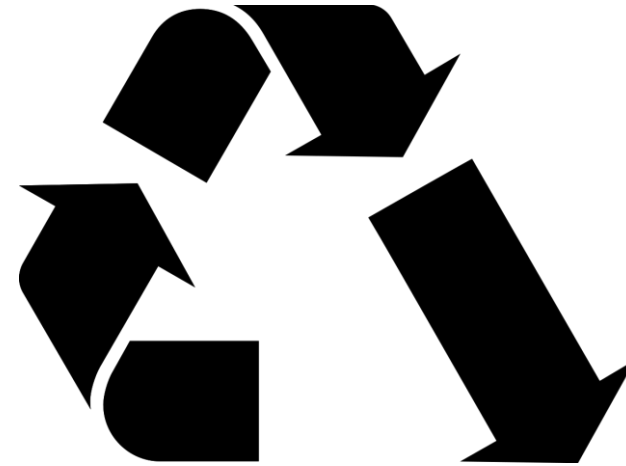


What Makes Something Recyclable?

- CHEMICAL PROPERTIES: Can it be recycled or downcycled?



Glass & aluminum can be recycled infinitely



Plastic is downcycled
E.g. Water bottle → fleece jacket
or picnic table

What Makes Something Recyclable?

- **MARKETS:** Can we sell it? Will someone buy it and make it into something new? Will someone buy that new product?

Scrap value per ton according to CalRecycle

	Aluminum	Glass	Bimetal	#1 PET Plastic	#2 HDPE Plastic	#3 PVC Plastic	#4 LDPE Plastic	#5 PP Plastic	#6 PS Plastic	#7 Other Plastic
October 2019	\$1,031.29	(\$2.44)	\$1.60	\$130.71	\$146.07	(\$0.07)	\$10.79	(\$18.54)	\$4.40	\$2.20
December 2019	\$1,063.33	(\$2.24)	\$1.07	\$146.45	\$178.50	(\$0.00)	\$0.93	(\$15.12)	\$6.98	\$0.51

Scrap value per ton according to Resource-Recycling.com

- Sorted office paper: ~\$101/ton
- Mixed paper: ~\$2/ton
 - Magazines, junk mail, paperboard packaging, etc.



Source: <https://www.calrecycle.ca.gov/bevcontainer/scrapvalue>; <https://resource-recycling.com/recycling/2019/08/13/prices-for-recycled-paper-and-plastic-stay-painfully-low/>

What's Accepted in the Recycling

PAPER

- Cardboard, mail, magazines, office paper
- Paper cartons (milk cartons)
- Shiny/coated paper boxes (frozen food boxes)

*Recycling paper is better than composting it, as long as it is clean and dry

RECYCLE
RECYCLABLES SHOULD BE EMPTY OF FOOD AND LIQUIDS
Contaminants can ruin an entire load of recyclables

Clean paper & cardboard
(please break down)

Paper packaging & paper cartons

Glass bottles & jars

Cans, foil, & scrap metal

Plastic bottles

Rigid plastic containers



What's Accepted in the Recycling

GLASS & METAL

- Glass jars & bottles (lids on OK)
- Steel & aluminum cans
- Aluminum foil

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(please break down)

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Plastic bottles

Rigid plastic containers



What's Accepted in the Recycling

PLASTIC – TUBS, JUGS, BOTTLES, & JARS

- Shampoo containers
- Water bottles
- Condiment containers
- Yogurt tubs

*Focus on shape and durability of container (rather than #1-7) when determining acceptability.



What's Trash

PLASTIC

- Clamshells – plastic to-go containers, berry containers
- Plastic film – plastic bags, plastic wrap, sandwich bags
- Small plastic items – plastic silverware, straws, coffee cup lids, sauce containers
- Polystyrene foam
- “Compostable” plastics

TRASH
NON-RECYCLABLES, NON-COMPOSTABLES, NON-HAZARDOUS
Eliminate single-use plastic by using reusable bags and containers

- Drink & food cartons, boxes / pouches, lined paper products
- Loose plastic bags & wrap, snack bags
- Broken glassware & ceramics, plastic straws, lids & utensils
(Reusable items should be donated)
- Diapers & pet waste
- Hoses & wires
- Polystyrene foam, plastics labeled "compostable"



What's Trash

PAPER

- Paper with plastic coating - ice cream cartons, milk cartons, coffee cups, soda cups, take out containers
- Paper with mixed materials - (aseptic containers such as soy/almond milk boxes, soup/juice boxes)

TRASH

NON-RECYCLABLES, NON-COMPOSTABLES, NON-HAZARDOUS
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Tips for Recycling

Empty & then wipe, scrape or rinse

Do NOT bag recyclables

Pour liquids down the drain and empty food container residue into your food scrap pail or green organics cart. Put the empty recyclable container into your gray recycle cart.



POUR IT



SCRAPE IT



SKIP IT



RECYCLE IT

**RECYCLE RIGHT.
LOSE THE BAG!**



Top 6 Take Home Messages - Recycling

- Your trash is not sorted – it goes to the landfill. Your recycling IS sorted.
- Recycling processes are complicated and ever-changing, and local control is limited
- Only rigid plastic tubs, jugs, bottles & jars
- Small plastic items, flimsy plastic containers, and plastic film are trash
- Do NOT bag recyclables
- You can limit your waste by purchasing items in recyclable packaging



Composting 101



Why Compost?

- Food & yard waste that decomposes in landfills creates methane gas
- Compost returns valuable nutrients to soil to maintain soil fertility
- Improves plant growth and increases crop yield
- Reduces need for fertilizer & pesticides



Where Compost Goes

Compost Facility

- Grind yard trimmings mixed with residential food
- Place in Covered Aerated Static Pile (CASP) – state-of-the-art facility
- 131 degrees for 3 consecutive days
- Remain in pile for 120 days
- Cure for additional 6 months
- Test per US Composting Council
- Sell to farmers, ranchers, vineyards and more

Altamont CASP Compost Facility



What's Accepted in the Organics

FOOD

- Vegetables, fruit, raw/cooked meat, egg shells, bones
- Coffee grounds & tea bags



What's Accepted in the Organics

FOOD SOILED PAPER

- Pizza boxes
- Napkins & paper towels
- Paper egg cartons
- Unlined (no plastic) paper take-out containers
- Unlined (no plastic) paper plates
- Wood/bamboo plates and utensils
- Shredded paper



What's Accepted in the Organics

YARD WASTE

- Leaves
- Grass
- Plant debris
- Clean, untreated wood



What's Trash

HUMAN/PET WASTE

- Diapers
- Carnivorous pet waste (dogs & cats)

“COMPOSTABLE” PLASTIC

- All plastic items that say “Compostable” on them

TRASH
NON-RECYCLABLES, NON-COMPOSTABLES, NON-HAZARDOUS
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Contaminants in the Compost

- Common contaminants: Glass, plastic bags, “compostable” bags & service ware, plastic bottles, plant containers, metal cans, plastic-lined paper products



Tips for Composting

- Keep it convenient
 - Collect food in kitchen pail – store under sink
 - Collect food in cereal box or reusable container – store in freezer
- Put it properly in the Organics cart
 - Add loose items to green waste cart
 - Transport in paper bag
 - If using a plastic bag to collect organics, throw the plastic bag in the trash after emptying
- Add shredded paper or soiled cardboard (like pizza boxes) to absorb moisture



City of Albany Programs



Additional Waste Programs in Albany

- Curbside trash, recycling, and organics service
- Annual Compost Giveaway
 - May 16, 2020
- Special Handling
 - Bulky pickup for single-family dwellings 2x annually
 - Household Hazardous Waste drop-off events 2x annually

NOT FITTING IN?

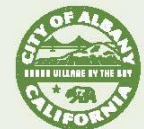
Call Waste Management
to get rid of bulky items.



Free service available up to twice per year for
Albany single-family and duplex properties.



YOU CALL - WE HAUL
510-613-8710



Special Events

- Citywide Garage Sale – May 9, 2020
- Crop Swaps – Tuesdays May-October
- Fix-it Clinics
- Clothing Swaps
- Toy Swaps
- Compost Giveaway – May 16, 2020



Waste Policies in Albany

- Polystyrene Foam Ban
 - Prohibits use of polystyrene foam take-out containers
 - Requires recyclable or compostable alternatives
- Reusable Bag Ordinance
 - Single-use plastic bag ban for all retail and restaurants, charge for paper or “reusable” bags
- Mandatory Recycling & Organics Ordinance
 - Recycling and organics service and sorting requirements for businesses and multi-family buildings
- Construction and Demolition Ordinance
 - Update in progress
- Environmentally Preferable Purchasing Policy
 - City procurement and disposal best practices
 - Sustainable Procurement Policy update in progress
- Reusable Food Ware Ordinance
 - Development in progress



Climate Action & Adaptation Plan



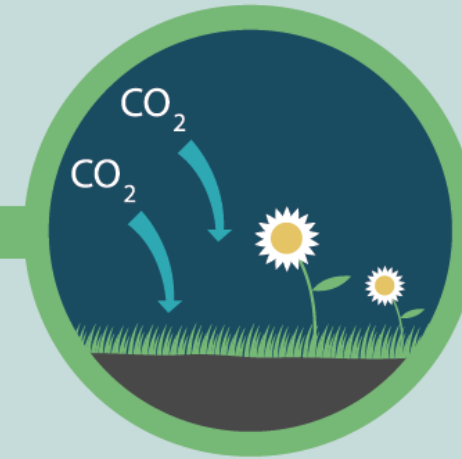
DECARBONIZE

- ✓ Eliminate the use of fossil fuels in buildings and transportation
- ✓ Reduce consumption to decrease fossil fuel use where products are manufactured



GENERATE

- ✓ Generate clean, renewable energy
- ✓ Focus on local renewable energy and battery storage



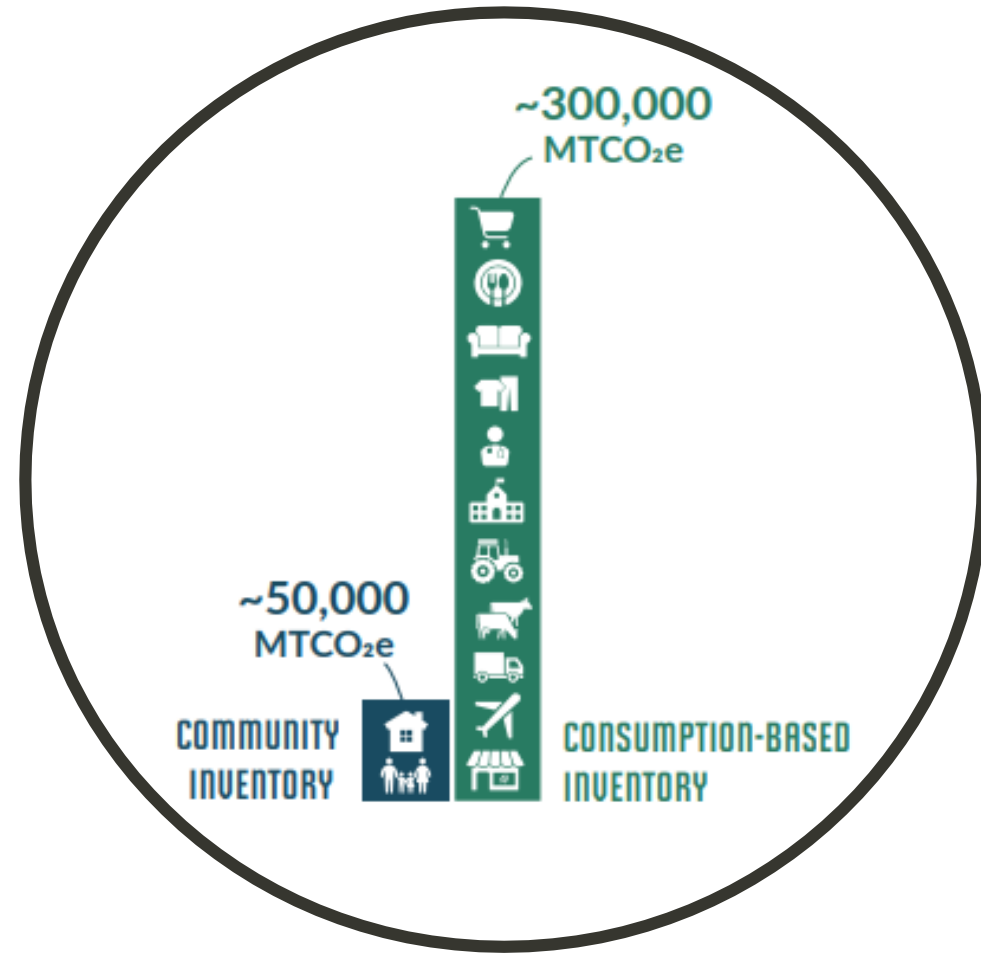
SEQUESTER

- ✓ Sequester CO₂ with green infrastructure preservation and improvement
- ✓ Offset any new emissions through carbon-capture technologies



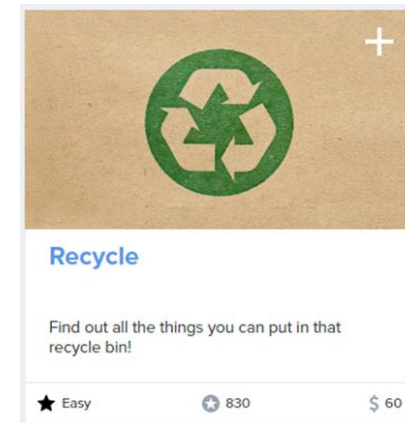
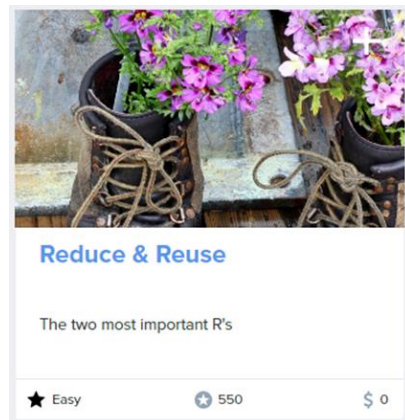
Climate Action & Adaptation Plan

- Climate Action Goals:
 - 70% GHG reduction by 2035
 - Carbon neutral by 2045
 - Adapt to effects of climate change
- Strategy 3: Facilitate a Carbon-Free Economy
 - This strategy commits the City to choosing low- or no-carbon options for typically high-emissions purchases (e.g., concrete, fuel, fleet), while incentivizing individuals' actions to reduce waste and carbon in their daily lives.



Carbon-Free Albany

- Resources on cost-saving, waste and energy reduction efforts.
- Form teams with friends and neighbors
- Take actions that reduce your carbon footprint.
- 2020 Carbon-Free Albany Challenge from January until June
- Sign up and form a team at carbonfreealbany.org



Stretch Break & Quiz!



Quiz



Paper Coffee Cup



Plastic Berry Container



Plastic Mail Pouch



Toilet Paper Roll



Compostable Plastic Silverware



Paper Egg Carton



Paper Towel



Compostable Plastic Cup



Cardboard Box



Junk Mail



Quiz Results



Paper Coffee Cup
TRASH



Plastic Berry Container
TRASH



Plastic Mail Pouch
TRASH



Toilet Paper Roll
RECYCLING



“Compostable” Plastic Silverware - **TRASH**



Paper Egg Carton
ORGANICS



Paper Towel
ORGANICS



“Compostable” Plastic Cup
TRASH



Cardboard Box
RECYCLING



Junk Mail
RECYCLING



Top 10 Ways to Make
a Difference

Reducing & Reusing

We'll Set Intentions
- Take Notes!



Composting Food Scraps

- Commit to composting 100% of your food scraps, paper towels, and yard waste



Carry Durables With You

IDEAS:

- Water bottle
- Coffee cup
- Silverware
- Bandana/towel



Pack Waste-Free Lunches

IDEAS:

- Make your own salad dressing
- Avoid individually packaged snacks
- Switch plastic bags for silicone bags/Tupperware



Zero Waste at Restaurants

IDEAS:

- Support local businesses that avoid single-use items for dine-in
- Bring your own containers for take-out
- Bring a container to take home food that you can't finish



Reuse Items

IDEAS:

- Purchase used clothing, home and garden supplies
- Citywide Garage Sale – May 9, 2020
- Local swap events
- Thrift and consignment stores
- Craigslist & Facebook Marketplace
- Nextdoor
- Rent instead of buy



Repair

IDEAS:

- Mend clothing
- YouTube how to fix/repair something that is broken
- Find a local business that specializes in repair
- Look for local Fix-It Clinics
- Tool Pool: Albany Tool Lending Library

Albany Tool Pool: Tool List

- Axes
- Belt sander
- Cabinet scraper
- Caulking gun
- Chisels, gouges & parting tools
- Circular saw
- Clamps
- Digging/tamping bar
- Drill bits
- Drills
- Files
- Fruit picker
- Garden claw
- Glue gun
- Grinders
- Hacksaws
- Hammers
- Hedge shears (*electric*)
- Ladder
- Lawn mowers
- Lawn roller
- Levels
- Linoleum knife
- Lopping shear
- Mini flexible pick-up claw
- Notched trowel
- Paint scraper, shield
- Planes
- Pliers
- Pole pruner/saw/lopper (*manual*)
- Posthole digger
- Pruning saw
- Pruning shears
- Push broom
- Putty knife
- Rake
- Random orbital sander
- Rasps
- Reciprocating saw
- Saws
- Screwdrivers
- Shovels (*round, square pt.*)
- Socket sets (various)
- Soldering gun and iron
- Squares
- String trimmer
- Trowel
- Utility knife
- Vise grips
- Wheelbarrow



Purchase Post-Consumer Products

IDEAS:

- 100% Recycled paper towels, napkins, and toilet paper
- 100% recycled printer paper
- Post-consumer recycled office supplies, such as pens or sticky notes



Re-fillable Containers

IDEAS:

- Ask businesses to fill durable containers with dry good, left overs, purchases, & to-go food
- Charging for single-use containers
- Providing fiber-based compostable to-go ware
- Offering refills using company-branded containers
- The possibilities are endless – JUST ASK!



Zero Waste Grocery Shopping

- Reusable produce bags
- Shopping in bulk
- Bring glass containers for meat



Reduce Food Waste

- Shop smart to buy the right amount of food
- Label and track left-overs to ensure they are eaten
- <http://stopfoodwaste.org/resources>



Local CSA Box

- Consider looking for farms prioritizing zero waste such as Full Belly Farm (doesn't use plastic or cardboard boxes)



Encourage Family & Friends

- Spread the word on what you learned today
 - How to sort properly
 - Importance of recycling & composting right
 - Ideas for waste reduction
- Advocate at local businesses to switch over products



Pledging To Do More

- Set intentions for Who, What, Where, When to make new habits stick
- Commit to 3 (or more!) actions on the Waste Reduction Cheat Sheet
- Check out the local businesses providing products and resources to support a sustainable lifestyle!



Q&A



Stop by our tables to ask questions!

- Recycling & Composting Sorting Game > Lina, Waste Management
- Recycling & Composting Questions > Lizzie, City of Albany
- Brainstorm Reduce & Reuse Ideas > Claire, City of Albany & Jess, Cascadia Consulting Group
- Carbon Free Albany > Bianca, City of Albany

