SAN MIGUEL & OURAY COUNTY

Regional Climate Action Plan

Presented by Sneffels Energy Board
Prepared by EcoAction Partners

Call to Action

San Miguel and Ouray County Residents and Visitors:

We are excited to present our regional collaborative Climate Action Plan in an effort to continue our regions' shared climate leadership. This document is meant to be a working roadmap to advance projects and programming that allow our communities to pursue economic, environmental, and socially beneficial solutions to reducing our greenhouse gas emissions.

Now more than ever we are experiencing the adverse effects of climate change on our community. Rising temperatures, a reduced snowpack, and an increased number of wildfires have all demonstrated the unprecedented risk that we are facing. This document is meant to be owned by the community. Success will come from the work of each of you. We all need to step up and demonstrate leadership by protecting the natural environment that makes our home so special.

In adopting this document, our region is re-establishing our commitment to igniting change through climate action and collaboration. We will champion local, state and federal policies that prioritize the health of our environment. We will create more inclusive planning and programming through increased community empowerment and engagement. We will work with SMPA as they move towards their goal of 80% renewable energy by 2030. We will demonstrate the power that local action can have on a broad scale by setting an example of collaborative and proactive climate actions. We recognize that local action can spark change and have a global impact.

This plan lays out our commitment to taking action across all greenhouse gas emissions sectors applicable to our region: community engagement and policy, energy supply, building energy use, transportation and aviation, waste, food, water, and land use. We are calling on you to take action with us.

Sneffels Energy Board,
Facilitated by EcoAction Partners

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Key Acronyms and Partners

Partners:

BHE: Black Hills Energy

EAP: EcoAction Partners

ICLEI: ICLEI Local Governments for Sustainability

MTJ: Montrose Regional Airport

OC: Ouray County

PCI: Pinhead Climate Institute

SEB: Sneffels Energy Board

SMC: San Miguel County

SMA: Sheep Mountain Alliance

SMART: San Miguel Authority for Regional Transportation

SMPA: San Miguel Power Association

TEX: Telluride Regional Airport

TI: Telluride Institute

TMV: Town of Mountain Village

Tri-State: Tri-State Generation &Transmission

WCU: Western Colorado University

WPL: Wilkinson Public Library

Commissions, Committees & Boards:

ACCO: Association of Climate Change Officers

AQCC: Air Quality Control Commission

CAST: Colorado Association of Ski Town

CC4CA: Colorado Communities for Climate Action

OSRC: Ophir Self Reliance Committee

OWC: Ophir Water Commission

RMCO: Rocky Mountain Climate Organization

Programs:

CARE: Colorado Affordable Residential Energy Program

PES: Payment for Ecosystem Services

REMP: Renewable Energy Mitigation Program

TEMP: Telluride Energy Mitigation Program

Other:

CAP: Climate Action Plan

CSA: Community Supported Agriculture

CSG: Community Solar Generation

DSM: Demand Side Management

EVs: Electric Vehicles

GHG: Greenhouse Gas

GPC: Global Protocol for Community-Scale Greenhouse Gas Emission Inventories, 12-8-2014

IQ: Income Qualified

kWh: Kilowatt-Hour

LED: Light Emitting Diode

mtCO2e: Metric Tons of Carbon Dioxide Equivalent

OHV: Off Highway Vehicle

PUC: Public Utilities Commission

PV: Photovoltaic Solar

RECs: Renewable Energy Credits

RV: Recreational Vehicle

SAF: Sustainable Aviation Fuel

WWTP: Wastewater Treatment Plant

Executive Summary

The Ouray and San Miguel County Regional Climate Action Plan was completed in 2021 and sets the stage for the next decade of climate action across our region. Successful implementation of the following 21 objectives and supporting actions will help our community continue to reduce our greenhouse gas emissions from our 2010 GHG emissions baseline, while we continue to see economic and population growth. We are looking ahead to goals of a 50% reduction in our GHG emissions by 2030 and a 90% reduction by 2050.

This plan will act as a roadmap for continued collaborative regional actions across the eight sectors of:

Community Engagement & Policy, Energy Supply, Buildings, Transportation, Waste, Food, Water, and Land

This plan is a regional community working document. Though specific entities, governments, organizations and individuals might take the lead on certain actions, success will take deliberate partnership across our entire region. No one organization, department, or government is solely responsible for the execution of the actions listed in this CAP. This document will help guide intentional actions over the next 3-, 5-, and 10- years as we move towards a more sustainable future.

Executive Summary

Sneffels Energy Board

Recognizing the power of collaboration and leveraging grant funding, EcoAction Partners formed the Sneffels Energy Board in 2009 to address sustainability at a regional level. The SEB (formerly named the Western San Juan Community Energy Board), aims to reduce GHG emissions and consumption of valuable natural resources in the region through coordinated community engagement, project implementation, and policy change at both the local and state level.

The Sneffels Energy Board brings together local leaders to collaborate on setting and accomplishing regional sustainability goals. Partners of the Board meet quarterly to share information and experiences, design successful regional programs, identify new opportunities, and analyze progress.

The Board is made up of government and staff representatives from San Miguel and Ouray counties, the towns of Telluride, Mountain Village, Ophir, Norwood, Ridgway, and the City of Ouray as well as utility partners, San Miguel Power Association, Black Hills Energy, and a number of citizen group representatives.

The Board established regional sustainability goals and published the predecessor to this document, a collaborative Sustainability Action Plan, in 2010. They collect, analyze, and report on regional greenhouse gas emissions data and coordinate the implementation of regional action items to more efficiently reach regional goals. The group gathers and shares information from the Colorado statewide sustainability network and identifies key local priorities, partnerships, and climate solutions. The creation of this Climate Action Plan by the Board represents the ongoing regional commitment to collaborative climate action in support of a more sustainable future for our region.

Welcome to the Ouray & San Miguel County Regional Climate Action Plan

A Roadmap to our Sustainable Future:

This CAP is our regional roadmap for reducing GHG emissions and creating a sustainable, thriving future. The plan is intended to guide policy makers, organizations, businesses, and individuals in community planning across the next decade. The plan creates a timeline for high priority, ongoing, mid- and long- term actions. We focused on high-level action items that will support the whole region in achieving our GHG emissions reduction goals while improving our social and economic conditions.

A 10-Year Plan with Short- and Long-Term Goals and Recommendations… 1-, 3-, 5- and 10!

While looking ahead to 2050, our CAP presents 1-, 3-, 5-, and 10- year actions and goals to balance long-term planning with ongoing high priority actionable items.

We have integrated opportunities that are newly advantageous to our region including beneficial electrification, additional energy production capacity within Tri-State, the decreasing cost of solar PV systems, and a growing local food supply and distribution infrastructure.

As our communities continue to experience rapid growth many of our sustainability goals are becoming more difficult to reach. The plan aims to balance the actions and programs that are reducing our emissions and the inevitable growth driving them up. As our tourism economy, population, part-time visitor and construction numbers are increasing, we need to look at collaborative, creative, and progressive strategies to reach our goals. The incremental timeframe will help to integrate short-term, high priority action items with a sustainable long-term plan for our community.

Executive Summary

Continued…

Measurable & Target-Oriented:

This plan is meant to support our community in reaching our long-term goal of a 90% emissions reduction by 2050. The goals outlined in this document are supported by state and federal goals and the international community's commitments that uphold the Paris Climate Agreement to "limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels." We have shifted away from previous targets tied to per capita data. The complex nature of accounting for a variable seasonal visitor and part-time resident population makes it difficult to accurately evaluate per person values within each GHG emissions sector. For this reason, we are focusing goals on the tonnage of GHG emissions released per sector and overall consumption of resources.

Our goals & targets are aligned with Colorado's new GHG emissions reduction goals, adopted in 2019 through Colorado's Climate Action Plan to Reduce Pollution (Colorado's House Bill 19-1261), which:

- Sets Colorado statewide goals to reduce 2025 greenhouse gas emissions by at least 26%, 2030 greenhouse gas emissions by at least 50%, and 2050 greenhouse gas emissions by at least 90% of the levels of greenhouse gas emissions that existed in 2005.
- Specifies that Air Quality Control Commission (AQCC) will consider in implementing policies and promulgating rules to reduce greenhouse gas pollution, including the benefits of compliance and the equitable distribution of those benefits, the costs of compliance, opportunities to incentivize clean energy in transitioning communities, and the potential to enhance the resilience of Colorado's communities and natural resources to climate impacts.
- Directs AQCC to consult with the PUC regarding rules that affect the providers of retail electricity in Colorado.

Executive Summary

Continued…

Intended Use:

We envision several intended uses for this document. It is meant to act as a guide for planning and implementing sustainability initiatives over the next decade across the region. We designed this plan to represent the needs and priorities of the diverse stakeholder groups across the region, and hope this document is able to balance these interests and support the effective implementation of action items. The actions within this document represent more than GHG emissions reduction potential. The CAP looks at social, economic, and environmental benefits to our community and will support non-profits, community organizations, entrepreneurs, governments, individuals, and other groups in contributing to sustainable development in the region. We hope volunteers, educators, and citizens alike will use this document to find and contribute to ongoing and upcoming projects and programs. Some readers may want or need more technical information than others (e.g., Jurisdictional-specific actions identified, GHG emissions factors used in calculations, reduction estimate methodology, further resources, etc.), all of which is included in the Appendices. Lastly, the plan documents and celebrates past accomplishments and the ongoing work of our regional partners in moving our community to a more sustainable future.

A Comprehensive, Collaborative Approach: Stakeholder Engagement, Community Outreach, Analysis & Modeling

From beginning to end, the creation of our Climate Action Plan has been a collaborative process. The SEB met monthly to review progress and provide feedback. Our contributors represent a wide group of stakeholders within our region, citizens and local politicians of varying backgrounds, ages, professions, passions, and expertise, and feel this document reflects the collective intention of our community. We have gathered community input through an extensive outreach process and with the support of the SEB have integrated the priorities of our community members into the document. Moreover, as a new ICLEI member, we enter a new era of climate modeling and action assessment. Though ICLEI's ClearPath tool we join a global network of communities sharing strategies and utilizing a set of scientifically recognized GHG assessment and planning tools. We look forward to continuing our growth and learning in partnership with local and global stakeholders to best serve our community's sustainability needs.

Executive Summary

Continued…

Climate Action Mitigates Risk and Creates Opportunities:

It's no secret our climate is changing. Already we see less yearly snowfall, increased wildfire frequency and severity, and temperatures which continue to rise. Because much of our livelihood relies on our interactions with our shared landscape, these changes endanger us all. Our collective response to climate change not only mitigates risk, but creates new opportunity for residents, businesses, and visitors. Opportunities vary across sector, yet no sector is exempt. In other words, no matter how you engage with and participate in our community, this CAP provides an avenue to reduce GHG emissions, save money and improve our social environment!

Climate Action & Environmental Stewardship are Regional Community Values:

San Miguel and Ouray County are committed to environmental stewardship and taking action to preserve and protect our climate and natural resources. Collaborative climate efforts have been the common narrative in our community since long before the creation of the SEB.

Our Community has a long history of stepping up to care for our natural resources. From long-time logging prevention on our forest lands to pursuing renewable energy sources and transitioning to year-round mountain recreation economies, we have worked to preserve what makes this place so special. In the early 2000's the community raised over $50 million to purchase and preserve Telluride's Valley Floor. This strong sense of community activism presides across the San Juan's and makes it possible for the SEB to pursue the goals we have established.

Executive Summary

Continued…

Jurisdiction-Specific CAPs, GHG Inventories, and Goals:

Several individual jurisdictions within the region have developed GHG Inventories, Energy Action Plans or Climate Action Plans, and goals specific to their community to direct GHG reduction actions and track local accomplishments. These community-specific plans complement the regional CAP by providing actions that are more specific to be accomplished per jurisdiction. Community-specific and municipal-specific GHG Inventories help track program and project results on a more granular level. All community-level and regionally collaborative accomplishments contribute toward reaching our greater GHG reduction goals.

Town of Telluride: Municipal and community-level GHG tracking in place; Telluride-specific CAP developed 2015, updated in 2021; target of carbon neutrality.

Town of Mountain Village: Municipal & community-level GHG tracking in place; TMV-specific CAP developed 2020; target of carbon neutrality by 2050.

San Miguel County: Municipal & community-level GHG tracking in place; target of carbon neutrality

City of Ouray: Through 2012, the City adopted an Energy Action Plan, guiding them toward implementing many actions that reduce government energy use into the future.

Ouray County: Adopted CC4CA goals and strategies.

Town of Ridgway: Ridgway encourages the use of carbon-free and renewable energy systems within the town and supports the goal of carbon neutrality for Colorado.

Town of Norwood: Adopted Colorado's previous state goals of reducing GHG emissions 20% by 2020 along with the rest of the Sneffels Energy Board.

Town of Ophir: Established the Ophir Self Reliance Committee that is working towards the goal of carbon neutrality and the Ophir Water Commission that is implementing water efficiency actions.

Appendix 1 displays jurisdiction-specific actions prioritized for accomplishment by 2030. Because our region varies drastically in topography, energy requirements, financial resources, and economies, some municipalities and jurisdictions have prioritized specific actions that have already been accomplished elsewhere in the region. These actions, while important, were not included in the regional plan as they are only applicable for one or a few individual jurisdictions.

Executive Summary

Continued…

Shared Regional Resources:

Many resources in our counties are shared across jurisdictions making clean delineation of GHG responsibilities between each jurisdiction challenging. A prime example is the Telluride Wastewater Treatment Plant (WWTP), which is used by the communities of Telluride, Mountain Village, and nearby communities located in San Miguel County. While Telluride is responsible for maintenance and operations of the plant, Mountain Village contributes 15% of funding, and the plant is located outside of both town limits, so associated electricity and natural gas used to operate the plant are categorized as part of San Miguel County's usage. The gondola serving Mountain Village and Telluride is another excellent example of a collaborative and shared critical resource for these closely-tied communities. Thus, while community-specific inventory values and plans are important in directing specific actions, situations like the WWTP make it clear that the region must closely collaborate toward accomplishing GHG reduction goals.

The regional communities also share common challenges associated with an increase in tourism, an increasing cost of living, and a shortage of affordable housing for full-time locals. This common scenario in tourism-based economies has escalated in recent years creating an imminent need for us to collaboratively address housing needs and plan for the future. Much of our workforce and material goods come from surrounding communities, which closely ties us to the broader Western Slope region. Providing local, affordable housing decreases transit-associated GHG emissions while maintaining the cultural and economic viability of our communities. GHG reduction goals are absolute, not based on census population or our visitor economy, so we must include consideration of the changing dynamic and increasing use of resources within our region while planning GHG reduction strategies.

Our Regional GHG Inventory

Overview:

The Sneffels Energy Board established a baseline GHG Inventory based on 2010 data from which to track progress toward 2020 goals and beyond. Before this time, community-wide utility use and emissions were unknown, and some governments were not yet tracking their own utility use. This 2010 process established a baseline GHG Inventory and a process for tracking resource consumption and associated emissions.

EcoAction Partners updates the GHG Inventory annually with available data, analyzes the results, and annually reports on progress to our communities. Our overall regional GHG emissions have decreased (See Figure 1 pg. 14) since 2010, despite an overall increase in fossil fuel consumption due to an increased economy, visitor numbers, and full-time resident population. We have successfully reduced our energy use emissions by 20% through 2020, according to our 2020 GHG Inventory analysis as seen in Figure 2 (pg. 14), as a result of decreased electricity consumption from efficiency improvements and a significant increase in renewable energy production in our electricity mix.

Our Regional GHG Inventory

Figure 1

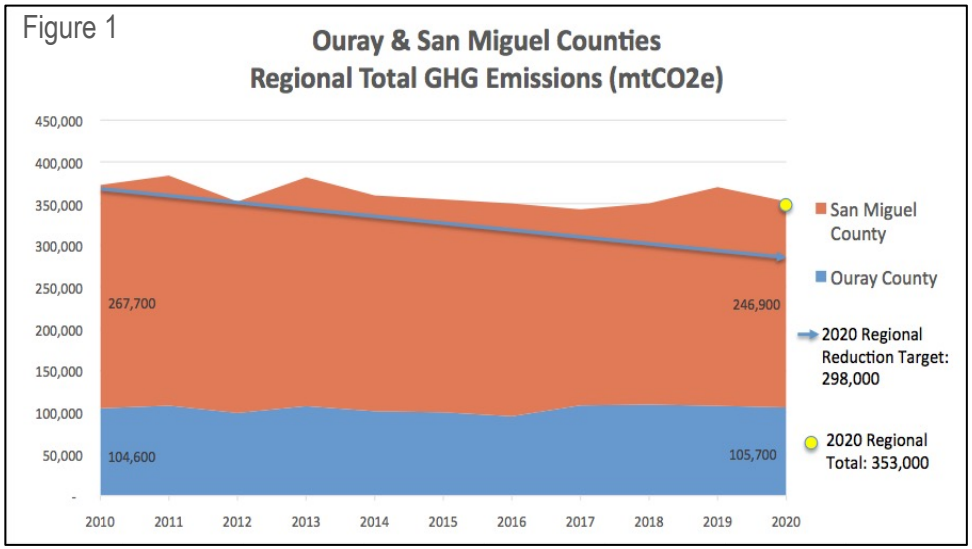
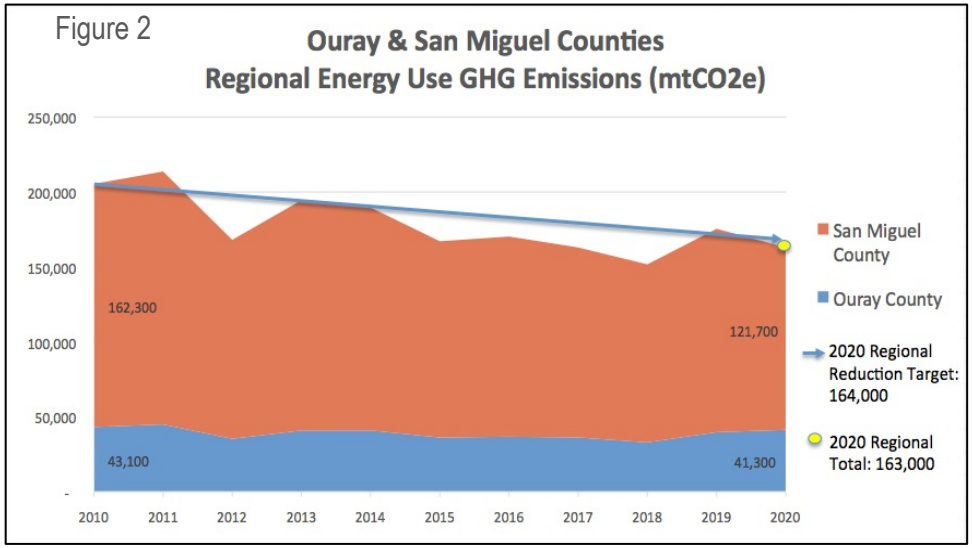


Figure 2



These charts show the trend of our total GHG emissions from 2010-2020 and emissions associated with building energy use which accounts for 50% of our overall emissions and is supported by the most accurate consumption data. By tracking our emissions annually, we can analyze the influence of annual fluctuations from weather, economic shifts, COVID, and other impacting anomalies, while also tracking our progress toward goals. Accurate data has not been available on an annual basis for a few categories of our emissions, so it is helpful to review building energy emissions separately to more accurately understand the trends in this key sector.

EcoAction Partners is in the process of converting our regional GHG Inventory calculation methodology to ICLEI's ClearPath online GHG tracking and analysis tool, the leading online platform for complete GHG inventories, forecasts, climate action plans, and monitoring at the community-wide or government operation scale. Through the use of ClearPath, our Inventory will be directly comparable to other cities and communities across the U.S., and around the world, including a number of similar rural mountain communities. Additionally, ClearPath provides GHG forecasting and tracking tools to help guide us toward our GHG reduction goals.

Our baseline 2010 regional GHG Inventory was established in the early years of community-wide GHG emissions calculations using the state-of-the-art calculation methodology of the time. Since then, ICLEI has been at the forefront of leading and influencing methodology changes that are defined in the GPC Protocol. Once the conversion to ClearPath is complete, our GHG Inventory from 2020 forward will no longer reflect a reduction in electricity emissions associated with RECs (see pg. 20) or other carbon reduction offsets. Progress with these activities will continue to be calculated separately as "information-only" data, in order to track and understand the success of our policies, programs and actions. The charts above reflect our historic GHG tracking methodology for purposes of consistency across 2010 to 2020.

Our Regional GHG Inventory

Geographic Boundary & Scopes:

We calculate emissions associated with San Miguel and Ouray Counties, including electricity production, building energy and other uses of utilities, vehicle and airline transportation, food consumption, waste, and material use. Scope 1 and 2 emissions sourced from directly within our boundaries are officially included in our updated 2020 GHG Inventory, in accordance with the GPC. Traditionally since 2010, we have also included some Scope 3 emissions for services located outside of our county boundary but that we have a direct influence over. For example, waste transported to landfills and recycling facilities in other counties, the Montrose Regional Airport of which 75% of emissions are associated with travelers to our counties, and food consumption, all fall within the scope 3 category, but are interrelated with our region's emission reduction goals. We continue to track data associated with these scope 3 factors in order to track progress towards reaching sustainability goals. It is important to recognize that successfully reducing GHG emissions will also require action at the state and federal policy-making levels. For this, the SEB continues to prioritize highly collaborative planning and programming to better address the scope 3, and other complex, region wide emissions sources.

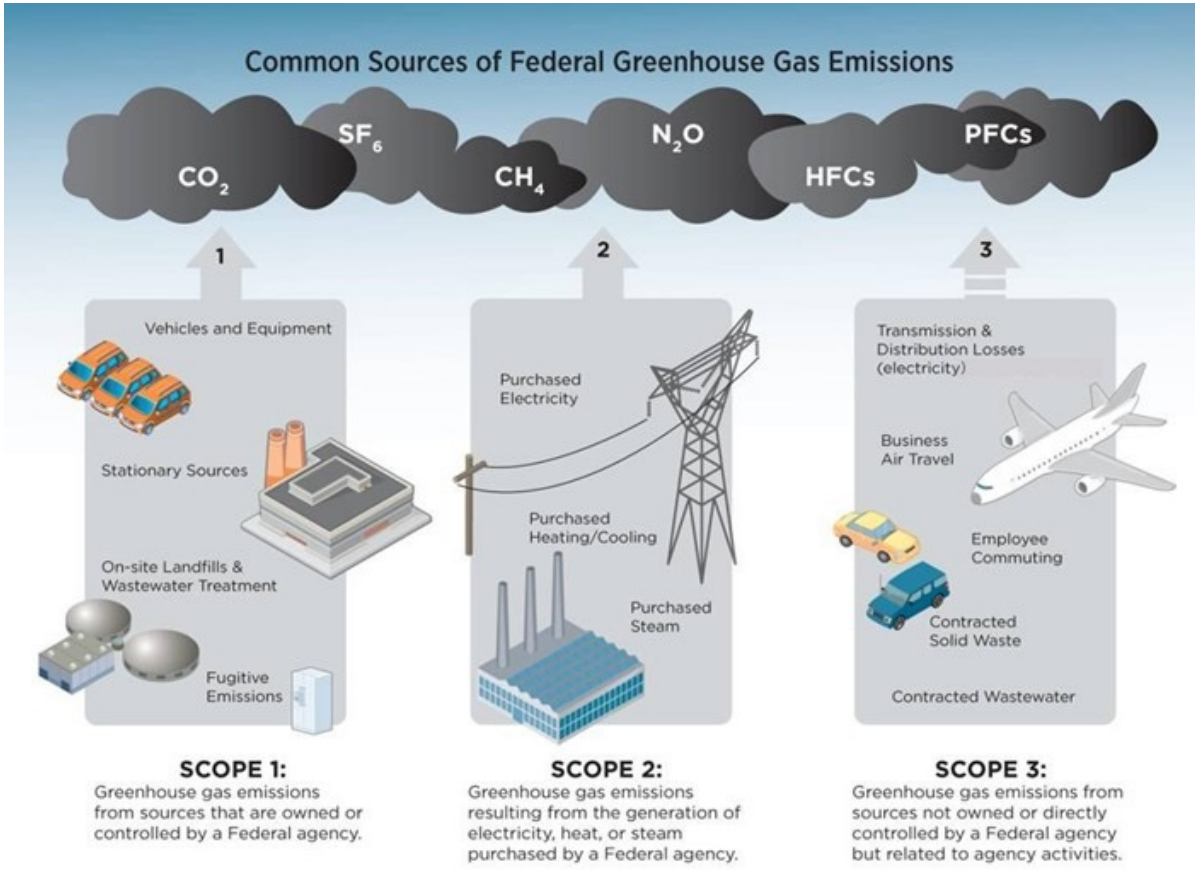


Figure 3 https://www.epa.gov/greeningepa/greenhouse-gases-epa

Our Regional GHG Inventory

Geographic Boundary & Scope Continued ….

EcoAction Partners conducts an annual regional and jurisdiction specific greenhouse gas inventory to analyze our regional emissions breakdown and update programming to reflect our emissions profile. The geographic boundary of our inventory includes San Miguel and Ouray County. We have several key scope three emissions (outside of the inventory's geographic scope) which we account for in our program creation and regional policy decisions. These include the Montrose Regional Airport, the 3XM and Bruin Waste Management waste collection facilities, and material consumption such as food.

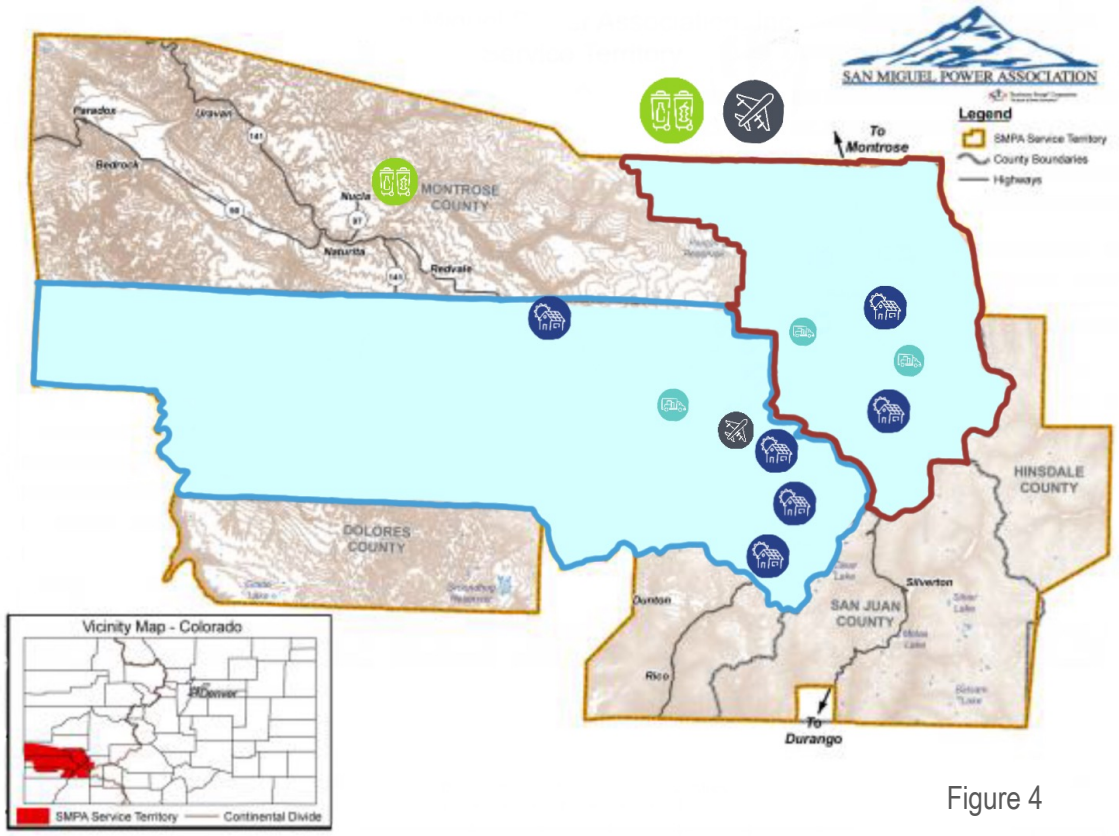


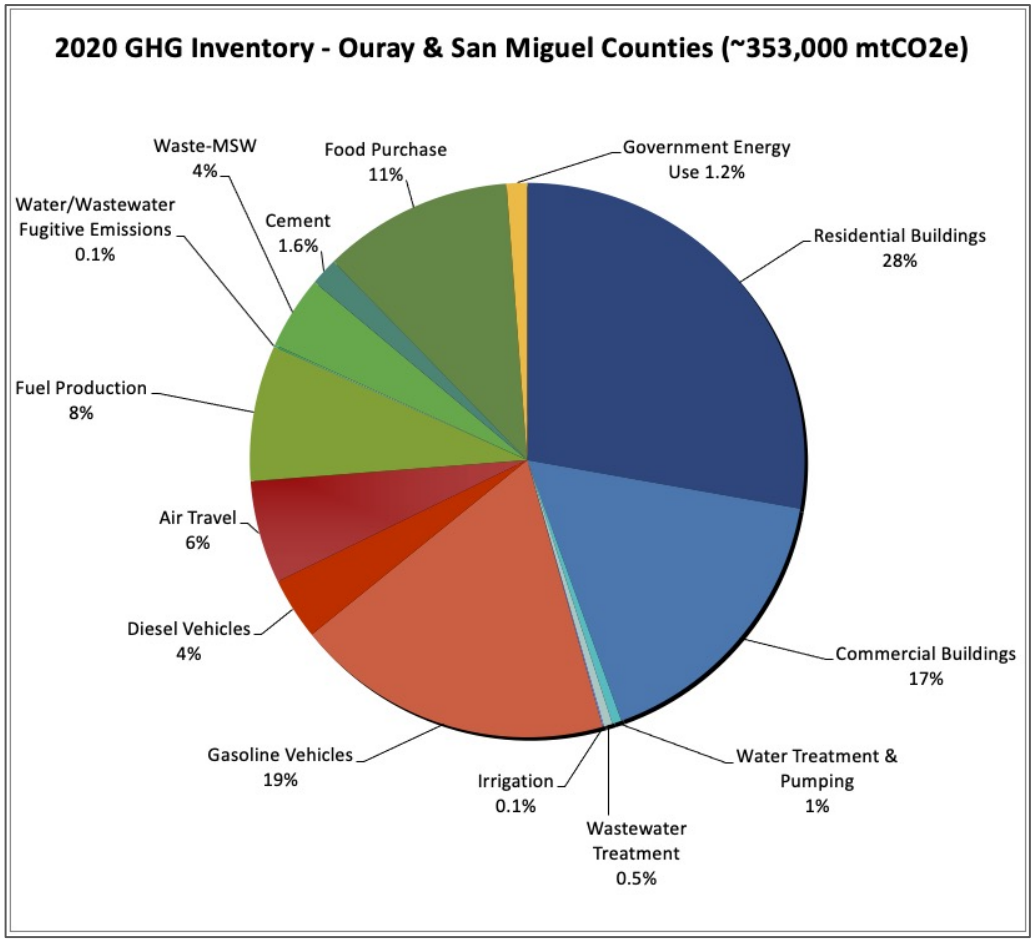
Figure 4

KEY

- Airport
- Key Jurisdiction
- Waste Management Facility
- Major Highway
- San Miguel County
- Ouray County
- SEB Board Territory

Our Regional GHG Inventory

Sources of GHG Emissions:



Buildings produce the majority of our GHG emissions (28% residential, 17% commercial in 2020). This 45% includes a reduction association with electricity offset by the purchase of REC's, without which building emissions would produce well over 50% of our region's emissions. Thus, reducing GHG emissions associated with buildings remains our highest priority.

Transportation related GHG emissions from vehicles and air travel account for 29% of our emissions. Air travel includes the Telluride Airport (TEX) and a percentage of travel through the Montrose Regional Airport (MTJ), as almost 75% of passengers through MTJ are visiting our region.

We account for major material production aspects of our GHG emissions as well, including food, fuel production and waste, which account for the remaining 26% of our emissions. As a remote, rural region with a tourist-based economy, tracking these emissions is important to us, as we recognize our responsibility to reduce our overall contribution to global emissions.

Figure 5

Note: This GHG emissions pie chart currently reflects our historical GHG Inventory calculation methodology which accounts for RECs as offsets, for consistency purposes of this document.

Our Regional GHG Inventory

Forecasting: Business As Usual

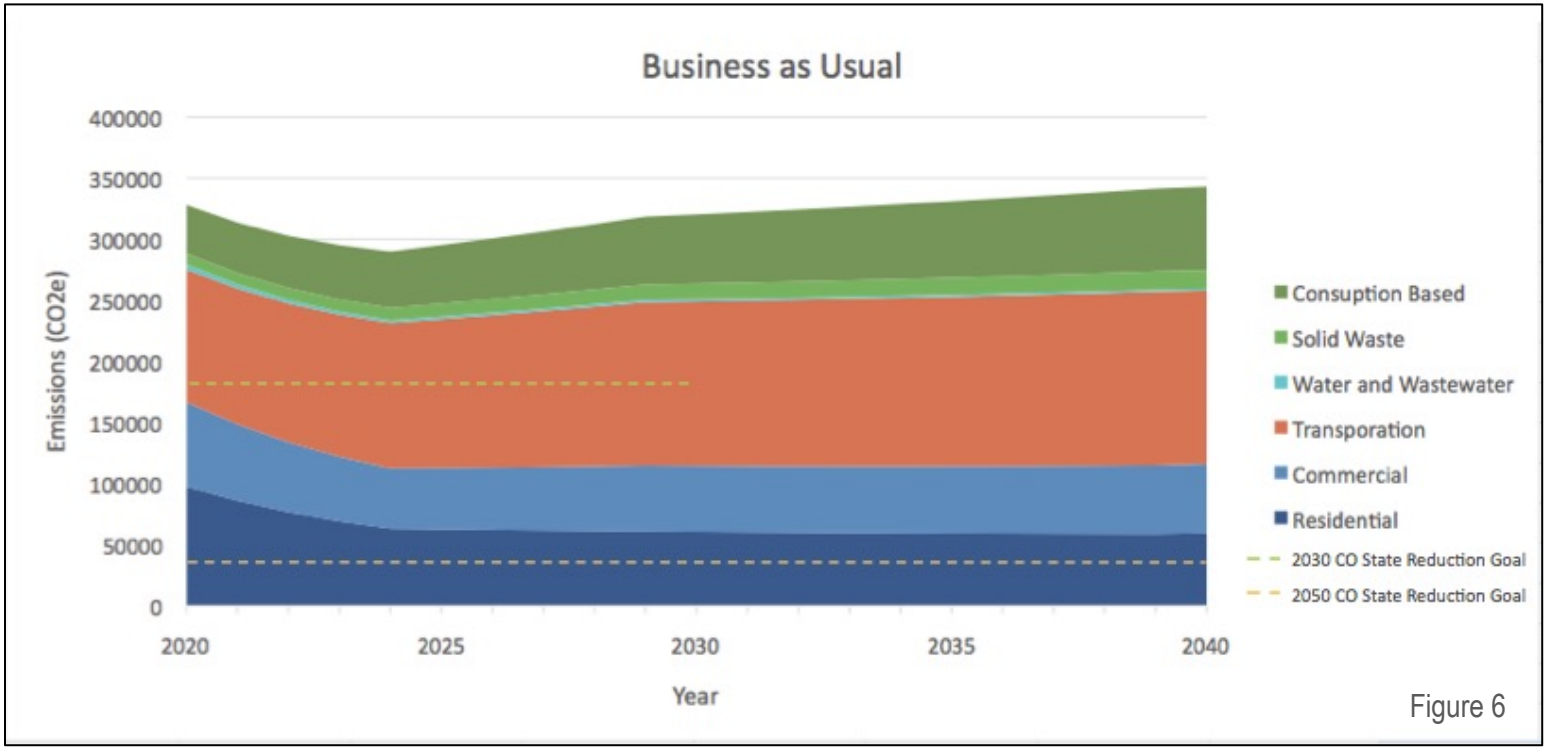


Figure 6

This "business as usual" forecast includes TriState's emission reduction promises detailed in their Responsible Energy Plan – 50% renewable supply by 2024, and 100% renewable supply by 2040. Though this trajectory will noticeably reduce our emissions associated with grid supplied electricity, it will not bring our region in line with either 2030 or 2050 GHG reduction goals without implementing additional strategies. The increasing trend of GHG emissions is due to a growing tourism economy. While the rate of this growth is predicted to decrease it continues to impact all sectors except residential energy use.

Fortunately, because we have the support of both SMPA and TriState in the renewable energy transition, we can focus on reduction strategies outside of grid supplied electricity, namely local renewable energy production, beneficial electrification, waste reduction, transportation, and consumption-based emissions (which includes waste, food, and cement). These actions are incorporated into the reduction pathway on page 19.

See the CAP supporting documents webpage for details on the calculations and assumptions made in these forecasts.

Our Regional GHG Inventory

Forecasting: Reduction Pathways

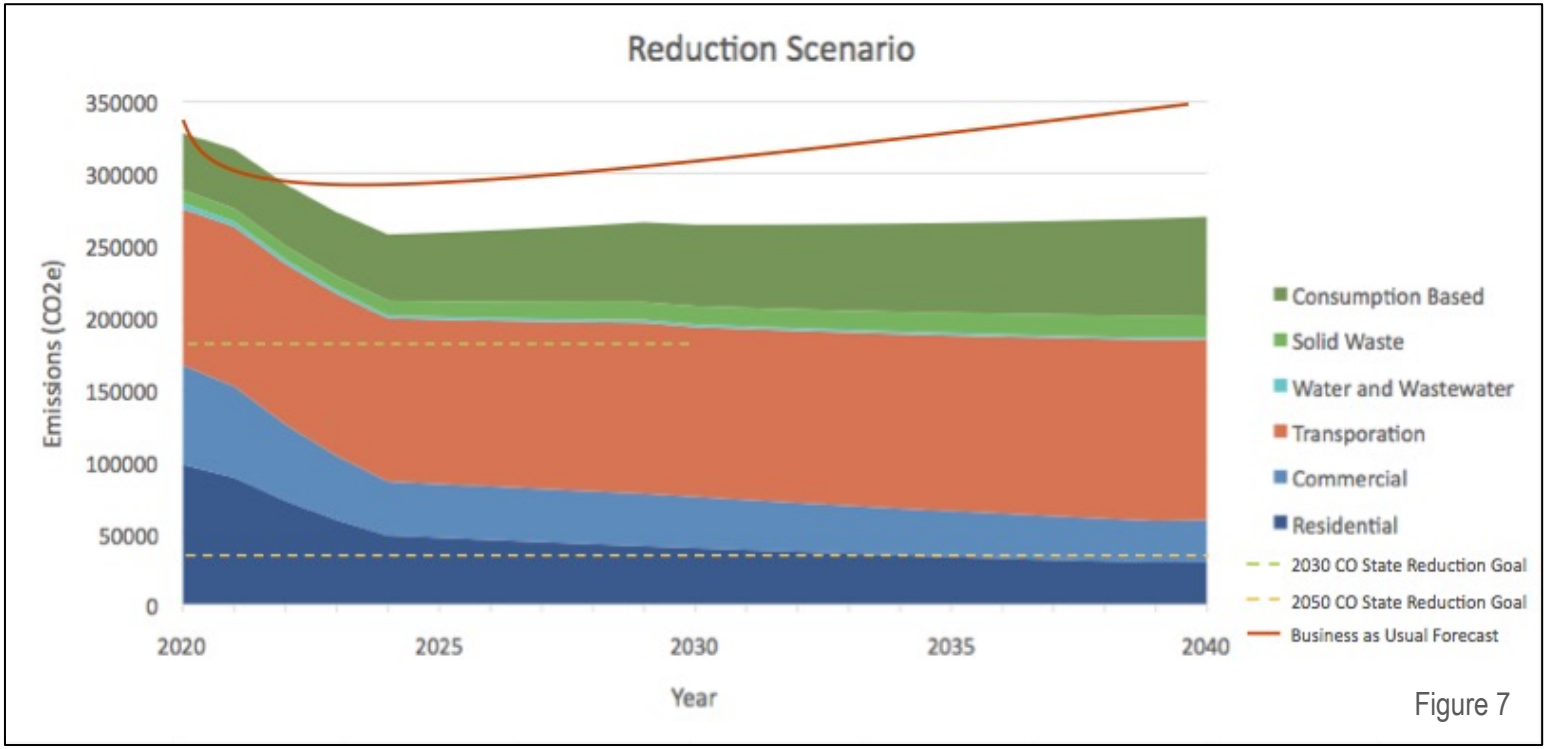


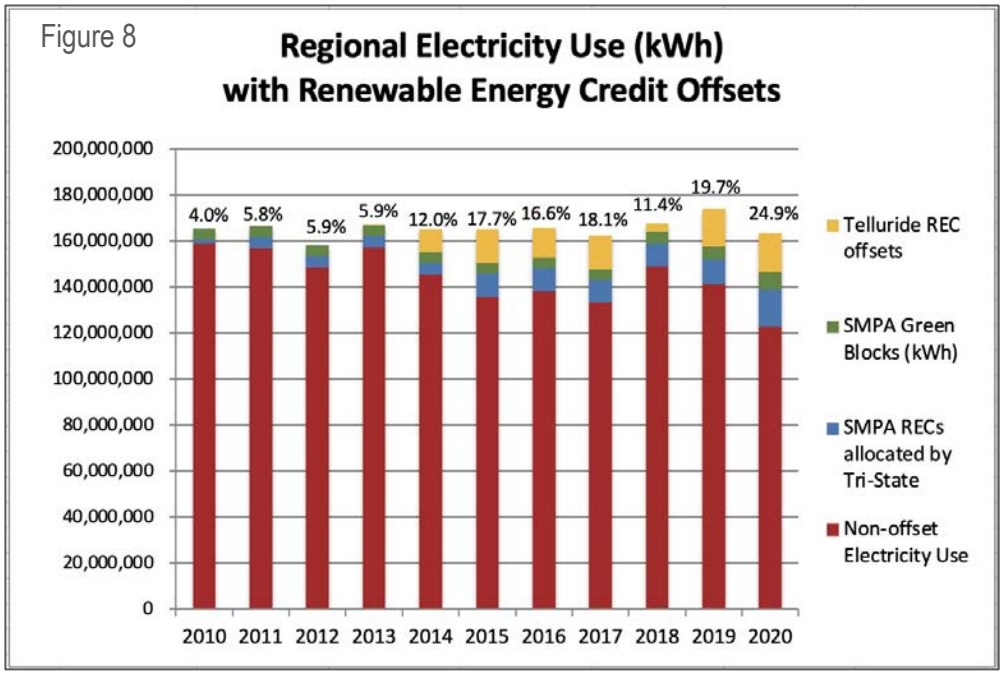
Figure 7

This chart displays the combined effects of both high-level and localized reduction strategies, including EV adoption, conversion of residential and commercial spaces from natural gas heating to electric heat pumps or boilers, improved building energy codes, and other actions outlined in this plan. This pathway shows that we can significantly reduce our GHG emissions associated with both residential and commercial energy use. However, if our tourism economy continues to grow at the current pace, we will need to implement creative comprehensive policies and actions in order to reduce our emissions associated with commercial buildings, transportation and material consumption to reach our goals.

See the CAP supporting documents webpage for details on the calculations and assumptions made in these forecasts.

GHG Offsets: Renewable Energy Credits and Carbon Offsets

Figure 8



RECs: tradable, non-tangible energy commodities in the U.S. that represent proof that 1 MWh of electricity was generated from an eligible renewable energy resource (renewable electricity) and was fed into the shared system of power lines, which transport energy. Telluride's REC offsets are associated with power produced by the Ridgway Hydro Dam, and are thus subject to fluctuations in annual precipitation, such as the drought conditions in 2018.

Carbon offset: a greenhouse gas (GHG) emissions reduction or carbon sequestration enhancement made in order to compensate for, or offset, an emissions made elsewhere such as air travel. Each offset represents one metric ton of carbon dioxide or its GHG equivalent. Carbon offsetting has gained appeal among consumers of services in emission sectors that do not have immediate opportunities to implement low emission or zero emission strategies. Our local partner Pinhead Climate Institute offers Colorado-based carbon offsets.

Renewable energy credits (RECs) have been part of our regional strategy for supporting renewable energy. While RECs are not a guarantee that additional renewable energy is produced that would not have been produced otherwise, and RECs do not actually reduce the region's GHG emissions, purchasing RECs is a first step to demonstrate public demand and commitment to renewable energy while we work to install local renewable energy sources. REC purchases are also not restricted by SMPA's contract with Tri-State, while non-net metered local renewable energy production is currently limited. Thus, RECs have been and will continue to be part of our strategy moving forward.

Locally, SMPA provides REC purchase opportunities to its members through their Totally Green Program, which is an easy opt-in program for members to choose to offset electricity use by 100%. In addition to the RECs, the funds collected through the Totally Green Program support local renewable energy and energy efficiency projects and incentives.

Locally, we have a few options to increase the percentage of renewable power that is electrifying homes and businesses: build onsite solar, add community solar gardens, build a large, utility-scale solar array owned by Tri-State, and develop local hydropower. Because these projects will take time to develop, in the meantime we support the purchase of RECs to demonstrate to our electricity provider that we support a transition to renewable energy.

To this end, we have tracked our purchases of RECs since 2010, and currently offset 25% of our electricity use. We also track local renewable energy installation capacity, to assist us in measuring progress toward local renewable energy generation.

Introduction to the Regional CAP

Objective:

Broad scale or big picture goals and changes that must occur to reach our regions' GHG emissions reduction goals.

Action:

Smaller scale projects, programs and policies that contribute to achieving an objective.

GHG Reduction Potential:

A measure of the GHG reduction potential for each objective and action. These values were derived from ICLEI's ClearPath model and simplified to a value of 1-4, with 4 having the highest potential for GHG reduction.

GHG Reduction Potential	MT CO2 Reduced If Action is Fully Implemented
1 =	**4-1900 Mt by 2050 – Marginal**
2 =	**1900 -3200 MT by 2050 – Small**
3 =	**3200-9600 mt by 2050 – Medium**
4 =	**9600-46000 Mt by 2050 - Large**

ACTION	GHG REDUCTION POTENTIAL				CO-BENEFITS					TIMELINE	PARTNERS
Action Listed Here					=	$		+		Years Expected	

Co-Benefits:

Additional positive impacts associated with achieving our objectives and actions. Nearly all objectives and actions within this plan have co-benefits. These benefits were determined through reviews of academic research, case studies from similar regions, and will be further informed by community engagement through 2022. The *CAP supporting documents webpage* includes a list of supporting literature for co-benefits of various objectives and actions.

- = **Promotes Equity**
- $ **Fosters Economic Sustainability**
- **Improves Local Environmental Quality**
- + **Enhances Public Health & Safety**
- **Builds Resilience**

Timeline:

Amount of time in years expected to complete an objective or action: Current, 1, 3, 5, 10, Ongoing

Partners:

Community stakeholders who can and are likely to contribute to achieving an objective or action

High Impact Sectors

The CAP addresses emissions, accomplishments, objectives and goals across 8 sectors that are closely tied to our regional emission reduction and sustainability goals.

Community Engagement & Policy
Stakeholder partnerships and ownership of policy and decision-making

Energy Supply
Generation of our community's electricity

Building Energy Use
Energy used by commercial and residential buildings

Transportation
Emissions associated with on-road movements and aviation operations

Waste
Trash, recycling, and compostable materials; landfill reduction and diversion

Food
Emissions from food production, transportation, and storage

Water
Water supply, use, pumping, and treatment and watershed health

Land
Land use and health, sequestration opportunities, and agricultural use

Community Engagement & Policy

We felt it was important to highlight actions around community engagement and policy. Reaching our regional emissions reduction goals will not happen if we solely rely on external forces to reduce our carbon footprint. Individual actions make a difference, and we need to step up as a community to prioritize policies and partnerships that move us toward our goals. Everyone has a role to play and only through working together will we reach our goals.

We hope to see community ownership of these actions and have prioritized collaboration throughout this document. We aim to address any conflicting priorities across the region and align with regional GHG reduction goals and a commitment to a more sustainable future. Ideally, emissions analysis will be integrated into all decision making, centering scientifically informed policy. The nature of climate action is intersectional. We recognize that this interconnection requires actions across the board to achieve the change we hope to see in our community.

Community Engagement & Policy

Community Engagement & Policy Accomplishments

- Development of and continued collaboration of regional Sneffels Energy Board.
- Participation in state and nationwide organizations such as CC4CA, CAST, ACCO, Climate Mayors, Mountain Pact, RMCO, and others.
- Telluride Institute is developing a growing relationship with Western State University's Masters in Environmental Management program, bringing student-based projects to the region, increasing our capacity for environmental work.

Community Engagement & Policy Recommendations

OBJECTIVE 1: Increase community engagement and continue to prioritize collaborative and intersectional decision making and action implementation.

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Continue to participate in regional collaboration of local governments, stakeholders, and utilities to drive regional clean energy transition & GHG emissions reduction.			Ongoing	SEB
Participate in State-level organizations to drive regional clean energy transition & GHG emissions reduction.			Ongoing	CC4CA, SMPA, EAP, SEB
Consider GHG emissions as part of all decision-making processes. Utilize a GHG impact assessment tool, if available, to quantify GHG emissions or sequestration impacts.			Ongoing	All governments, partner organizations, stakeholders, businesses & residents
Increase community-level outreach and engagement with implementation of the regional Climate Action Plan.			1-3	EAP, SEB, community organizations, business organizations
Collaborate between municipalities & organizations on actions when beneficial.			Ongoing	All governments, local organizations

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Energy Supply

Greenhouse gas emissions associated with our energy supply primarily stem from the use of electricity and natural gas in residential and commercial buildings. Energy supply is embedded within and accounted for in the building energy use GHG inventory sectors and analysis. Energy supply is separated into its own sector with prioritized actions, as changes in electricity production and sources of energy can significantly impact the reduction potential of actions in other GHG sectors. Thus, focusing on supply-side planning will bring about drastic reductions independent of recommended actions for businesses and residents.

Electricity and natural gas use accounts for over 50% of San Miguel and Ouray County's total GHG emissions. The carbon intensity of this sector directly relates to the fuel associated with the supply of these utilities from SMPA and BHE. Natural gas has its own emissions factor associated with its use as a direct energy source for heating, hot water, cooking, and more. Because we are unable to influence the production or emissions factor associated with natural gas, recommendations in this section focus on transitioning electricity supply to renewable sources. The mix of these sources of electricity directly impact the emissions associated with electricity use, with fossil fuel resources having a significantly greater carbon intensity than renewable energy sources.

Energy Supply

Fortunately, SMPA has committed to 80% renewable production by 2030. Figure 9 (pg. 27) shows the trend toward increasing renewable energy sources and a decrease of fossil fuel sources within the electricity supplied through SMPA from Tri-State. These changes, along with efficiency improvements and the viability of community energy production, make achieving drastic GHG emissions reductions in the coming decade a realistic possibility. The state of Colorado plans for an 80% reduction of greenhouse gas emissions associated with electricity production and a 37% reduction for emissions associated with natural gas. Our region is well positioned to achieve these goals by contributing to statewide GHG reduction while providing savings for our residents and businesses through a mix of rooftop and community solar, and larger regional renewable generation.

SMPA's contract with TriState includes a limit on local energy generation and distribution within SMPA territory. While this limit was recently expanded to allow for additional community solar farm capacity, it still controls overall production capacity allowable. According to SMPA's contract with Tri-State:

- The Total SMPA system-owned or controlled generation shall not exceed 5% of that SMPA's annual energy requirements in any calendar year, and the total installed generation nameplate capacity shall not exceed 15% of that SMPA's annual peak demand in any calendar year. Generation projects that are eligible under this Policy include renewable or distributed generation under the ownership or control of SMPA.
- Tri-State has instituted a new Policy 119 for community solar generation projects. A community solar generation project (CSG Project) is defined as an SMPA owned or controlled (e.g., through a power purchase agreement) solar photovoltaic generation project that is intended to be marketed by SMPA under subscription arrangements to SMPA's retail customers. Eligible CSG Projects under this policy are limited to an aggregated total of the lesser of (a) 4,600,000 kilowatt-hours or (b) CSG Projects sized to serve no more than two percent (2%) of the 2018 Tri-State energy sales (kWh) to SMPA.

It is important to note, that net-metered renewable energy systems below 10 kW, such as a typical residential roof-mounted PV solar array are not limited by this cap on larger scale power production within SMPA's region. Therefore, increasing the installation of smaller net-metered systems has the potential to significantly reduce our electricity-associated GHGs without counting towards the local generation limits.

Energy Supply Trends & Accomplishments

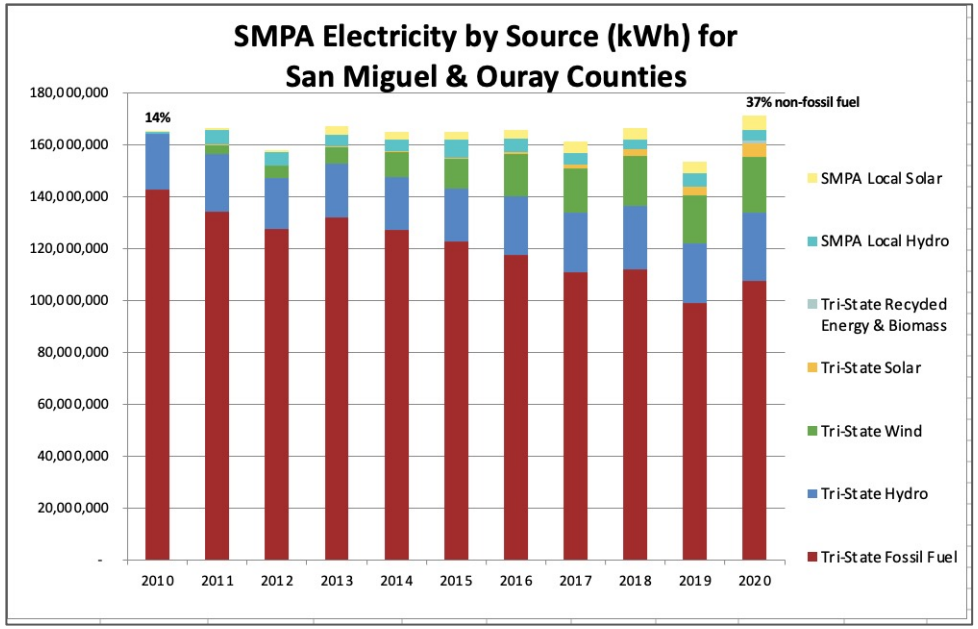


Figure 9

The chart above shows our electricity fuel mix based on production and transmission data provided by Tri-State and local renewable energy production within SMPA territory. Tri-State's fuel mixture was calculated based on annual member reports for 2010, 2016, and 2020. The trend for Tri-State's fuel mix between 2016 and 2020 was calculated linearly.

SMPA provides electricity to homes and businesses in our region. SMPA's power supplier, Tri-State, provides SMPA with 37% of its energy from renewable resources including wind, solar, and hydropower. The remaining 63% of Tri-State's energy currently comes from fossil fuels. This mixture defines our electricity emissions factor (mtCO2e/kWh).

- Increase in non-fossil fuel electricity production from 13% to 37% as shown in Figure 9 at left, as a result of local public pressure.
- SMPA territory has successfully achieved 5% local renewable energy power production, as a result of SMPA, government, and private projects built and operating across the area.
- Due to pressure by progressive cooperatives such as SMPA, this 5% capacity limit set by SMPA's contract with Tri-State has been expanded to allow for an additional 2% of generation from community solar arrays.
- SMPA's first community solar array in Paradox Valley was the 2nd largest of its kind when constructed and was completely subscribed within three years.
- SMPA's 2nd array is an income-qualified solar array located outside of Norwood has recently become 100% subscribed.
- SMPA and Tri-State have both adopted a progressive renewable energy production goal of 80% renewable production by 2030.
- SMPA's Green Blocks program has changed to Totally Green, as a result of community-level input. The program is now easy to join to offset 100% of a members' monthly electricity use.
- Net metered renewable electricity production has increased by over five times since 2010.
- Mountain Village provides additional financial incentives for net metered solar PV systems.

Energy Supply Recommendations

OBJECTIVE 1: Increase percentage of electricity provided by renewable energy sources.

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Establish a local renewable energy generation target and plan to achieve it.	●●●●	= $ ● + ●	3-10	SMPA
Identify and eliminate barriers to local renewable energy production.	●●●○	= $ ○ + ○	3	SMPA, WCU
Advance regional grid flexibility to enable a modernized renewable electricity supply.	●●●●	= $ ○ + ●	5-10	SMPA
Install renewable energy capacity on government buildings.	●●●○	= $ ○ + ●	1-5	SMPA
Incentivize and promote net-metered solar systems on residential and commercial rooftop or pole mount locations.	●●●●	= $ ○ + ●	Ongoing	SMPA, Solar Installers, HOAs
Encourage community participation in SMPA Totally Green program for electricity not covered by local renewable energy production.	●●●●	= $ ● + ○	Ongoing	SMPA, WPL, ROCC, Rotary Club Telluride Inst., HOAs
Support SMPA in increasing community solar arrays in the region.	○○○○	= $ ○ + ●	1-5	SMPA, WCU, Americorps VISTA
Expand free and low-cost solar programs for low-income households.	●●○○	= $ ○ + ●	1-5	SMPA, WCU, Americorps VISTA,
Work with renewable energy installation businesses to promote residential energy incentives and financing opportunities.	●●○○	= $ ○ + ●	1-5	SMPA, Solar Installers

KEY

GHG Potential 1-4 | = Promotes Equity | $ Economic Sustainability | ● Environmental Quality | + Public Health & Safety | Builds Resilience

Building Energy Use

Buildings are currently the primary consumer of energy in our region and therefore are the largest emitting sector with 45% of our total GHG emissions. Emissions in this sector come from electricity and natural gas use, and a small amount of propane consumption. Thus, reductions in the building sector will come from supply side transition to renewable energy, beneficial electrification, and increased efficiency of our buildings.

Many of our commercial buildings are mixed use and include residential space, and many of our residences are larger than many commercial spaces across the region. There is significant cross-over between the recommended actions for buildings in both the residential and commercial sectors, so our objectives and prioritized actions apply to all buildings. With a complex mix of historical buildings and new construction, unimproved, and newly renovated buildings, recommendations to reduce energy in the building sector are diverse and aim to address building energy use from several angles to benefit all community members.

Building Energy Use

Residential energy accounts for 28% of our region's total GHG emissions. San Miguel and Ouray County's residential community is primarily comprised of free market and workforce housing rentals, which vary in age, quality, size, and occupancy. These residences may be single family homes, multifamily properties, mobile homes, and residences in mixed-use buildings.

Commercial energy consumption accounts for 17% of our region's GHG emissions, and similarly to residential energy, nearly all these emissions come from electricity and natural gas use. Free market and subsidized properties comprise San Miguel and Ouray Counties' commercial building stock and vary in age, quality, size, and occupancy. These buildings may be owner-occupied and/or tenant-occupied, condominium style and mixed-use buildings.

As our tourism economy, population, and part-time visitor numbers cause an ongoing increase in construction, the number of utility accounts have increased as well, causing a challenging situation to address with the aim of reducing our total GHG emissions. Our collaborative and focused actions must include creative and progressive strategies if we are to reach our goals.

Building Energy Use Trends - Electricity

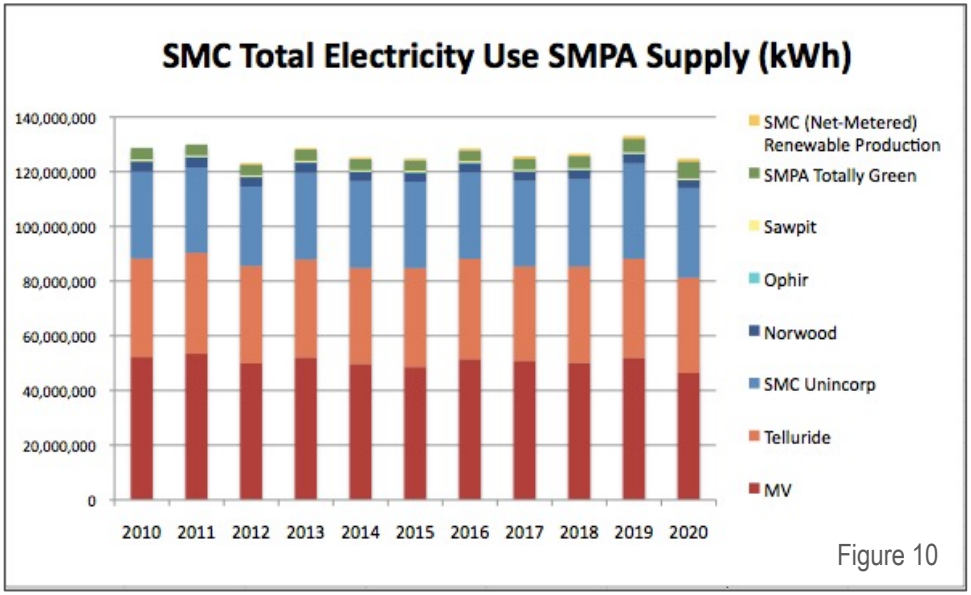


Figure 10

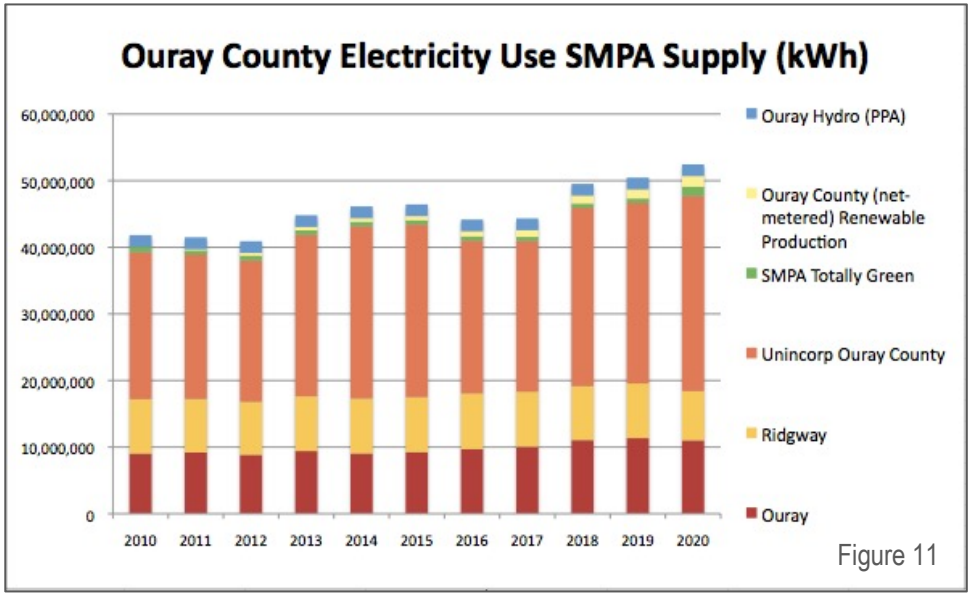


Figure 11

EcoAction Partners tracks annual electricity use and local renewable energy production for analysis by the SEB. Electricity consumption in San Miguel and Ouray Counties is graphed by jurisdiction in the charts above. The top of each bar indicates the total electricity use in each county per year. Electricity use that is offset by SMPA Green Blocks or produced through local renewable energy is separated from general usage in order to show progress on each of these strategies.

Electricity use across SMC has held relatively steady aside from a noticeable increase in 2019 and a COVID-19 associated decrease in 2020, indicating success with our efficiency programs. The Town of Ridgway and City of Ouray show a similar trend. The 2019 increase is likely a combination of a noticeable increase in tourism as well as the beginnings of transition to electricity from fossil fuel use. It could also be accounted for due to an increase in installation and use of air conditioning systems during summer months as temperatures continue to rise. The decrease in 2020 is attributed to the impacts of COVID-19. Ouray County experienced an increase in commercial activity that increased electricity consumption from 2018 through 2020.

In 2019 SMPA revamped their Green Blocks program to Totally Green which is designed to make it easier for members to offset their electricity use 100%, significantly increasing participation in the program. Net-metered renewable energy system installations have also noticeably increased in recent years as the costs for solar PV has decreased worldwide.

Building Energy Use Trends – Natural Gas

Figure 12

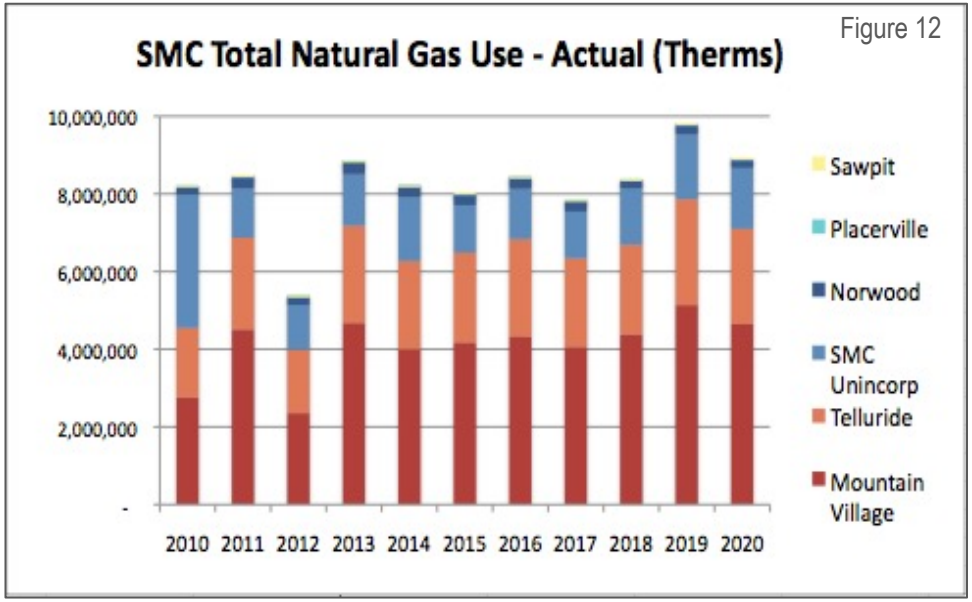
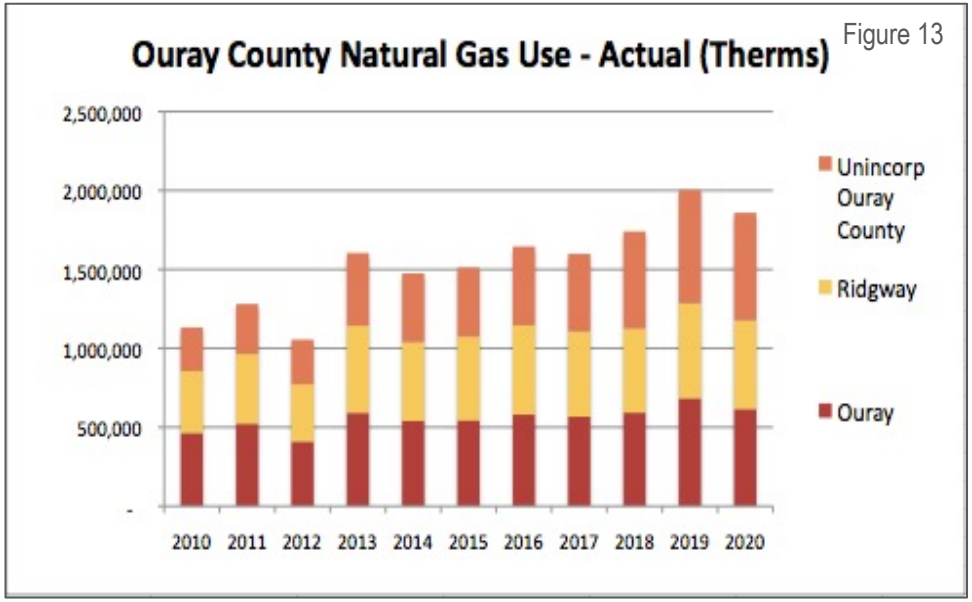


Figure 13



*2012: gap in data provided; & a TMV snowmelt system was under remodel during the winter.

EcoAction Partners tracks annual natural gas use along with weather data for analysis by the SEB. Natural gas use is significantly impacted by outdoor winter temperatures and annual snowfall as it is used to heat buildings and for snowmelt systems. The SEB analyzes actual and normalized natural gas consumption along with weather charts, in order to fully understand the trends. Actual natural gas consumption in San Miguel and Ouray Counties is graphed by jurisdiction in the charts above. The top of each bar indicates the total natural gas use in each county per year.

Actual natural gas use across both counties has been noticeably increasing as our regional economy expands. A dramatic increase in new construction is far out-weighing efficiency program impacts, even with improved building energy codes. We've also seen an increase in natural gas use due to conversions from propane to natural gas, although this impact is difficult to track due to lack of data from propane and natural gas companies. The decrease in 2020 is attributed to the impacts of COVID-19.

Natural gas use can only be offset through carbon offsets (not RECs) since it cannot be produced through renewable energy methods. A transition away from natural gas to electricity is required in order to reach GHG emission reduction goals associated with natural gas.

Building Energy Use Accomplishments

- All governments have taken actions to improve energy efficiency of their buildings and utility uses. A few key examples:
  - Telluride built renewable energy projects and purchases RECs from power produced at the Ridgway Hydro Dam to offset 100% of government electricity use and a significant portion of the community's electricity use.
  - SMC received a $750,000 DOLA grant for energy efficiency, solar PV systems, and solar battery storage for properties in Ilium and Norwood. This project is reducing county carbon emissions by 50%, and SMC is offsetting the rest with SMPA's Totally Green program, resulting in 100% renewable electricity use for SMC.
  - Ouray County is investigating a net zero carbon initiative similar to what SMC is undertaking and is a Totally Green member.
  - The Town of Ridgway has reached 100% renewable energy offset through SMPA's Totally Green program.
  - Ridgway Town Hall, Ouray hot springs/gym and Library, street lighting, and most other government facilities across the region have been converted to 100% LED lighting.
  - The Town of Norwood upgraded all municipal lighting and streetlights to LED bulbs.
  - Ridgway and Ouray collaborated to examine use of performance contracting to improve the efficiency of municipal facilities.
- Enhanced electricity metering & monitoring was made available through SMPA's online SmartHub tool: SMPA improved our ability to track electricity use in real time. Although metering does not reduce emissions directly, it allows residents and business owners alike the opportunity to review hourly electricity use and use data analysis to identify opportunities to improve efficiency and save money.
- 2018 International Energy Code adopted for new construction with local amendments adopted by Telluride, TMV, Ridgway and Ouray County. SMC (which includes Norwood) plans to adopt during 2021. Ophir will likely follow suit soon after.
- Adoption and implementation of Renewable Energy Mitigation Programs (REMP & TEMP) to address mitigation of exterior energy systems (such as snowmelt systems, heated garages, and outdoor spas and pools). Funds collected through these programs have been used on a wide variety of projects to reduce emissions.
- Ridgway secondary school EV charger is now online and fully operational.
- Sunnyside is a new net zero affordable housing community under construction by Telluride and SMC to be completed in 2022.
- EAP's SMPA IQ Weatherization Program (CARE) has successfully weatherized 164 homes between 2017-2021, reducing annual GHG emissions by 280 mtCO2e, significantly saving homeowners and renters on annual utility bills, and improving the comfort and safety of these homes. Participating homes have historically received further utility support through a 50% offset from the SMPA IQ community solar array. The array is currently at full capacity and several key stakeholders are exploring additional solar opportunities earmarked for income qualified residents.
- The Towns of Norwood and Ridgway have gained International Dark Sky designation.
- Telluride Ski & Golf participated in the National Ski Areas Association Climate Challenge from 2012-2019, continuing to make strides toward reducing direct energy use and waste associated with ski area operations as well as influencing indirect GHG emissions of employees and guests.

Building Energy Use Recommendations

OBJECTIVE 1: Beneficial electrification of buildings

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	CO-BENEFITS	PARTNERS
Transition building mechanical equipment and appliances from fossil fuels to electricity through incentives, outreach and building codes. Include: space and water heating, appliances, and other equipment.			Ongoing	SMPA
Encourage transition to/use of geothermal, air source heat pumps, or other available heat exchange technology.			3-10	SMPA, WCU

Beneficial Electrification includes the application of electricity to end-uses that would otherwise consume fossil fuels (e.g., natural gas, propane, oil, gasoline) where doing so satisfies at least one of following conditions, without adversely affecting the others: save consumers money over time; benefit the environment and reduce [GHG] emissions; improve product quality or consumer quality of life; or foster a more robust and resilient grid. (from SMPA, per The Beneficial Electrification League)

This method of reducing GHG emissions has just recently become viable in our region as our overall electricity fuel supply mixture has changed. Previously highly carbon-intensive, Tri-State's electricity emissions factor was too high for electrification to decrease GHG emissions. As our electricity supply shifts to be increasingly sourced from renewable sources, converting traditional uses of fossil fuels to electricity now contributes toward reducing our regional carbon footprint. It will be important for us to work closely with SMPA during this transition in order to track the associated increase in electricity use with fossil fuel use conversion versus electricity use increase for other more traditional reasons, such as visitor population, economy, and new construction.

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Building Energy Use Recommendations

OBJECTIVE 2: Continue to improve building energy codes for new construction, remodels and additions

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Adopt the 2018 International codes with specific local requirements as appropriate and to exceed minimum standards.	●●●○	= $ ● ✚ ☤	1	SMC, City of Ouray, Town of Ophir
Strengthen existing building efficiency standards and codes to require 10% better than basic code construction, update building energy codes at least every 6 years, and move towards net zero energy buildings. Incentivize 'beyond code' construction practices.	●●●○	= $ ● ✚ ☤	Ongoing	EAP, all regional governments
Continue to coordinate regional alignment of energy codes and 'beyond code' preferences.	●●○○	= $ ● ✚ ☤	Ongoing	EAP, all regional governments
Facilitate education for contractors, architects and property managers.	●○○○	= $ ● ✚ ☤	Ongoing	EAP, SMPA, BHE
Promote/incentivize optimal control systems and thermostat settings to couple comfort with efficiency.	●●●●	= $ ● ✚ ☤	1-3	Telluride, MV, Ridgway, City of Ouray, SMPA, BHE
Promote/incentivize building automation systems (such as key card entry activation of electricity in lodging rooms).	○○○○	= $ ● ✚ ☤	1-3	Telluride, MV, Ridgway, City of Ouray, SMPA, BHE, lodging

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Building Energy Use Recommendations

OBJECTIVE 3: Increase natural gas efficiency

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Continue rebate and incentive programs to replace old or inefficient systems/appliances.			Ongoing	EAP, SMPA, Tri-State
Encourage water tank insulation and pipe wrap on hot water systems.			Ongoing	BHE
Provide technical assistance for natural gas heating alternatives.			Ongoing	EAP, BHE

OBJECTIVE 4: Reduce energy consumption in rentals, apartments and multifamily buildings

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Support building automation to optimize efficiency and effectiveness.			1-5	SMPA, Tri-State, EAP, All Regional Governments
Incentivize energy efficiency upgrades in rental properties.			1-5	Telluride, MV, Ridgway, Ouray
Develop renter-specific outreach and education campaigns.			Ongoing	Telluride, MV, Ridgway, Ouray

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Building Energy Use Recommendations

OBJECTIVE 5: Improve the energy efficiency performance of existing buildings

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Continue to provide and educate community members on energy efficiency and renewable energy incentives available from SMPA, BHE, and municipalities.			Ongoing	SMPA, BHE, EAP
Incentivize refrigeration upgrades.			Ongoing	SMPA, Tri-State
Incentivize, mandate & educate on "away" mode technology for second homes when unoccupied.			Ongoing	SMPA, Tri-State
Expand outreach on financing opportunities. Existing examples: Property Assessed Clean Energy; CO RENEW; Alpine Bank and other specialized financing mechanisms.			1-3	Property Assessed Clean Energy, CO RENEW, Alpine Bank
Encourage utilities to implement energy use comparison mechanisms in monthly billing.			3	SMPA, Tri-State

OBJECTIVE 6: Anticipate and mitigate likely expansion of air conditioning use in new & existing buildings

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Avoid or prolong the need for air conditioning via building design and management. Utilize education & outreach to building trades, owners, and facility and property managers.			Ongoing	Architect firms, Property Managers, EAP, All Regional Governments
Encourage high efficiency air conditioning systems as AC use becomes more prevalent.			5-10	SMPA, Tri-State
Coordinate with efforts to adopt high efficiency electric heating systems (i.e. dual ground/air-source heat pumps).			Ongoing	SMPA BHE, Tri-State, All Regional Governments

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Building Energy Use Recommendations

OBJECTIVE 7: Other actions

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Encourage continued regular "cost of service studies" by SMPA to incentivize and balance current and future priorities (i.e., EVs, fuel switching, time of use, peak shaving, energy efficiency, DSM).			Ongoing	SMPA, all regional governments, SMPA members, EAP
Continue to host and expand EcoAction Partners' Green Business Program awarding and highlighting business that achieve energy efficiency and sustainability thresholds.			Ongoing	EAP, local businesses

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Transportation & Aviation

Transportation

The transportation sector encompasses ground transportation of people and goods travelling within, to, from, and passing through San Miguel and Ouray County. GHGs in the transportation sector stem from the combustion of liquid fuels (gasoline and diesel) by a wide range of vehicles and feel impact from a variety of factors (consumer choice, business demand, urban design, housing/business density, transit corridors, commuter and visitor choices, fuel type, etc.). Types of vehicles within this sector include personal vehicles, light trucks, commercial transport vehicles, heavy duty vehicles, and motorcycles. Due to our region's dependence on tourism comprehensively accounting for all GHGs associated with transportation is challenging. In addition, our GHG inventory was not initially set up to account for transit busses/vans, OHVs, RVs, or other vehicles that are increasingly used across the region. Efforts to improve our transportation emissions accounting are underway and will be incorporated starting with the 2020 GHG Inventory. This plan does not intend to decrease tourism in our region, but instead encourages "cleaner" vehicles and recreation opportunities which may reach a wider audience of visitors, without sacrificing our communities' emission reduction goals.

Opportunities and interventions to reduce emissions in the transportation sector span a range of scales and domains. Opportunities include shifting away from single occupancy vehicle use, transitioning to low-emission vehicle options for personal and commercial vehicles, and increasing viability of public transport options. Potential benefits of these changes include reduced congestion, and improved air quality.

Vehicle Transportation Trends

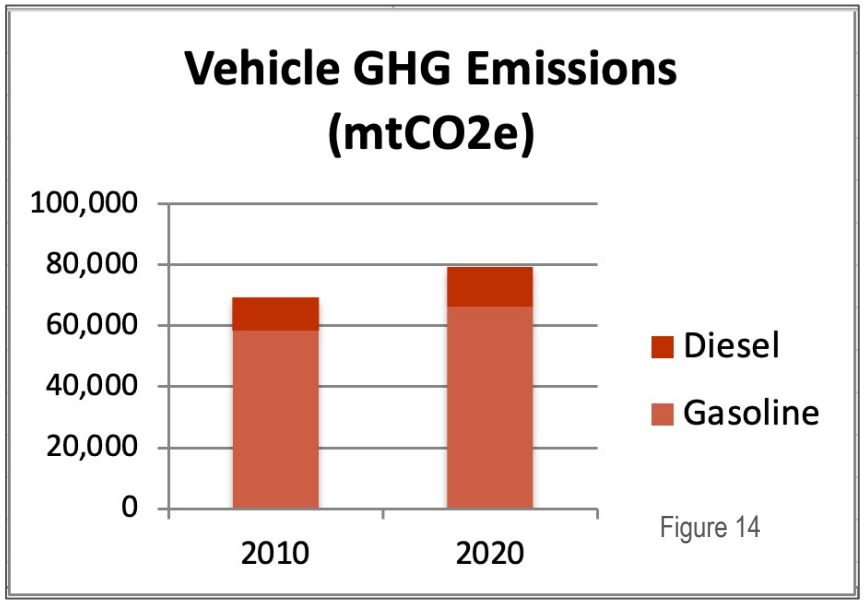


Figure 14

Vehicle emissions have increased significantly since our 2010 baseline, by approximately 24%. This is mainly associated with an increase in our economy. Commuting workers, services of trades people, and a decrease in local affordable housing have increased the amount of workforce related vehicle transportation. The region has also experienced an increase in tourism, with noticeable visitor and service-related traffic increases throughout the year. During the 2020 and 2021 summer season, as people flocked away from cities, camper, motorhome, and similar vehicles became more prevalent. Jeep and OHV traffic has also been increasing, which is difficult to quantitatively capture in our emissions calculations due to the remote nature of the roads they travel.

Vehicle Transportation Accomplishments

- Creation of the San Miguel Authority for Regional Transportation (SMART) to manage and improve public transportation serving San Miguel County.
- Development of Region 10's Four County Transit Study Update report in 2013 identifying needs and opportunities for greater regional public transit.
- Government and commercial business – supplied increases in public transportation opportunities for commuters and visitors.
- Ongoing operation of the free gondola service between TMV and Telluride. Gondola electricity emissions are 100% offset through SMPA's Totally Green Program.

Vehicle Transportation Recommendations

OBJECTIVE 1: Decrease vehicle travel

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Subsidize bus passes for commuting workers.	●●○○	=, $, ●	1-3	TSG, SMART, private employers
Increase affordable and available housing for local workers.	●●●○	=, $	Ongoing	All regional governments
Reduce in-community vehicle use by residents and visitors.	●●○○	●, +	5	All regional governments, SMART
Continue outreach and education efforts around public transit options.	●○●○	●	Ongoing	SMART, Region 10

OBJECTIVE 2: Increase use of electric vehicles

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Improve tracking and analysis of EV station use.	●○○○	$	1-3	SMPA
Increase number of EV charging stations when current EV stations are shown to be at peak capacity.	●●●●	$, ●	1-3	Municipal building departments
Electrify fleet vehicles when viable.	●●●●	●, +	5	SMART, SMPA
Require new construction to be EV ready.	●●○○		Ongoing	Municipal building departments
Develop EV readiness plan for region.	○○○○	$	1-3	SMPA, all regional governments

KEY

GHG Potential 1-4 | = Promotes Equity | $ Economic Sustainability | ● Environmental Quality | + Public Health & Safety | Builds Resilience

Transportation & Aviation continued...

Aviation

GHG emissions with aviation stem from aircraft fuels exclusively. Operational GHG emissions from buildings and vehicles are accounted for in prior sectors. Opportunities to reduce emissions in this sector include increased aircraft efficiency, electrifying ground support equipment, and maximizing capacity on airplanes to reduce fuel consumption per traveler. As aviation primarily serves to bring visitors and part time residents into San Miguel and Ouray County, we expect continued and possibly increased flight volumes. Moreover, as tourism is the primary industry for our region, maintaining its prevalence while optimizing efficiency is our main concern. The Telluride airport is within scope 1+2 of our GHG emissions, as it is within our regional boundaries. The Montrose regional airport is outside of our regional boundaries, but approximately 75% of travelers through the airport are coming to our counties, so we have traditionally included these associated Scope 3 emissions in our GHGI.

Although many airlines intend to reduce GHGs by setting voluntary targets, mandatory fuel efficiency requirements do not exist. Furthermore, because the airline industry operates outside of SEB's direct control, the recommended actions aim to encourage and influence TEX and our regional airports instead of recommending concrete changes. Fortunately, a substantial difference in emissions can be achieved with intentional action when compared to the business as usual scenario.

Aviation Trends

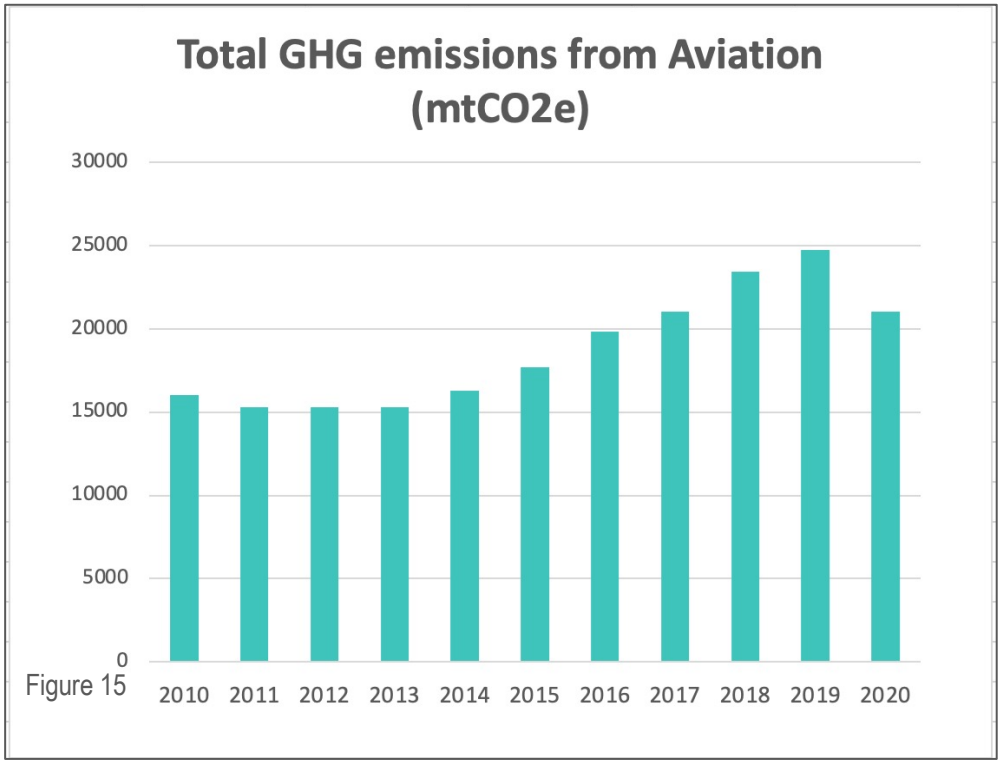


Figure 15

- After relatively steady aviation travel numbers for a few years, the region has experienced a steady increase in airline travel and associated GHG emissions since 2014.
- Funding from local marketing efforts to increase visitor tourism has increased aviation travel and associated emissions.
- The Montrose Regional Airport (MTJ) reported a noticeable decrease in aviation fuel use and enplanements in 2020.
- The Telluride Airport (TEX) reported a decrease in enplanements, but an increase in aviation fuel use from the airport.

Aviation Accomplishments

- TEX began using sustainable aviation fuel (SAF), a biofuel mix, in January of 2020, one of the first airports in Colorado to provide SAF, with a goal of providing it for 25% of fuel sales. Use of SAF will reduce operational emissions of sulfur oxides, particulate matter (both count and mass) and carbon monoxide.
- TEX is preparing a marketing and communications plan for its passengers on the use of SAF with the help of AVFUEL, the fuel supplier, as a means of educating the public & increasing public support.
- Since 2017, TEX has promoted PCI's Carbon offset program to passengers.
- TEX was the first large entity to subscribe to the Last Dollar community solar array to offset emissions.
- While many visitors fly in/out of MTJ, an increase in private shuttle companies has decreased the number of private vehicle rentals.

Aviation Recommendations

OBJECTIVE 3: Decrease GHG emissions per passenger associated with airline flights serving our region

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Educate, conduct outreach, and encourage travelers to support utilization of local carbon offset programs.			Ongoing	Regional airports, Pinhead Institute
Encourage increased use of bio-jet fuel at all regional airports.			Ongoing	Regional airports
Support policies that encourage airlines to increase plane capacity while decreasing flights.			Ongoing	Regional airports

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Waste + Material Use

Our regional waste and recycling volumes are estimated to be approximately 13,300 and 1,830 tons respectively based on the Sneffels Waste Diversion Planning Project completed based on 2015 data. Waste, specifically municipal solid waste, accounts for 4% of San Miguel County and Ouray County's emissions. On average each person generates 8.7 pounds of waste a day (2019 GHGI benchmark), slightly below the Colorado average (9 pounds/day) yet nearly double the national average (4.5 pound/day). San Miguel County and Ouray County's dependence on tourism likely contributes to our high waste rate along with the rest of Colorado. GHGs associated with waste primarily come from organic matter (food scraps, leaf litter, wood, etc.) as it decomposes into methane.

All materials sent to landfills and recycling facilities are transported outside of our regional boundaries to Montrose or Grand Junction and are thus considered Scope 3 emissions. Despite waste being outside our inventory scope, we still track waste volumes and implement programs to decrease material sent to the landfill. Reducing waste is a high priority value within our communities due to our direct ability to reduce waste through the 4 R's: refuse, reduce, reuse, and recycle.

Waste & Material Use

Opportunities to reduce emissions in this sector include diverting and/or salvaging organic materials and increasing the efficiency of hauling and processing. Interestingly a range of benefits come into play from diverting/salvaging organic waste including fertilizer and biogas production, which may be used for local food and energy production. At approximately 45% of our waste stream (according to the Sneffels Waste Diversion Planning Project completed in 2015), and a high contributor to GHGs due to the production of methane, increasing composting is a high priority for our region.

Estimates of Food Waste Weights and Volumes					
	Amount	Pounds/Week	Cubic Yards/Week	Tons/Week	Tons/Year
San Miguel County					
Households	3234	13	28	21	1093
Restaurants	100	300	20	15	780
Total			48	36	1873
Ouray County					
Households	1943	13	17	13	657
Restaurants	25	300	5	4	195
Total			22	16	852
Two County Food Waste Total			70	52	2725
Add Two Parts of Wood Chips			140	45	2325
Total Wet Compost Materials			210	97	5050

Figure 16

We continue to work toward increasing the rate of composting as a method of reducing GHG emissions in our region. Large festival events have had the greatest success with composting food-related waste (with Planet Bluegrass accomplishing a 75% diversion rate!). This is due to the highly controlled festival environment where food vendors can be required to utilize compostable materials which are then collected and transported to a regional compost facility. Small scale composting programs are on the rise, with a successful community composting program in Ophir, a free commercial and residential composting drop-off location in Telluride, and a residential compost pickup program developed by a local entrepreneur. Other composting opportunities continue to be explored with varying levels of progress toward development. Expansion/improvement in these facilities along with the formation of partnerships to increase the regional composting network will allow for major reductions in both emissions and tonnage of waste.

Waste Trends + Accomplishments

General Waste:

- A composition study of condo waste stream is being conducted and coordinated with the EPA. Updated information will be provided when available.
- Continuing to work on gathering improved information on our regional waste and better understand its composition.
- Compost, recycling, and trash management for waste diversion at most large-scale area events and concerts.

Composting:

- With local encouragement and financial support, regional green waste and food-related waste are now compostable at 3XM, a private composting company located in Olathe, CO. Efforts are in place to increase our region's use of this service.
- Dirty Sturdy's, a private composting business, collects food waste from residents and businesses throughout the region which is then composted and utilized locally. They recently received a local grant to expand their collection capacity.
- The Town of Ophir has successfully operated a community composting program since April 2019, diverting approximately 24,000 pounds of food waste by September 2021.

Single Use Plastic:

- Telluride and Mountain Village passed regulations in 2010 to ban single use plastic bags at grocery stores and implemented a 5-cent fee for paper bags.
- Ridgway students initiated the "Carry On Ridgway Reuses" campaign in 2018 that led the way toward Ridgway Council acting against single use plastic bags and straws.
- TMV enacted the Planet Over Plastics Initiative in 2019 to reduce single use plastics in Mountain Village.
- In response to Green Business Program participant requests, EcoAction Partners began collecting plastic film in 2019 for upcycling into Trex decking. Over 1100 pounds have been collected since program inception and it continues to expand.
- Many restaurants have converted takeout materials from plastics to compostables, and the region continues to work toward a collection program for these commercial compostable materials.

Waste Recommendations

OBJECTIVE 1: Reduce the overall volume of waste transported to landfills through efforts to reduce, reuse, recycle, repurpose and compost.

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Require waste haulers to improve waste stream monitoring and data availability.	●●○○	=, $, drop, +, person	1-3	Waste Management, Bruin, 3XM
Encourage waste haulers to use clean energy vehicles.	●●●○	=, drop, +, person	3-5	Waste Management, Bruin, 3XM
Expand plastic film up-cycling program and other recycling programming.	●●●○	=, $, drop, +, person	1-3	EAP, Trex
Continue and expand hazardous waste collection services.	●●○○	=, drop, +, person	Ongoing	SMC, EAP, Waste Management, Bruin, 3XM
Decrease festival and event waste, requiring local management contracts where appropriate.	●●○○	=, $, drop, +, person	Ongoing	Festival owners and managers,
Support restaurants and businesses with waste reduction.	●●○○	=, $, drop, +, person	Ongoing	EAP, all regional governments

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Waste Recommendations

OBJECTIVE 2: Increase composting use and capacity in the region

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Increase community compost programs and individual residential composters, and encourage participation in composting programs.			1-5	Waste Management, Bruin, 3XM, EAP
Make finished compost available for local use.			1-5	All regional governments
Implement large-scale green waste collection programs.			1-3	Waste Management, Bruin, 3XM

OBJECTIVE 3: Decrease construction & demolition waste

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Reduce construction & demolition waste through education, encouragement, incentives, and ordinances.			3-5	Municipal building departments

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Food

Food accounts for 11% of our region's GHG emissions. Though it is considered a Scope 3 emission it is also a high priority to address in meeting our goals. Emissions within our food system come from the production, transportation, and storage of goods. With a tourist economy located in a remote high-alpine mountain region, most of our food is grown, produced, processed, and transported from lower elevation regions. Producing and consuming local food allows for a significant reduction in these GHG emissions, as well as the opportunity to support local environmentally-friendly agriculture and small businesses. Food is included in this CAP because of its intimate connection to both human and environmental health.

Actions within this sector represent significant research and community resilience opportunities.

Food Accomplishments

- Number and size of farmers markets across the region have increased.
- Local agricultural production across SMC, OC, and the Western Slope has increased.
- Distribution of locally produced food has increased through the development of CSA's, food cooperatives, delivery businesses, and other options.

Food Recommendations

OBJECTIVE 1: Increase local organic/natural food production and consumption.

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Continue to increase local food supply and consumption.	●●●○	= $ ● +	Ongoing	Regional farmers markers, food co-ops and agricultural producers
Incentivize and explore innovative methods to expand the growing season, increase production, and implement alternative growing strategies (greenhouses, hydroponics, permaculture, etc.).	●●●○	= $ ● +	3-5	San Miguel Basin Extension Office
Develop local food production monitoring program associated with GHG reductions.	●●○○	= $ ● +	1-3	PES Program

KEY

GHG Potential 1-4 | = Promotes Equity | $ Economic Sustainability | ● Environmental Quality | + Public Health & Safety | Builds Resilience

Water

GHG emissions associated with water use in our region come from water pumping and treatment. Nearly all GHG emissions associated with water treatment are tied to energy supply for those systems, while additional energy used for heating water is included in the building energy use sector. While GHG emissions associated with municipal water comprise less than 2% of our region's total emissions, we have included it in this CAP as it is intimately tied to environmental and economic health of our region.

Due to the relationship between water and energy use, our recommendations in this section primarily focus on reducing the use of energy associated with water consumption, pumping, and treatment. We recognize the importance of water conservation planning, metering and monitoring, and implementation of water conservation policies and efficiency technologies. Creative solutions to reduce water consumption, such as eliminating use of potable water for irrigation, will need to be considered as part of creating a sustainable future.

Water scarcity is nothing new in Western Colorado and we applaud the efforts and actions made by Southwestern and Tri-County Water Conservancy Districts, San Miguel Watershed Coalition, Uncompahgre Watershed Partnership, as well as public and private landowners working to improve water quantity and quality now and for years to come. We hope to contribute to the goals outlined in our region’s plans for water security, while recognizing drought mitigation stands beyond the scope of this CAP.

Water Trends

Figure 17

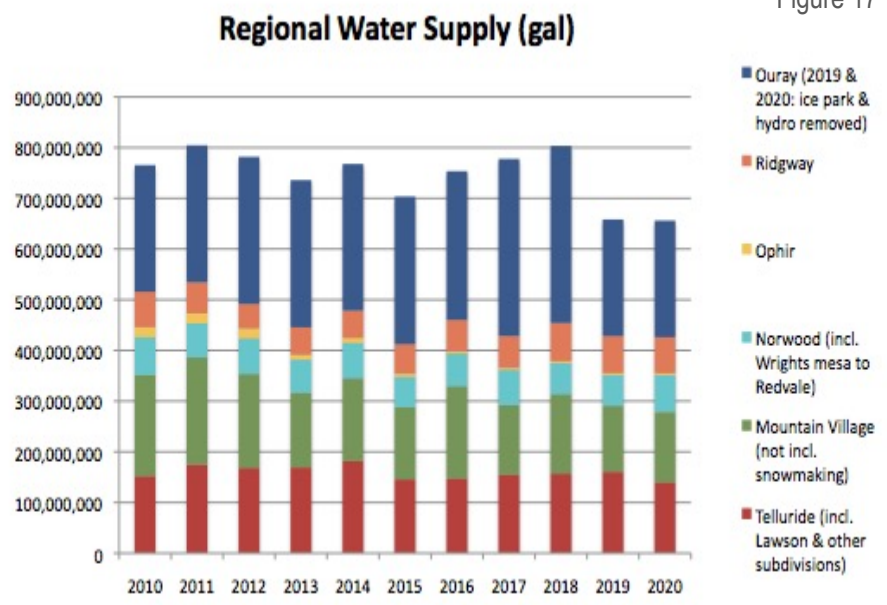
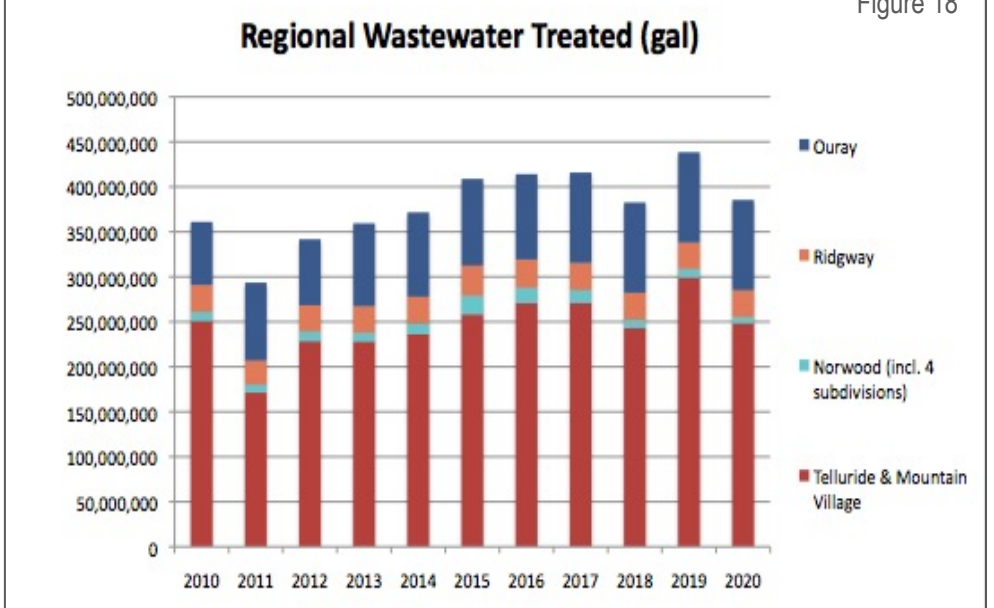


Figure 18



EcoAction Partners tracks annual water use by communities across the region for the SEB to analyze usage, consumption, and energy associated with water supply and wastewater treatment. Significant changes in domestic water use have been noticed to be associated with water leaks and their repair and an increase of water use for irrigation during drought years. As our visitor economy increases, population expands, and new homes and commercial buildings are constructed, we must continue to closely track changes in our water usage associated with this increased demand.

Of note for the above charts:

- The City of Ouray continues to work on improving their means and methods toward tracking accurate water consumption and treatment data. Since the city's water is supplied via gravity, water leaks in the supply system have been treated with less concern than for communities that must pump their water supply, which leads to a relatively high volume for the size of the community.
- Enforced irrigation restrictions in drought years create a noticeable reduction in water use.
- Many consumers of municipally-supplied water are on septic systems, and thus not served by wastewater treatment plants.

Water Accomplishments

- Water conservation plans have been adopted by the Towns of Telluride and Ridgway.
- Drought mitigation plans were adopted and are enforced by Towns of Telluride, Mountain Village, Ridgway, Norwood, and Ophir.
- Norwood installed a raw water irrigation collection system.
- The Town of Ophir identified and fixed a significant water supply leak in 2013, reducing its water supply volume in half.
- Increase in percentage of households with low flow fixtures across the region.
- Hazard mitigation plans for addressing drought conditions:
  - San Miguel County
  - Ouray County
- San Miguel River and Uncompahgre Watershed coalitions each produce water health reports.
- Increase in local, regional, and statewide organizational efforts to address water consumption across Colorado.

Water Recommendations

OBJECTIVE 1: Reduce water consumption from municipal and industrial uses

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Track water and wastewater use data, associated energy use, and impacts of conservation/drought mitigation measures.			Ongoing	Municipal water departments
Evaluate and implement system methodologies to reduce water-associated energy use.			1-3	Municipal water departments
Encourage and Incentivize low flow water fixtures.			1-3	CO state govt, Municipal water departments

OBJECTIVE 2: Improve watershed health and security

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Continue to develop, adopt, implement and enforce municipal drought mitigation plans.			Ongoing	All regional governments
Support efforts of organizations (local, regional, and statewide) that focus on water security and watershed ecological health.			Ongoing	SMC Watershed Coalition, Uncompahgre Watershed Partnership

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Land

Land use contributes to both emissions and sequestration of our region's GHG emissions. Carbon exists in different forms across our landscape. Soil, plants, water, and other aspects of our region's ecosystem exchange carbon for different uses creating a dynamic state of equilibrium. Land use such as tilling, planting and fertilizing cropland, and grazing livestock releases ecosystem carbon and nitrogen as greenhouse gases into the atmosphere in the form of carbon dioxide and other GHG trace gases such as nitrous oxide and methane. Simultaneously, other forests, vegetation, wetlands, designated open space, and many agricultural practices sequester carbon and increase moisture retention of the land.

In 2019, San Miguel County hired Marc Easter Consulting LLC in tandem with DBA Farm Table & Sky to conduct a land use GHG inventory for the county. Their study provided insights into what changes could improve soil health (water retention and infiltration, nutrient cycling, and crop capacity) and increase GHG emissions and sequestration potential of SMC land. These recommendations helped guide the development of SMC's Payment for Ecosystem Services Program. The PES plan highlights those exciting opportunities for ranchers, agriculturalists, and other land managers to receive monetary compensation for the environmental actions they practice.

Land Use - Forestry

San Miguel County Non-Federal Land Cover

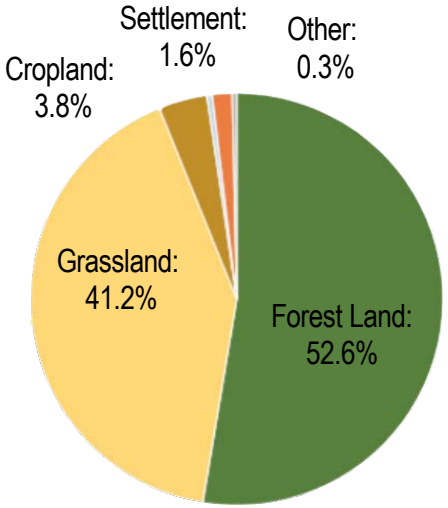


Figure 19

Ouray County Non-Federal Land Cover

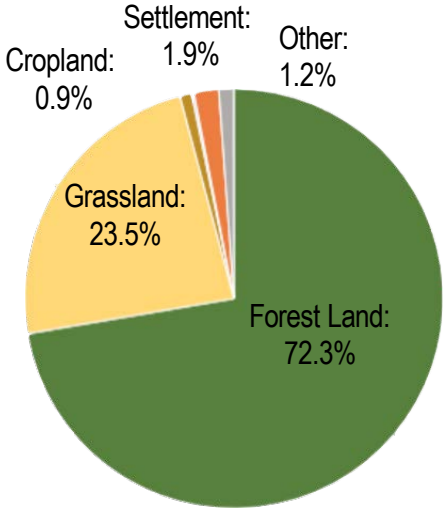


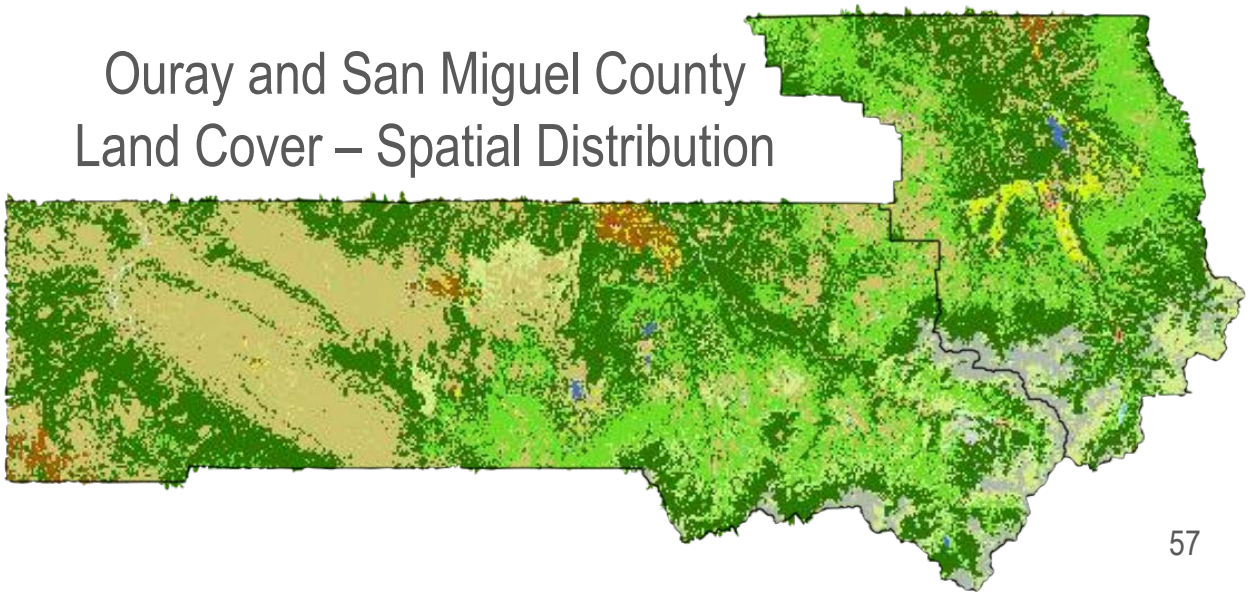
Figure 20

The health, function, and structure of our diverse ecosystems intimately relate to both our economic sustainability and resilience to the stressors of climate change. Changes in vegetation cover due to disturbances or natural succession impact our landscape's ability to sequester carbon. The following section describes changes in our beloved landscape and the impacts it has on GHG emissions and reductions. Because our municipal and county governments hold little control over federal land practices, we have chosen to exclude federally owned and operated land from our emissions calculations but feel it is important to understand and account for these changes in our goal setting and program creation decisions.

Forests make up the vast majority of our region's ecosystems (72.3% in Ouray County, 52.6% in San Miguel County) with grasslands constituting most of the remainder (23.5% in OC, 41.2% in SMC). In total, our ecosystems remove around 181,000 mtCO2e annually from the atmosphere, roughly half of our annual regional emissions. There's potential through PES and other local land initiatives to increase this sequestering capacity and promote long-term forest health.

Figure 21

Ouray and San Miguel County Land Cover – Spatial Distribution



Land Use – Forest Disturbances

Figure 22

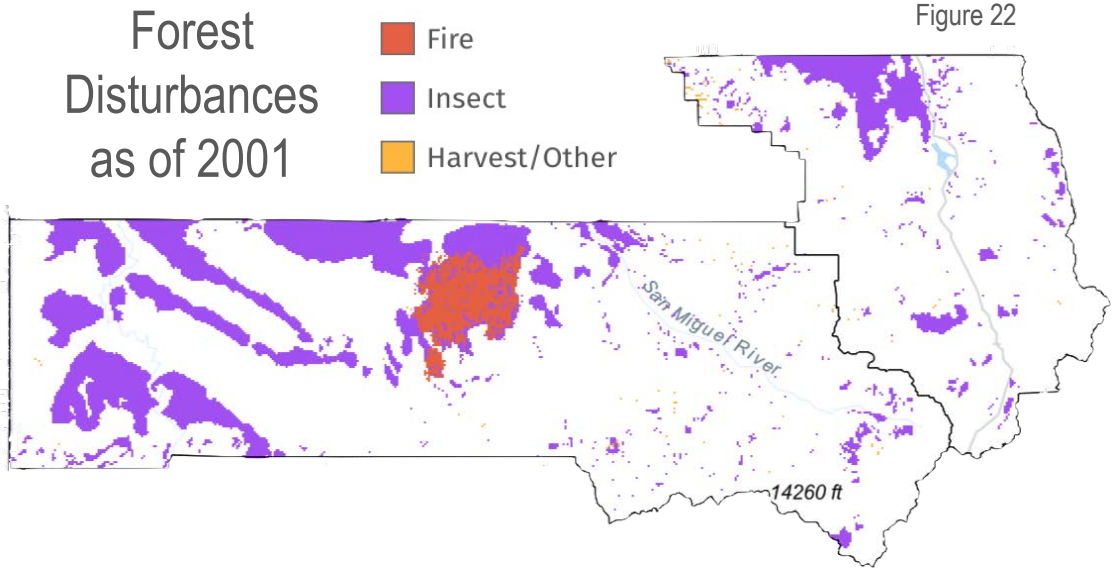
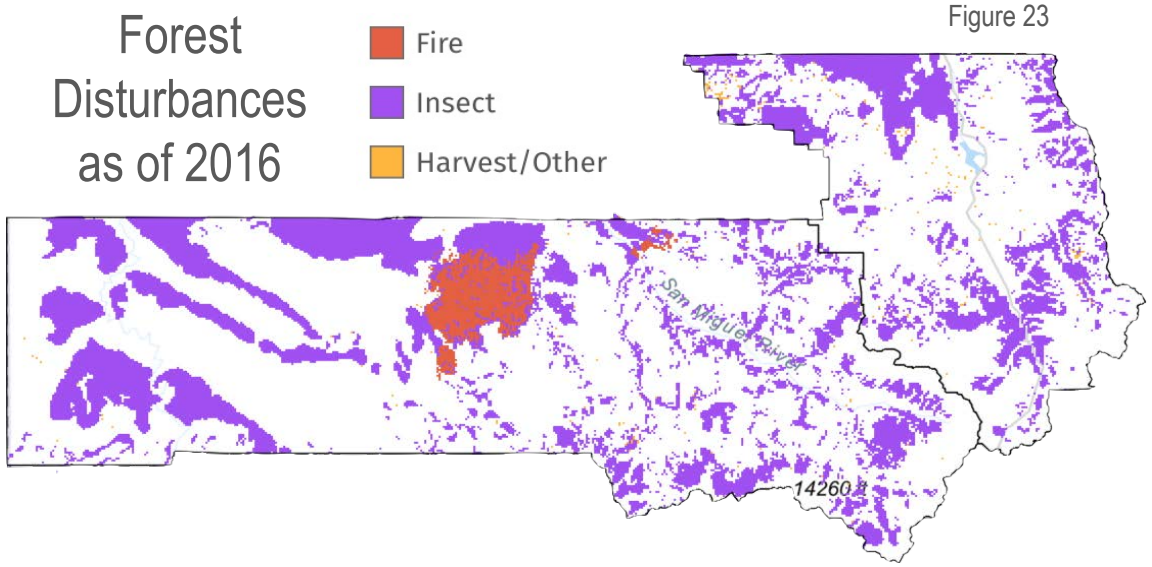


Figure 23



Though most of our region's forests remain healthy year to year, there has been a drastic increase in forest disturbances, specifically insect damage.

From 2001-2010, insect damage impacted roughly 68,000 acres of our region's non-federal lands. The extent of this damage is depicted left on both federal and non-federal land. The GHG inventory accounting covers the emissions and reduction changes from 2011 onward to correlate with our 2010 baseline year.

The primary impacts of insect damage takes three forms.

1. From a GHG perspective; prevents our forests from removing carbon from the atmosphere and produces its own emissions.
2. From a risk perspective; greatly increases the risk of severe forest fires and mudslides.
3. From an ecological perspective; disrupts several ecosystem processes including soil stability, flood control, wildlife habitat, and nutrient exchange. These may produce serious compounding affects, not fully accountable in a GHG inventory.

Land Use Accomplishments

- Areas throughout the region that have been set aside as open space sequester carbon, including Telluride's Valley Floor.
- Land Trusts throughout the region have grown, preserving land and preventing development through conservation easements.
- SMC established and has maintained a Baseline Soil Health Study since 2016, with a plot program study based on 25'x50' plots of land.
- SMC planted the Pollinator Garden at the County's Down Valley park in 2017 and continues with plantings and management of this 7500' garden each year.
- A Rare Plant Study was completed by SMC in 2010.

Payment for Ecosystem Services

San Miguel County is piloting a soil health Payment-for-Ecosystem-Services (PES) Program to develop a protocol to help farmers and ranchers improve their soil and increase the water holding capacity. Soil scientists across the world are studying the effects of increasing soil organic matter and encouraging healthy soil microbes in order to produce healthier and better yields of grass and/or crops for years to come. Increasing the soil's water holding capacity may help ease the effects of droughts as the soil acts more like a sponge, holding onto more of the water that falls. Balanced and healthy microbial activity can increase plant growth and maintain a soil environment which may decrease the opportunity for invasive plants to get established. The pilot program will also explore the levels of carbon that can be sequestered within our local soils. Ideally, this will develop into a way for farmers and ranchers to get paid for ecosystem services centered on soil health. Funding for the program falls under the County's Open Space Commission and includes funding for forest health initiatives, a fen wetland study, and community education.

Land Use Recommendations

OBJECTIVE 1: Increase the GHG sequestration and water retention capacity of land in the region

OBJECTIVE 2: Increase yield and health of crops and livestock through use of regenerative agricultural and ranching practices

OBJECTIVE 3: Increase GHG sequestration capacity of trees and plant life in the region

*Objectives apply to all actions

Action	GHG Reduction Potential	Co-Benefits	Timeline	Partners
Support San Miguel County in implementing their Payment for EcoSystem Services (PES) Program.	●●●●	●●●●●	1-3	SMC, agricultural producers, ranchers, landowners
Quantify GHG impacts of carbon sequestration actions and relate them to our GHG emissions inventory.	●○○○	○○●○○	3-5	EAP
Increase measures to promote and protect healthy forests.	●●○○	○●●○●	Ongoing	SMA, all regional governments
Implement programs, develop incentives and encourage the planting of trees appropriate for specific ecological zones.	●●○○	●●●●●	Ongoing	All regional governments, Seas for Trees
Encourage landscaping according to best practices for local ecological zone.	●●○○	○●●●●	Ongoing	All regional governments, building departments
Improve wetland protection.	●●○○	○○●●●	Ongoing	All regional governments, SMA, TI

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Acknowledgments

The San Miguel and Ouray County Regional Climate Action Plan was prepared by EcoAction Partners with extensive input from the Sneffels Energy Board. It would not be possible without the expertise, time, and dedication of this Advisory Committee. Many other stakeholders representing all sectors provided expertise and data to support the development of this CAP and GHG Inventory analysis. We would like to express our thanks to each of them.

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Sneffels Energy Board:

Organization	Person	Title
City of Ouray	Ethan Funk	City Council member
Ouray County	Ben Tisdell	County Commissioner
Ouray County	Jake Niece	County Commissioner
San Miguel County	Lance Waring	County Commissioner, EAP Board
San Miguel County	Starr Jamison	Natural Resources & Special Projects Director
Town of Mountain Village	Patrick Berry	Town Council member, EAP Board
Town of Mountain Village	Zoe Dohnal	Business Development & Sustainability Director
Town of Ophir	Ken Haynes	Ophir Town Manager
Town of Ridgway	John Clark	Ridgway Town Mayor
Town of Ridgway	Preston Neill	Ridgway Town Manager
Town of Telluride	Karen Guglielmone	Environmental & Engineering Division Manager
Town of Telluride	Todd Brown	Town Council member, EAP Board
San Miguel Power Association	Alex Shelley	Communications Executive
San Miguel Power Association	Kevin Cooney	SMPA Board member, EAP Board
San Miguel Power Association	Phil Zimmer	Energy Services Executive
San Miguel Power Association	Terry Schuyler	Key Account Executive
San Miguel Power Association	Wiley Freeman	Manager of Member Services & Marketing
EcoAction Partners	Audrey Morton	Previous EAP Board Director
Pinhead Climate Institute	Adam Chambers	Climate Scientist
Ridgway Ouray Community Council	Dave Jones	ROCC Clean Energy Committee
Rotary International of Telluride	Madeline Allen	SMC community representative
San Miguel Authority for Regional Transportation	David Averill	Executive Director
Seas of Trees	Joanna Kanow	SMC community representative
Telluride Institute	Tucker Szymkowicz	Executive Director

Other Contributing Stakeholders:

Organization	Person	Title
Black Hills Energy	Ed Holland	Black Hills Energy Small Business Direct Install Program
Bruin Waste Management	Chris Trosper	Manager
City of Aspen	Chris Menges	Climate & Sustainability Programs Administrator
Lotus Engineering & Sustainability	Julia Ferguson	Managing Director of Communications and Engagement
Lotus Engineering & Sustainability	Rachel Meier	Research Associate
Montrose Regional Airport (MTJ)	Vendla Stockdale	Property & Contracts Director
Telluride Regional Airport (TEX)	Kenneth Maenpa	Airport/FBO Manager
Telluride Ski & Golf	Erin Kress	Mountain Operations Administrator
Wilkinson Public Library	Joanna Spindler	Adult Programs Specialist
Telluride Ecology Commission		
Mountain Village Green Team		
Ridgway Ouray Community Council		

Appendix

Additional supporting materials can be found on the CAP supporting documents webpage

Appendix 1: Jurisdiction Specific Action List

The actions included in this appendix offer additional municipal/jurisdiction specific actions selected to support accomplishment of our regional objectives. We offer this information to illuminate potential actions for each municipality within our region, as actions for some may be achievements for others (i.e., water and/or energy metering).

We invite additional and more specific actions to be added to this section during the community outreach and engagement phase of plan development.

San Miguel County

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Adopt 2018 International codes with specific local requirements to exceed minimum standards.			1	SMC, building trades

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Town of Telluride

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Promote/incentivize optimal control systems and thermostat settings to couple comfort with efficiency.	●●●●	=, $, ●, +, ♿	1-3	Telluride
Promote/incentivize building automation systems (such as key card entry activation of electricity in lodging rooms).	●●○○	=, $, ●, +, ♿	1-3	Telluride
Incentivize energy efficiency upgrades in rental properties.	●●○○	=, $, ●, +, ♿	Ongoing	Telluride
Develop renter-specific outreach and education campaigns.	●○●●	=, $, ●, +, ♿	1-3	Telluride

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

Town of Ridgway

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Encourage the use of proven and durable green building technology in all new developments in order to increase energy efficiency, water conservation, human health, and use of local materials while balancing the impact of costs.			Ongoing	Ridgway
Encourage the use of innovative building practices and materials (e.g., straw-bale construction) when such methods would increase energy efficiency, ease greenhouse gas emissions, and reduce home costs.			Ongoing	Ridgway
The Town is a project partner in the Ridgway Space to Create Project, which is a new construction, mixed-use, affordable rental housing project in historic downtown Ridgway. Encourage the installation of a solar photovoltaic system on the building.			1-3	Ridgway
Promote/incentivize optimal control systems and thermostat settings to couple comfort with efficiency.			1-3	Ridgway
Promote/incentivize building automation systems (such as key card entry activation of electricity in lodging rooms).			1-3	Ridgway
Incentivize energy efficiency upgrades in rental properties.			Ongoing	Ridgway
Develop renter-specific outreach and education campaigns.			1-3	Ridgway

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Smart Building Program: Promote energy efficiency, energy reduction, and renewable energy use by waiving up to 100% of permit fees for those renovating, expanding, or building.			Ongoing	Mountain Village
Solar Co-Op: Promote solar through assistance/rebates for homes/businesses that offset energy with a renewable source.			Ongoing	Mountain Village, Solar United Neighbors, TMVOA
Farm to Community Incentive: Promote local food sourcing with 14-week food share of local produce and food items and encourage non-qualifying residents to become CSA members.			Ongoing	Mountain Village
Compost Incentive: Incentivize diversion of organics by providing household composting units, scales, and training.			Ongoing	Mountain Village
Cedar Shake Incentive: Incentivize re-roofing to fire-rated roofing materials by waiving building permit fees.			Ongoing	Mountain Village
Wildfire Mitigation/Defensible Space: Promote creation of defensible space by reimbursing costs up to 50% or $10,000.			Ongoing	Mountain Village
Smart Irrigation Controls: Incentivize water conservation by providing a rebate for the purchase and installation of EPA WaterSense smart irrigation controls.			Ongoing	Mountain Village
Promote/incentivize optimal control systems and thermostat settings to couple comfort with efficiency.			1-3	Mountain Village
Develop local hydropower capacity (through existing dam retrofits, micro-hydro, pico-hydro, and run of the river, etc.)			7-10	Mountain Village
Promote/incentivize building automation systems (such as key card entry activation of electricity in lodging rooms).			1-3	Mountain Village
Incentivize energy efficiency upgrades in rental properties.			Ongoing	Mountain Village
Incentivize large employers that provide seasonal housing to deploy large-scale energy efficiency upgrades.			Ongoing	Mountain Village
Develop renter-specific outreach and education campaigns.			1-3	Mountain Village

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

City of Ouray

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Develop local hydropower capacity (ideally through existing dam retrofits, micro-hydro, pico-hydro, and run of the river.			Ongoing	City of Ouray
Install methane digesters, both small and large (adequate feedstock provided).			3-5	City of Ouray
Adopt 2018 International codes with specific local requirements to exceed minimum standards.			1-3	City of Ouray, building trades
Promote/incentivize optimal control systems and thermostat settings to couple comfort with efficiency.			1-3	City of Ouray
Promote/incentivize building automation systems (such as key card entry activation of electricity in lodging rooms).			1-3	City of Ouray
Incentivize energy efficiency upgrades in rental properties.			Ongoing	City of Ouray
Develop renter-specific outreach and education campaigns.			1-3	City of Ouray
Install water meters.			1-3	City of Ouray
Improve water usage data.			Ongoing	City of Ouray

KEY

GHG Potential 1-4 | Promotes Equity | Economic Sustainability | Environmental Quality | Public Health & Safety | Builds Resilience

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Install solar PV on municipal buildings and facilities	✓ ✓ ✓ ✓	= $ ✓ + ✓	1-5	Norwood
Develop and implement energy saving and environmentally sound domestic water conservation plans	✓ ✓ ✓ ✓	= $ ✓ + ✓	1-3	Norwood

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Town of Ophir

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Adopt 2018 International codes with specific local requirements to exceed minimum standards.	●●●●	= $ ● +	1	Ophir, building trades
Install water meters.	●○○○	= $ ● +	1-3	Ophir, Ophir Water Commission
Develop and implement energy saving and environmentally sound domestic water conservation plans.	●●○○	= $ ● +	1-3	Ophir, Ophir Water Commission

KEY

GHG Potential 1-4 | = Promotes Equity | $ Economic Sustainability | ● Environmental Quality | + Public Health & Safety | Builds Resilience

ACTION	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMELINE	PARTNERS
Transition government vehicles to electric.			1-5	Ouray County, Enterprise
Utilize SMC's Land Use GHG Inventory and PES Program to develop and implement similar land use recommendations.			1-3	Ouray County, agricultural landowners, forest land trusts
Update county facilities with LED bulbs, weatherization, and efficiency treatments to reduce energy use, electrify space and water heating, and install behind the meter solar to cover 100% of Ouray County's electricity use.			1-5	Ouray County

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