

CLIMATE ACTION COLLABORATIVE

2018 ANNUAL REPORT



Energy
Grid & Renewable



Waste
Materials Management



Transportation
Fuel Emissions



Built Environment
Residential & Commercial



Education
& Outreach

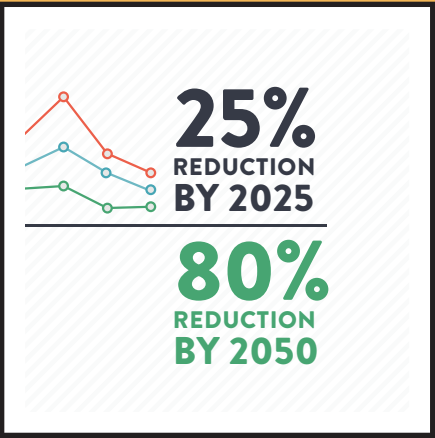
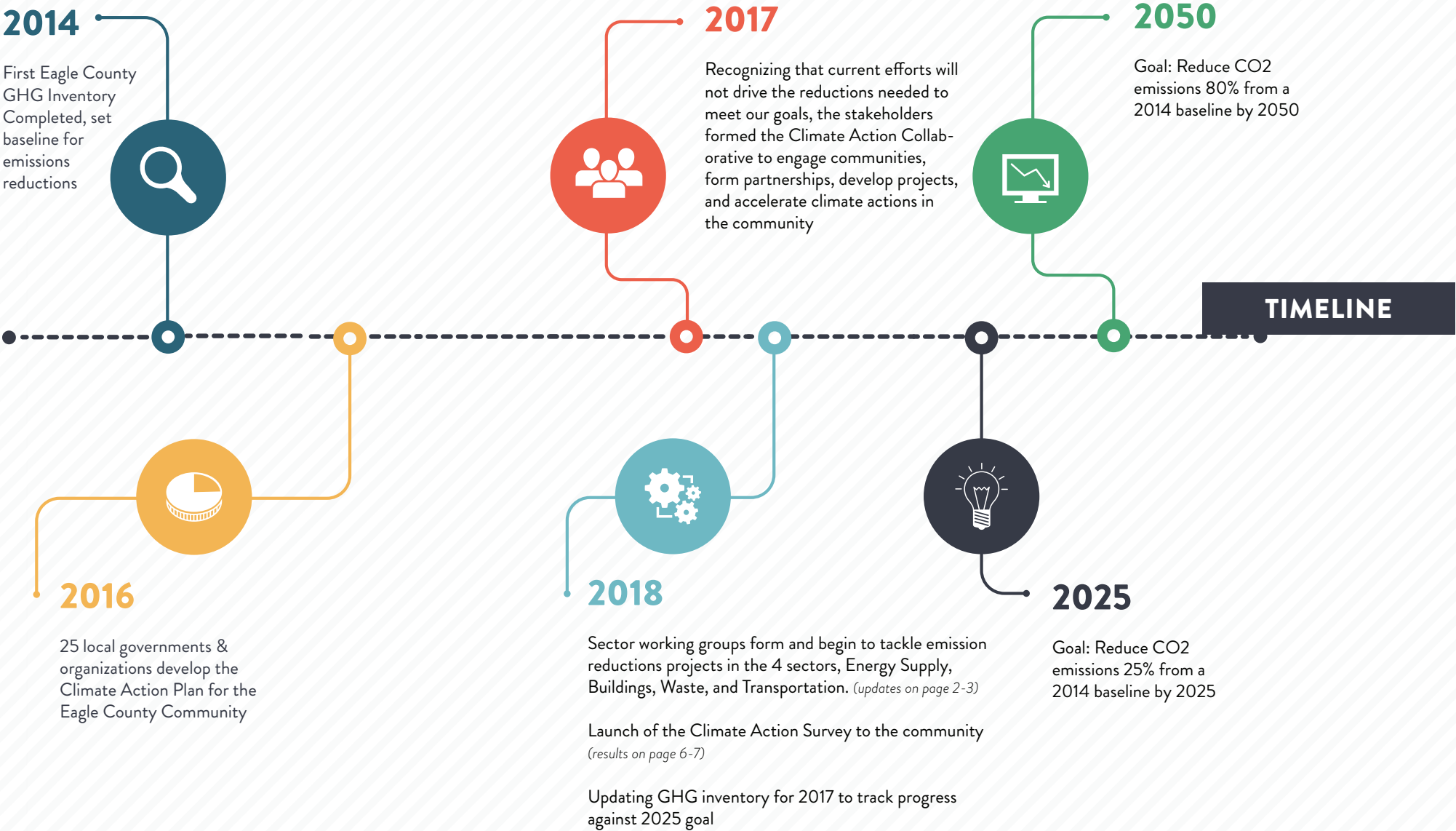
A Collaborative Built for Action.

The Climate Action Plan (CAP), formalized in 2016, was the catalyst that brought our community together to look at how we can systematically address the problem of global climate change through local actions and initiatives. Since then, stakeholders from around the community participated in the founding of the Climate Action Collaborative for the Eagle County Community. The Collaborative’s mission is to carry out the carbon pollution reduction goals laid out in the CAP, which calls for a 25% reduction by 2025, and an 80% reduction by 2050.

The Collaborative is organized into working groups each focused on a different impact area; energy supply, building energy use, materials and waste, transportation, and community education. In 2018 each working group developed initiatives to reduce climate pollution in their respective sectors.

- ENERGY SUPPLY** Support Holy Cross Energy’s goals to increase renewable electricity developments
- BUILDINGS** Expand the reach of local energy efficiency and renewable energy programs
- TRANSPORTATION** Install infrastructure for EVs, transit system upgrades, and bike shares
- WASTE** Improve access, education, and infrastructure for recycling and composting in our community
- EDUCATION** Share success stories in our community that support behavior change

The engagement and collaboration between businesses, municipalities, and the County, has demonstrated we are better able to leverage collective resources when we work together. Through several successful initiatives, we are moving the needle on local carbon pollution, and have created a climate of excitement and engagement from the community that has been an inspiration to all those involved.

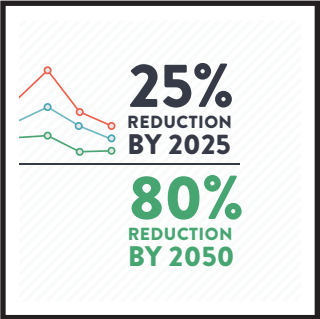


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The Climate Action Plan

for the Eagle County Community was created based on a 2014 greenhouse gas (GHG) inventory for our community. The GHG inventory is a report detailing the source of all greenhouse gas emissions in our community. The 2014 GHG inventory and Climate Action Plan can be found on ClimateActionCollaborative.org.

CARBON
EMISSION
REDUCTION
GOAL



The 2014 GHG Inventory gave our community the information it needed to begin to tackle climate change on a local level. Using the inventory as a guide, the Climate Action Plan was written to specifically address emissions in the different sectors of our community. The goal in the plan for emissions reductions, is a 25% reduction by 2025 and 80% reduction by 2050. The 2050 target is in alignment with the recent recommendation of the Intergovernmental Panel on Climate Change (IPCC, 2014) which is meant to limit emissions in order to keep the planet’s average global warming below 2 degree Celsius warming.

This climate action plan is specifically focused on mitigation. Climate mitigation is defined as efforts that reduce or prevent GHG emissions. Climate adaptation is defined as efforts that help the community prepare for and adjust to the current and future impacts of climate change. Although this plan does not specifically address climate adaptation, other efforts are being taken throughout the Eagle County community to prepare for the changing climate. The Climate Action Plan was the cornerstone of the Climate Action Collaborative efforts in 2018.

“If we achieve a 25% reduction in GHG emissions by 2025, we will retain \$60 million annually in the local economy.”
-Climate Action Plan



Climate Action Plan Strategies

To read *Climate Action Plan Strategies* in full, visit ClimateActionCollaborative.org

The strategies outlined below are called out within the Climate Action Plan as the top strategies our community could implement to immediately reduce local carbon emissions. In the first few years of the Climate Action Plan being adopted, we have already completed many of these strategies and are actively working on others. Those highlighted in yellow have not yet started, but are future considerations as the Collaborative as we work towards achieving our emission reduction goals.

BUILDINGS

Expand EnergySmart Colorado program & incentives locally	Complete
Provide support & incentives for energy efficient upgrades in rentals	Future Considerations
Adopt “above building code” standards	In - process
Update Eco-Build fees associated w/exterior energy use	In - process
Promote & incentivize efficient use of water	In - process
Partner with utilities to provide incentives for efficiency	Complete
Provide incentives for benchmarking of buildings over 10,000sf	In - process

TRANSPORTATION

Consider FREE or reduced cost bus service	In - process
Continue to pursue rail transit or bus rapid transit	Future Considerations
Expand the network and use of electric vehicles	Complete
Encourage multi-modal transportation systems	In - process
Strive for efficient land use with housing close to workplaces	Future Considerations

ENERGY SUPPLY

Expand local exterior offset programs, for example Eco-Build	In - process
Identify locations for local solar arrays	In - process
Encourage utilities to set aggressive emission reduction goals	Complete

EDUCATION + OUTREACH

Establish County-wide climate education team and marketing campaign	Complete
Use social science research on climate change and education to inform strategies	In - process
Expand Actively Green, Energy Smart, CMC Sustainability Studies, and k-12 educational opportunities	In - process
Leverage special event platforms to change behavior	In - process
Add soil-health education to improve carbon sequestration	Future Considerations
Create climate action “tool kit” to share throughout community	Future Considerations

MATERIALS MANAGEMENT

Set a waste diversion goal that is above the national average	In - process
Divert 30% of organics by 2030	In - process
Support sustainable purchasing policies and practices	Complete
Add new programs to increase recycling and composting	Complete
Address waste diversion in multi-family buildings	In - process
Add more opportunities for diversion of hard-to-recycle items	Complete

KEY

Complete

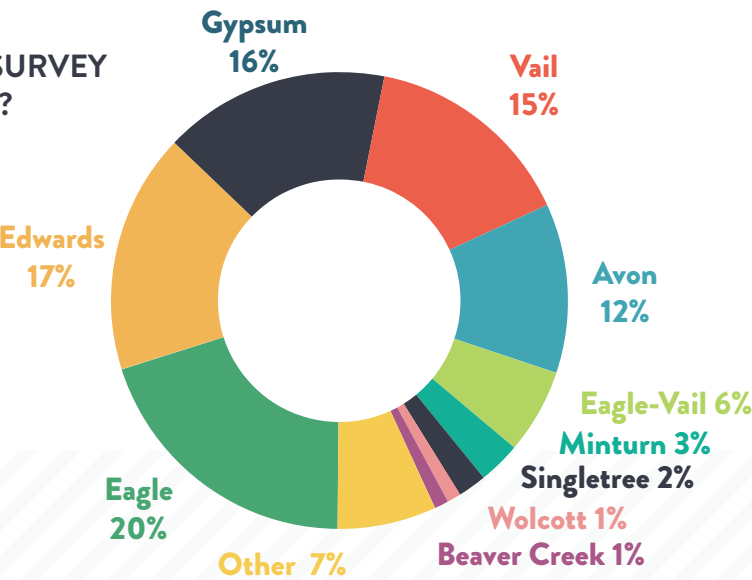
In - process

Future Considerations

Climate Action Community Survey Results

In 2018 the Climate Action Collaborative asked the Eagle County community to participate in a Climate Action survey to understand the attitude on climate change locally. The survey asked community members to comment on the sustainability actions they already participate in and what future sustainability efforts they would be in support of. The results of this survey demonstrate that our community is to act on climate change and is supportive of local efforts to do so!

WHERE DO SURVEY
TAKERS LIVE?



SURVEY TAKERS
ALWAYS RECYCLE:



SURVEY RESPONDERS WERE SUPPORTIVE OF LOCAL EFFORTS TO:

promote climate change
education and promote
sustainable practices in
local schools

engage school children
and their families to
create future environ-
mental stewards

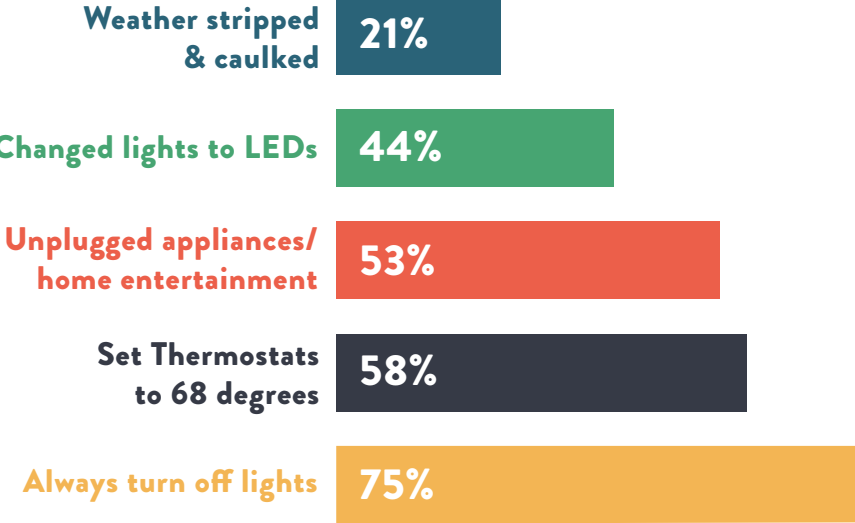
provide incentives to
landlords to use more
energy efficient appliance

promote sustainable
water use in hotels

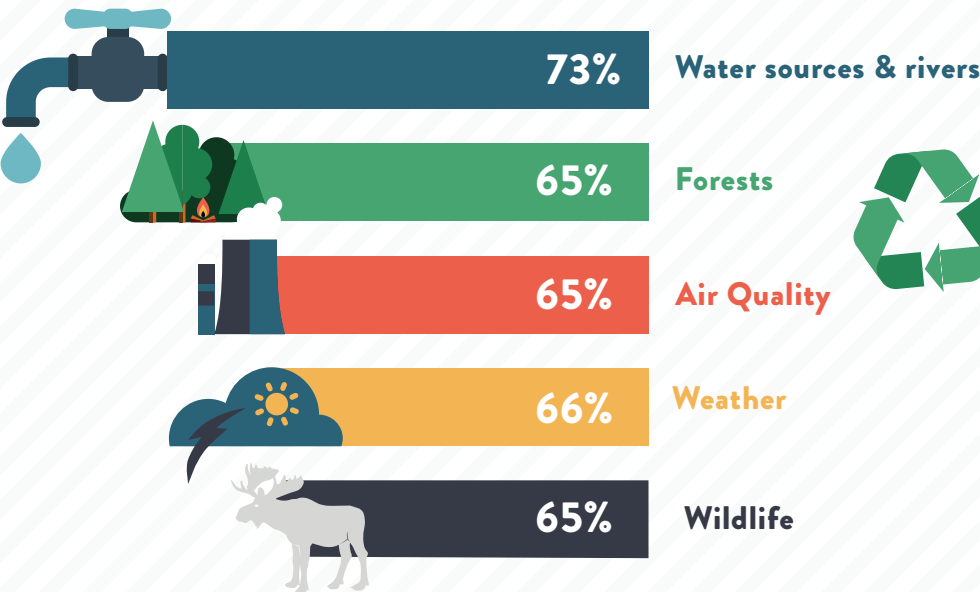
86%
THINK
LOCAL GOVERNMENTS
NEED TO ACT ON
CLIMATE CHANGE



WHAT DID
YOU DO
AT YOUR
HOME?



CONCERN FOR RESOURCES?



BIGGEST BARRIERS

RECYCLING
don't know how
a lot of effort
no recycling at apartment
no space

ENERGY EFFICIENCY
someone else is in charge of
maintaining the residence
and they can't afford to fix it



Climate Action Collaborative 2018 Impact Report

Achieving our Climate Action Plan goals requires on-going tracking of efforts to reduce local greenhouse gas emissions. In 2018, we tracked the impact of four local sustainability programs and initiatives, Actively Green Business Certification Program, EnergySmart Energy Assistance Program, Sole Power the Green Commuter Challenge, and LED Swaps, an initiative through the Collaborative. These four programs are publically available sustainability programs in the Eagle Valley that address sustainability in both residences and businesses. Check out our total impact for 2018!

The Climate Action Collaborative Partners launched and or participated in many emission reduction activities throughout the year. A few were tracked for emission reduction reporting, while others impact were not able to be quantified. A few of those efforts that were not able to be quantified have been included here to show the full impact of the Collaboratives' work in 2018. In addition, the following pages include highlights of other carbon emission reduction work done by Collaborative partners in 2018. In future years, the Climate Action Collaborative will work towards creating a system to monitor year after year emission reductions in order to report on progress against our Climate Action Plan goals.



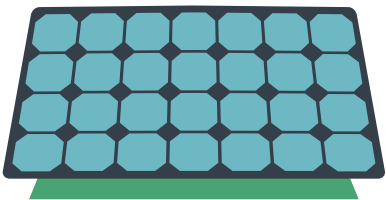
61 Certified Businesses
28 Pursuing Certification
46% of waste diverted from landfill
17% of total business energy use came from renewable energy

All actively green businesses report on energy use, water use, and vehicle mileage, and each has a goal to improve over time.

CARBON REDUCTION
AWARD 2018

**EAGLE RIVER
FOOD BANK**
Diverts food waste from our local grocery stores, which was headed to the landfill. They package the food and bring it to neighborhoods around the valley who are food insecure. They compost whatever they cannot pass out, and therefore save huge amounts of food from going to the landfill!

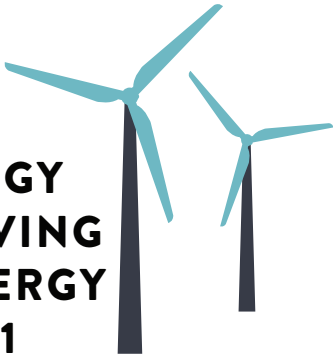
COMMUNITY IMPACT HIGHLIGHTS



Rebates for rooftop solar through
Walking Mountains Energy Programs

DOUBLED

**HOLY CROSS ENERGY
COMMITTS TO ACHIEVING
70% RENEWABLE ENERGY
SOURCES BY 2021**



**ELECRIC
BIKE SHARE
SYSTEM**
e-assist bike demo



Eagle County
hosted a 3-month
**Electric Vehicle
Sales Event**

with regional partners



Town of Avon
BANS
plastic bags

Holy Cross provided
FREE EV chargers
for homes and businesses



US GREEN BUILDING COUNCIL
starts new chapter in Eagle Valley
to engage local builders in green
building best practices.



AVAILABLE TO ALL
EAGLE COUNTY RESIDENTS



CONSTRUCTION
+ DEMOLITION COMPOST TEXTILE
RECYCLING



**LOCAL GOVERNMENT ENERGY ACADEMY
FROM COLORADO STATE UNIVERSITY**

**HOSTS 2-DAY WORKSHOP
IN EAGLE COUNTY**



**WASTE
WIZARD
EAGLE COUNTY
RECYCLING APP
LAUNCH**



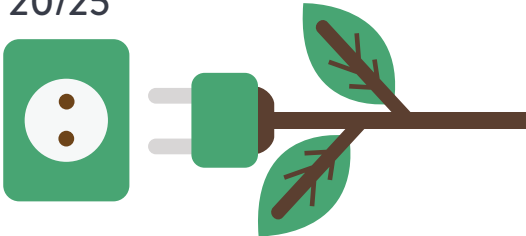
Community Impact Report (cont.)



Energy Smart Colorado at Walking Mountains Science Center offers home and business energy assessments, expert energy efficiency consulting, and rebate assistance to the residents of Eagle County. Free energy assessments and energy assistance projects are available for income-qualified households.

ENERGY SMART IMPACT IN 2018:

- Home energy assessments completed (out of goal): 199/100
- Free energy assessments/energy assistance projects completed: 20/25
- Efficiency & Renewable rebates administered: 161/60
- Total Annual Energy Savings: \$277,815
- **Total Metric Tons of CO₂e reduced: 2,108 CO₂e**

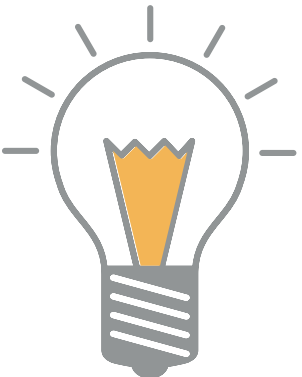


LED SWAPS

The Collaborative partnered with Eagle County and local business to provide 2 free LED bulbs to anyone who brought in an inefficient lightbulb to swap. LED Swaps are an initiative of the Climate Action Collaborative for the Eagle County Community to engage resident's energy efficiency in their homes.

LED SWAP IMPACT IN 2018:

- Swaps hosted throughout Eagle County: 8
- Decreased local energy costs: \$2,377.57
- **Total Metric Tons of CO₂e reduced: 14.01 CO₂e**



Sole Power is a free green commuting challenge for the Eagle Valley. The challenge runs from Memorial Day through Columbus Day. Members can track their mileage and carbon emissions over the course of the season. Sole Power is a great way to get to work, have fun, save money, and get fit over the summer season. All of that fun stuff aside, it helps to reduce carbon emissions!

SOLE POWER IMPACT IN 2018:

- Number of participants: 268
- Dollars of Fuel Saved in 2018: \$6,920
- Miles logged in 2018: 46,892
- **Total Metric Tons of CO₂e reduced: 21.5 CO₂e**



TOTAL CO₂ EMISSIONS IMPACT:

2,108 tons of CO₂e through Energy Smart
21.5 tons of CO₂e through Sole Power
14.10 tons of CO₂e through LED Swaps

2,143.6 TONS of CO₂e
ELIMINATED
= 455 cars taken off the road
= 257 homes annual energy use

2018 Partner Progress Update

EAGLE COUNTY

- New Facilities Building in Gypsum completed includes Solar PV that generates enough energy to power the building, and a heating system that runs on used oil collected from county vehicles.
- Completed LED lighting upgrades in all County buildings which saves over \$65,000 on electricity and eliminates 470 tons of carbon pollution each year.

EAGLE COUNTY SOLID WASTE & RECYCLING

- Construction and Demolition (C&D) Diversion Site opened to divert concrete and clean wood out of the landfill. 3,094 tons of material were diverted through the C&D Site in 2018
- Textile recycling being offered at the Eagle County Landfill through USAgain
- 2,615.3 tons of recyclables were processed through the Eagle County Materials Recovery Facility (MRF)

EAGLE RIVER VALLEY FOOD BANK

- Collected grocery rescue donations from 9 stores including Costco, 3 City Markets, Village Market, Ridley’s Market, 2 Starbucks stores and Walmart.
- 184,000 pounds of food has come into the Eagle River Valley Food Bank warehouse from grocery rescue and other food donations. A majority of which would have been sent to the land fill.
- Over 14,000 people served a total of 80,000+ meals.
- Diverted 14,700 pounds of compost, 9700 pounds of recycling, 750 pounds of food waste to animal feed.
- Only 1.4% of the total food rescued ended up in the landfill.
-

ECO Transit (Eagle County)

- Finished Transit Development Plan and commissioned a first/last mile study to improve connectivity to existing transit routes.
- Began Transit Master Plan.
- Initiated Transit Coordinating Team including Town of Vail, Town of Avon, Beaver Creek, and Eagle County to launch a coordinated information hub for local transit launching in 2019
- Received \$1.3M for the purchase of new Electric Buses in 2019
- Purchased 2 Chevy Volts for fleet vehicles that saved 35.84 metric tons of CO2.

HOLY CROSS ENERGY

- Estimated clean and renewable energy supply was 39%.
- Established a new energy goal for 2030 called Seventy70Thirty. To achieve this goal, HCE will:
 - Use clean and renewable resources to supply at least 70% of the annual energy provided, by 2030
 - Reduce the greenhouse gas emissions associated with our power supply by 70% from 2014 levels; compared to 25% today; and
 - Accomplish both of these goals with no additional increase in the cost of power supply.

HOLY CROSS ENERGY (cont.)

- Signed contracts with Guzman Energy to facilitate Seventy70Thirty, which includes procuring a new 100MW wind farm, expected to begin operating in 2021
- Simplified Renewable Energy Purchasing Program and reduced the costs for members who opt to procure 100% renewable energy.

MOUNTAIN REC

- Improved recycling efforts to ensure proper disposal of metals.
- Replaced drinking fountains in both the Edwards Field House and Gypsum Recreation Center with drinking fountain/water bottle filling stations. The two in Gypsum have already saved the equivalent of 61,964 plastic water bottles from entering the landfill.
- Worked with Eagle County to adjust controls on HVAC systems to ensure efficient operation.
- Hosted a paint disposal event at the Gypsum Recreation Center in July that was sponsored by the Town of Gypsum.

TOWN OF MINTURN

- Town Council approval to pursue LED lighting retrofit for all municipal buildings in line with Community Energy Action Plan.
- Worked to establish a compost drop site with Vail Honeywagon to be implemented early 2019.

TOWN OF VAIL

- Increased in-town bus route ridership from 1.8 million to just over 2 million. Total bus ridership is up to 3.3 million.
- Partnered with Energy Programs at Walking Mountains Science Center to complete 40 energy audits and efficiency projects worth 1.4 million in economic stimulus, and 410 metric tons of CO2.
- Diverted 24% of town waste from landfill
- Reduced summer water use by 50%
- Achieved a 34% reduction in electricity use through efficiency and LED streetlight conversions
- Saved 47,000 lbs of CO2 through the Sole Power Challenge with record participation throughout the valley.

VAIL VALLEY FOUNDATION

- Exploring options to add solar photovoltaics to the roof system at the Gerald R. Ford Amphitheater, and reduce water usage and reduce plastic water bottles usage.
- Continued to refine Zero Waste efforts at the GoPro Mountain Games diverting waste from landfill.
- Moved to re-usable glassware at the Vilar Performing Arts Center and implemented measures to prioritize public transportation to and from the venue.



ACTIVE | HEALTHY | TOGETHER





EAGLE RIVER WATER & SANITATION DISTRICT (ERWSD)

- Approved offsetting 100% of annual energy use with wind energy through Renewable Energy Purchasing Program offered through Holy Cross.
- Received the Think Efficiency grant through Holy Cross to upgrade our Vail and Avon administration and process area lights to LEDs. This project will save an estimated annual 257,776.25 kWh for both our administration buildings and our process areas. Annual estimated savings are \$ 29,946.29.
- Utilized 2 full electric vehicles and 8 hybrids for management use and pool vehicles;a report compiled by SemaConnect estimated a total electric vehicle savings of 798 gallons of fuel and 15,483 lbs of GHG reductions

**Report used kWh usage of charging stations and a formula created by the IT department of SemaConnect*

TOWN OF AVON

- Extended the Town sales tax credit on the sale of components used in the production of renewable electricity, heat, or cooling, including but not limited to wind, solar, solar thermal systems, and geothermal energy systems. The tax credit for the installation of \$15,000 in solar panel materials would amount to a savings of \$600 for the taxpayer.
- Adopted the Plastic Bag Ban resulting in a plastic bag use reduction of over 3,000,000 plastic bags per year in Avon alone.
- Completed new Town Hall construction project with LEED Gold Certification.
- Extended the Town's Heat Recovery System to heat the new Town Hall. The Heat Recovery System extracts waste heat from the treated effluent leaving the Eagle River Water and Sanitation District's Avon Wastewater Treatment Plant.
- Installed CLEER Building Energy Navigator software at several Town facilities including Mobility Center, Fleet Maintenance Building, Police Station, Recreation Center and Town Hall. The Recreation Center saw a 10% decrease in energy use year-over-year.
- Installed a 150.15 kW solar panel array at the Avon Regional Transit Facility, also known as the Mobility Center.
- Installed a 21.6 kW solar panel array at the new Town Hall.
- Expanded the Town's Bike Share Program.
- Held a post-holiday recycling event on January 13, 2018 at which a total of 7,340 pounds of material was collected and diverted from the Eagle County Landfill.
- Purchased the Town's first hybrid bus.

TOWN OF EAGLE

- Preparations to implement Zero Waste Events with Walking Mountains and Vail Honeywagon starting in 2019.
- Implemented textile recycling at Eagle Recycle Drop-Off Site.
- Increased Yard Waste Facility hours of operation to provide the community more opportunity to drop off yard waste for compost.
- Hired a staff member dedicated to Sustainability.

TOWN OF EAGLE (cont.)

- Public Works facility has reduced energy usage by approximately 60% over the past 10-years. This includes LED replacement, equipment upgrades, behavior change, and other strategies to reduce energy use.

VAIL HONEYWAGON

- Opened Organics Class III Compost Facility after 4.5 years of planning and accepted 300 yards of material in the first month of operation. The collection program has quadrupled the volume of material collected.
- Opened The Vail Community Compost Drop Site doubling participation since opening.

VAIL RESORTS (Vail & Beaver Creek Mountains)

- Launched first public facing report detailing Commitment to Zero efforts, community engagement efforts, and Epic Promise Foundation for employees.
- Level I and II ASHRAE Energy Audits completed at all Vail & Beaver Creek facilities.
- Invested over \$400,000 in energy efficiency projects at Vail & Beaver Creek, including snowmaking upgrades, refrigeration, LED lighting and more. These projects resulted in a 1.5% increase in efficiency.
- Entered into a long term renewable energy development deal, to procure 310,000 MWh of renewable wind electricity each year beginning in 2020. This will offset 100% of Scope 2 GHG emissions associated with Vail Resorts North American load, which includes Vail & Beaver Creek.
- Increased the number of locations and volumes where compost is collected at mountain food and beverage locations. Actively planning for a larger expansion in 2019 at both resorts.
- Engaged with Eco-Products as a strategic partner and official Zero Waste Partner. Transitioning all outlets to use compostable single use items as well as shift to durable/re-usable cups where possible.



Climate Action Collaborative 2019 Priorities

The Climate Action Collaborative’s working groups are made up of stakeholders from around the County who are subject matter experts in their respective sectors. The working groups of the Collaborative act as an incubator for ideas on how the community can work together to achieve our greenhouse gas reduction goals, by implementing projects that are above and beyond what a single stakeholder entity could accomplish on its own. Moving into 2019, here are the top priorities of the Collaborative’s five working groups.

BUILDINGS

- 1 Sustainable Building Code Task Force created to provide recommendations on building code adoption, exterior offset programs, and Eco-Build updates.
- 2 Generate Case Studies from around the county on energy efficiency and renewable energy projects and their impact
- 3 Pilot a benchmarking program for Collaborative partners
- 4 Continue to expand Actively Green & EnergySmart outreach and partnerships
- 5 Continue LED Swap partnerships and USGBC group events for green building continuing education

TRANSPORTATION

- 1 Finish First/Last Mile Study to identify and address barriers to using the bus. Create capital plan to implement changes.
- 2 Work with Town of Avon to improve the Zagster Bike Share program
- 3 Recommend regulations and ordinances for towns to adopt that regulate dockless bike shares and set rules for electric-assist bikes and scooters.
- 4 Set a goal for bus ridership and utilize ECO Transit upgrades to promote the bus.

MATERIALS MANAGEMENT

- 1 Promote Construction & Demolition pilot program
- 2 Increase public area recycling access
- 3 Develop textiles recycling program
- 4 Continue education and outreach on recycling and composting
- 5 Consider materials bans at the landfill (ex, cardboard)
- 6 Provide yard waste/compost drop sites in each municipality

ENERGY SUPPLY

- 1 Continue to promote rooftop solar adoption with the help of Holy Cross
- 2 Work with Holy Cross to make the Renewable Purchasing Program easier to understand to encourage more local participation in the program
- 3 Support and provide assistance to Collaborative stakeholders pursuing 100% renewable energy goals
- 4 Support and expand efforts for decarbonization through electrification of building stock

EDUCATION + OUTREACH

- 1 Maintain constant presence in local publications, the Vail Daily, and Vail Valley HOME Magazine
- 2 Provide stakeholders quarterly updates on Collaborative work through e-newsletters
- 3 Implement a behavior change campaign on the behavior identified to have the biggest impact on emissions
- 4 Continue education and outreach in schools and look for meaningful ways to engage the youth in sustainability
- 5 Continue to engage with the Spanish-speaking population of Eagle County to ensure equity in sustainability opportunities promoted by the Collaborative

Reduce Your Personal Footprint

In 2018 the Collaborative created an impact analysis of sustainability behaviors every Eagle County resident could do that would lower their personal carbon footprint. The pounds of CO2 avoided by each behavior were calculated based on specific conditions in Eagle County.

In 2019, the Collaborative will begin a Behavior Change Campaign to engage our community in a cultural change around sustainability behaviors. By identifying barriers and benefits to each behavior, we can find creative means of incentivizing or encouraging people to adopt different behaviors that will help us significantly reduce emissions. As shown through our community survey, many of our community members think local governments need to act on climate change. However, we can realize that, as individuals, we have a chance to make a difference in emissions through small changes in our day-to-day behaviors.

Transportation is slowly growing as the biggest source of emissions in Eagle County and will take a huge effort to change the culture in our community of driving single-occupancy vehicles.

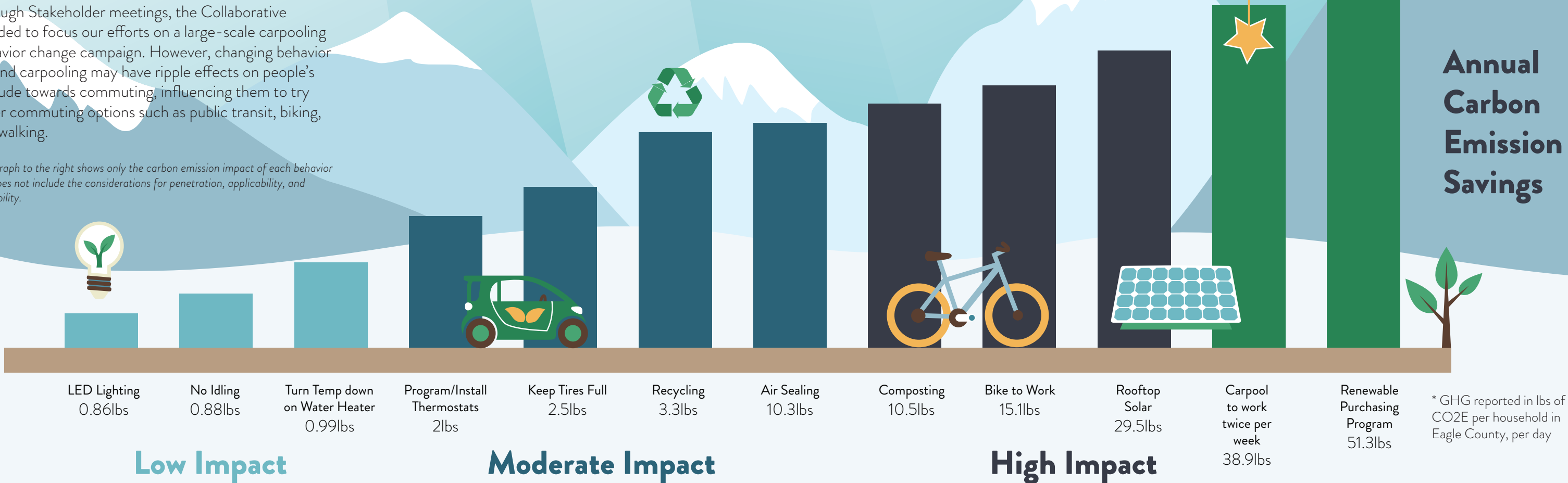
Through Stakeholder meetings, the Collaborative decided to focus our efforts on a large-scale carpooling behavior change campaign. However, changing behavior around carpooling may have ripple effects on people's attitude towards commuting, influencing them to try other commuting options such as public transit, biking, and walking.

**The graph to the right shows only the carbon emission impact of each behavior and does not include the considerations for penetration, applicability, and probability.*

How Do Your Actions Stack Up?

The graph below shows the ways in which you can reduce your carbon footprint.

Carpooling twice a week and purchasing Renewable Energy Credits were identified as the top behaviors that would have the largest effect on carbon emissions.





#BeBetterTOGETHER

www.climateactioncollaborative.org



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